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### MESSAGE from the President of Suan Sunandha Rajabhat University



On behalf of the organizer team at Suan Sunandha Rajabhat University, I would like to express appreciation for your interest in this year International Conference on Management, Innovation, Economics, and Social Sciences. The ICMIESS 2020 is a great opportunity for lecturers, staff, current graduate students, and our co-hosts to be actively engaged in academic, applied, and action research and to share it to others at this conference.

I congratulate all the presenters for having been selected to present in the conference. I appreciate your hard work and wish everyone success in this event and beyond. Despite being organized online because of COVID-19, the conference can be just as great, if not better, as any other conferences you have attended. Let us open our minds to all the interesting paper presentations. I hope you enjoy and take care of yourself.

Lastly, this is the first time of ICMIESS but potentially not the last. As the world of innovation and management is evolving, there will be great benefits of having such a conference again. We will keep improving ourselves and hope that these conference papers will do you the same. The range of topics in this conference proceedings provide great insight into how we can adjust ourselves to keep up with the changing environment in the field at the turn of the decade.

Associate Professor Dr. Chutikarn Sriviboon

### MESSAGE from the Dean of College of Innovation and Management



As the host of the International Conference on Management, Innovation, Economics, and Social Sciences 2020, I am happy to welcome all of you to join us in the conference. Some of us will be presenters today, and others will be giving short speeches in the welcoming session. I would like to take this opportunity to thank our co-hosts: Sanmenxia Polytechnic, China, Ya-an Polytechnic College, China, Haikou University of Economics, China, Chihlee University of Technology, Taiwan, and Chinese Culture University, Taiwan, and Nakhon Pathom Rajabhat University, Thailand. We have also invited some representatives of our co-hosts to give us short speeches. A special thank also goes to Mr.Asim Iftikhar Ahmad, the Ambassador of Islamic Republic of Pakistan to the Kingdom of Thailand who will offer us some insight into the global event today. We are excited to hear keynote speeches from Professor Dr. Kai Heuer, Dr. Mengyi Xu, and Mr. Kiattipoom Nantanukul before our 200 presentations that follow. Thank you for all your contributions and please take care

Associate Professor Dr. Bundit Pungnirund

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# INNOVATION AND EXPLORATION OF TALENT CULTIVATION MODE FROM THE PERSPECTIVE OF "PRODUCTION-EDUCATION INTEGRATION"

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### **ABSTRACT**

In the field of maternal and infant health services, which is in great demand but lacks high-quality personnel in china, the school adopts the integration of production and education to Promote the reform of education and teaching, and optimizes the curriculum system by adding or adjusting the professional direction, to establish a feasible personnel training program by building a joint education system of school- enterprises and school-government, and to train and send high-quality personnel for maternal and infant health services.

**Keywords**: Production-Education Integration, Innovation, maternal and infant health service, Talent Cultivation Mode.

### **INTRODUCTION**

"Production-Education Integration" is an important policy to promote the development of higher education, to strengthen the cultivation of innovative and applied talents, and to promote the comprehensive reform of education as a whole. 1 National medium and long-term educational reform and development program (2010-2020)points out that colleges and universities should firmly establish the consciousness of taking the initiative to serve the society, provide all-round services, promote the integration of production, teaching and research, integrate industry with education, and integrate production with teaching, continuously enhancing the ability of colleges and universities to serve economic and Social Development <sup>2</sup>. The outline of the "healthy China 2030" plan promulgated by the State Council in 2016 states that "new modes of health services shall be developed, and the development of maternal and infant care services shall be standardized. " <sup>3</sup>. In the context of the integration of industry and education, as a comprehensive university with many years of experience in running medical schools, at the time when the state is standardizing the development of maternal and infant care services related industries, how to integrate the maternal and infant health industry with the education and teaching in colleges and universities, and how to send high-quality maternal and infant health service personnel to the society is a realistic subject worthy of our exploration.

### 1.background

The current situation of the demand for talents in maternal and infant health industry 1.1 there is a huge demand for maternal and infant health services

With the implementation of the country's "two-child" policy, the arrival of peak compensatory fertility. The majority of the population born in the 1980s and 1990s have strong willingness and ability to purchase maternal and infant health services due to the general improvement of their education level, income level, quality of life and health needs,

the demand for maternal and infant health services is developing in a spurt. In China, the length of postpartum hospitalization is relatively short, and the maternal and child health service has not formed a continuous and complete service system.<sup>4</sup> In the process of transition from hospital to community, there is a gap in service demand for maternal care and rehabilitation, newborn care and health education.<sup>5</sup>

1.2 Low-quality maternal and infant health service practitioners

Driven by the market demand, a number of private training institutions for mother and infant care have sprung up all over the country. In the personnel access standards, training methods, training content and training teachers, there are good and bad intermingled phenomenon.

1.2.1 non-uniform standards of access

Entry Standard threshold is low, the majority of employees from laid-off workers, rural, migrant workers, low education, mainly primary and junior high school, uneven quality <sup>6</sup>.

1.2.2 Non Standard training methods

The veteran takes the novice, by the experience education, after the working Continuing education almost does not have <sup>7</sup>.

1.2.3 The training content is uneven

Fang Xiuxin <sup>7</sup>showed that the content of maternal and infant nursing training is not perfect, and some maternal and infant nurses have not studied maternal nutrition, psychological counseling and related laws and regulations.

1.2.4 insufficient training *time* 

Usually 7-15 days, some even a few days. Such a short time can't guarantee the quality and effectiveness of training.

For the above reasons, There are huge risks to the safety of mothers and babies, the service quality is worrying. It is imperative to improve the quality of the personnel of maternal and infant health services.

### **DISCUSSION**

### A preliminary study on the training mode of maternal and infant health service personnel

In the field of maternal and infant Health Service, which is in great demand but lack of high-quality talents, schools have the responsibility and advantage to train high-quality innovative and applied talents for local economic and social development. College nursing students who have received medical nursing education can provide more professional and comprehensive services; have more scientific and novel knowledge, more standardized skills and more reliable service; have better energy and Physical Strength; and have more common language with new parents, easy to communicate; more receptive to new things, easier to master new skills<sup>8</sup>.

In addition to the above qualities and abilities, some students of nursing and preschool education have also participated in the training of the national professional qualification certificate "baby-sitter".

However, it is not enough for a parturient to carry out all-round and scientific nursing rehabilitation care either in theory or in practice. A qualified maternal and child health provider needs to combine the functions of a nanny, a nurse, a cooker, a post-natal nurse, a post-natal rehabilitation nurse, a baby-sitter, and a preschool teacher.

2

This requires schools to combine the existing professional advantages and characteristics, by adding or adjusting the professional direction of some innovative exploration.

## 2.1 development of a modular curriculum system for maternal and infant health services in collaboration with colleges

### 2.1.1 Establishing "double-qualified" professional innovation team

Make full use of the university's existing rehabilitation, preschool education, Art, animation design of the faculty and affiliated hospitals obstetrics, Dali Maternal and Child Health Care Hospital Health Care Staff. Foster a professional team of innovative maternal and child health services. The team members not only have qualifications but also have professional training certificates issued by the Ministry of Human Resources and Social Security of the People's Republic of China, including breast feeding counselors, postpartum rehabilitation counselors, psychological counselors, Dietitians, parent child counselors, and counselor.

### 2.1.2 Adjust the talent training program and optimize the course system

Our school should be guided by the market demand and employment of the maternal and infant health service industry, combine the existing professional advantages and the characteristics of the school, and set up or adjust the professional direction to determine the maternal and infant health training goal, draw up the feasible personnel training plan, optimize the course system.

Based on the demands of the mother and baby service market, this paper combs the existing curriculum system with the OBE teaching concept, and on the basis of the existing compulsory courses of gynecology and obstetrics nursing and pediatric nursing, increase the integration of "human development" , "maternal and infant health" , "genetics and eugenics" , "infant psychology" , "infant play" , "rehabilitation training" and other parts of the curriculum related to maternal and infant health services. To set up the overall structure of courses, break down the barriers between courses, and avoid the

repetition and contradiction of knowledge, integrating nursing, rehabilitation, pre-school education, and maternal and child health services related books and content in the teaching team on the basis of the established curriculum, design a professional, scientific and comprehensive practical mother and child Health Service curriculum system with innovative features.

### 2.1.3 "internet + " online and offline mixed teaching mode

Under the integrated education model of Industry and education, the development of high-quality digital online education resources and the construction of the mother and child health curriculum learning platform "internet + " can make the world's online educational resources share, the integration of Industry and education is no longer confined to books and classrooms. And Knowledge Fragmentation into 5 minutes of short video, in line with the current network of Aboriginal 90 and 00 learning needs.

### 2.1.4 Develop maternal and child health services APP

According to the concept of "Internet" + education, we try to develop an innovative and practical maternal and child health service APP to take advantage of professional cross-disciplinary advantages and complement the advantages of teachers in Computer Science.

The vital signs including basic information, body temperature, pulse, respiration, blood pressure, frequency of micturition and defecation, inflammation and pain of perineum (Cesarean Section) wound, fullness and dredge of breast, feeding method, psychological state and social support were recorded in real time by data and photos or video in APP.

The baby's indicators: APGAR score, Jaundice Monitoring, stool and urine, breast milk intake, body weight and head circumference monitoring, sleep time, body skin integrity, umbilical cord healing, bathing touch swimming, active passive exercise, parent child communication time, and so on.

The platform can not only record the changes of the physical,psychological and social development of mothers and babies, but also provide consultation and scientific system guidance for maternal and child health services on the network with experts, so as to prevent complications during the puerperium of mothers and babies and thus promote maternal and child health.

### 2.2. cooperation between schools and enterprises and benefit-sharing

According to the policy of "overall coordination, joint promotion, service demand, optimized structure, cooperation between schools and enterprises, cooperation and education" put forward in "some opinions on deepening the integration of industry and education", we can innovate the combination of industry and education with Maternity and Child Care Center, train the real and practical talents with high quality of maternal and Child Health Service, and expand the employment scope of students.

### 2.2.1 co-operation

School and enterprise jointly build the mother and Child Health Service Training Base and training facilities, our school of nursing to carry out the training of infant care has a certain training facilities, there are a few models of mother and baby: for example, the model of maternal and placental umbilical cord;

In order to provide maternal and child health services, the maternity and child health centers will purchase many advanced instruments for the needs of their customers, such as neonatal touch bath and swimming facilities, pelvic floor muscle pulse therapy instrument, Nutritional Assessment Instrument, breast dredge instrument, postpartum physical conditioning and other modern equipment of postpartum rehabilitation. These modern front-line real-life scenarios and various devices allow students to be exposed to real-life work scenarios. It also reduces the cost of the school's laboratory equipment.

### 2.2.2Co parenting

The front-line staff working in the maternal and child health services have a whole range of massage techniques for breastfeeding mothers, as well as taking care of their daily activities and assisting them in breastfeeding. Some practitioners with special experience in maternal and infant care can Discernment the baby's needs (hungry, urinating, lonely) by the baby's cry. Therefore, we can choose to develop practical courses of maternal and child health service together with practitioners who have rich experience in some aspect of maternal and child health service.

The first is to apply our theoretical and practical courses to the maternal and child health services, and to continuously test and calibrate our courses in the market, and to continuously adjust, update and improve our courses in accordance with the new needs of users. Secondly, our "double-qualified" teachers can enter the maternal and infant institutions for enterprise employees' theoretical knowledge of maternal and infant health training, standardize and enhance the theoretical knowledge level of practitioners. Third, the enterprise has skilled hands-on skills of outstanding staff, we have been trained in teaching skills, we can be on the school students for the practical demonstration and training of maternal and infant care.

To standardize, standardize and unify the operation procedures of nursing and rehabilitation of Mothers and infants in enterprises, and finally compile all kinds of maternal and infant health service operations into a book.

2.2.3 guidance on standardized management of maternal and infant health service Center.

The Hospital Management System of three shifts, written records, shift change system, doctor rounds, patient visits, sense of hygiene and disinfection, etc., was tried to be applied to the Center, make the center more professional and more reasonable star Ward Management Model. The shift system can avoid the 24-hour work fatigue and lead to poor service quality, but also can let the night shift service workers have full good working condition to take care of the mother and baby at night.

The physician-directed model can strengthen the connection with the hospital, timely and accurately detect the postpartum complications (postpartum hemorrhage, postpartum depression, puerperal infection) and further improve the service of Professional and scientific.

2.2.4construction of Internet talent platform for maternal and child health services.

To establish a network platform for maternal and Child Health Service personnel in conjunction with local maternal and Child Health Service Enterprises, and to upload to the Internet trained and qualified maternal and Child Health Service personnel. The release of qualified personnel on the Internet, experience level and customer evaluation and other relevant information, to facilitate the selection of maternal and child health services according to their own needs.

practitioners can also find information of their own nearby households through the network for home maternal and child health services, convenient for practitioners and clients through the Internet to effectively link up, saving time for both sides.

### 2.2.5 co-operative employment

Relying on medical colleges and universities to provide technical support and guidance for high-end mother and baby clubs will be more competitive. There is a huge potential market for maternal and child

health services, and there is a huge demand for the innovative, practical and multi-disciplinary talent market that we cultivate, which will provide more broad and better employment channels and opportunities for nursing students.

### 2.3 co-operation in school and government

The government is an important guider and supporter of the integration of Industry and education.

### 2.3.1 establishment of the Federation of Industries and education

With the support and guidance of the state government and the State Civil Affairs Bureau, the Dali Bai Autonomous Prefecture Maternal and Child Health Service Industry and education alliance was established

to lead the related industries in the state to carry out the work of industry regulation and training. Under the guidance of the Department of Labor and employment to promote the "golden flower Yuesao" brand construction. Established in Dali University (Jinhua Yuesao) standardization institute, to guide the Mother and Child Health Service Professional Development, personnel training and grading work.

### 2.3.2development of service standards.

On the basis of adequate market and Industry Research, local trade associations and enterprises and institutions, led by the Institute of Standardization, Dali University (Jin Hua), Dali Bai Autonomous Prefecture maternal and child health services to develop the local service quality standards.

### 2.3.3standardize training content.

Our school should stand at the forefront of technical services, undertake the task of maternal and Infant Health Service Syllabus and curriculum development, formulate teaching standards, quality norms and skills training and identification to serve the development of the industry. According to the knowledge and skills requirements of different levels and levels of maternal and Child Health Service personnel, drawing on the TAFE model of the vocational education, tailor-made training programs, graded development of training packages and teaching resources, publication of the Dali Bai Autonomous Prefecture maternal and Child Health Services Training Kit <sup>9</sup>.

### **CONCLUSION**

The integration of Industry and education is not only a matter for colleges and enterprises, but also a matter for government departments, industries and social organizations, training institutions, etc.

Therefore, in the new era of innovation-driven development and Internet education, only actively explore the "four-integration" of team, curriculum, practical training and technology, the way of deep integration of industry and education with reality, and the establishment of government guidance, Industry Guidance, schoolenterprise cooperation, hospital-institute cooperation.

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# RESEARCH ON THE INFLUENCE OF VIRTUAL REALITY TECHNOLOGY ON TOURISTS' BEHAVIOR INTENTION

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### **ABSTRACT**

As a new technology for the development of intelligent tourism, virtual reality has created favorable conditions for the development of tourism technology products and the stimulation of tourists' tourism intention. In this paper, technology will be included in the technology acceptance model, and tourists' technology will and acceptance model are constructed to study the impact of tourists' use of virtual reality on tourism intention. Taking the sample data of tourists from Shaolin Temple in Henan Province and Tianchi Lake in Xinjiang Province as examples, the results show that perceived usefulness and ease of use affect the attitude of tourists to use virtual reality, and the attitude of tourists to use virtual reality positively affects their willingness to use virtual reality, which in turn affects their tourism intention. Based on the research conclusion, the intelligent tourism scenic spot should pay attention to the characteristics of tourists and the functionality of new technology, provide customized services at different willingness levels, actively promote new technology to tourists, and stimulate tourists' willingness to use new technology and tourism intention.

Keywords: Intelligent Tourism; Virtual Reality; Technology Acceptance Model

### **INTRODUCTION**

With the spread of novel coronavirus pneumonia worldwide, global tourism has also been hit hard. How to find and seize opportunities in the new technological transformation and how to survive and develop under the influence of negative energy of the epidemic? Obviously, driven by the concept of 5G, the new model of "VR+Tourism" is undoubtedly the most cost-effective, efficient and promising way to alleviate the pain of tourism. VR(Virtual Reality) technology is gradually popularized in online shopping, games and other industries, and applied in the tourism industry to display the image of the destination for the O2O platform and sell tourism products for the O2O platform. Compared with the bad consumer experience such as Buyer show and Seller show that may be caused by visual presentation, VR's 3D panoramic presentation can greatly improve the user experience of pre-travel destination selection, stimulate people's willingness to travel, enable people to obtain more abundant destination information, make better tourism decision-making, and thus stimulate the trading volume of the tourism market.

In this paper, technology will be included in the TAM model, and tourists' technology will model is constructed to study the relationship between tourists' use of VR technology and the influencing factors of cultural tourism integration innovation behavior intention. Taking the sample data of Chinese tourists during the epidemic period as an example, perceived usefulness and ease of use affect tourists' attitude towards vr virtual reality technology, and tourists' attitude towards VR technology has a positive impact on their

willingness to use VR technology, thus affecting tourists' tourism intention. Tourism enterprises pay attention to the characteristics of tourists and the functionality of new technology, provide customized services at different willingness levels, actively promote new technology to tourists, and stimulate tourists' willingness to use new technology and tourism intention.

This paper is to break through the previous research ideas focusing on the impact of technology functionality on the behavior of individual use of technology. The research perspective focuses on the role of individual personality. By incorporating the variables of "technology will" that reflect the characteristics of tourists into the technology acceptance model, a theoretical model of tourists' technology will and acceptance is constructed. The technology acceptance model is modified based on the tourism situation, which makes up for the lack of explanatory power of the technology acceptance model in the tourism service environment, so as to provide a knowledge base for the research of the impact of new technology on tourism development. Specifically, the paper is to define the antecedent variables that affect tourists' use of augmented reality as two levels: Technology willingness and technology perception. Based on the revised theoretical model of tourists' technology willingness and acceptance, this paper discusses the relationship between technology willingness and technology perception on tourists' use of augmented reality attitude, willingness and tourists' tourism intention, and takes the tourism of 5A scenic spot in China as the research framework Customer samples are taken as an example to verify the research hypothesis and conceptual model. Finally, according to the research conclusion, relevant management suggestions are put forward.

### LITERATURE REVIEW

VR technology can stimulate tourists' tourism intention, and maximize tourists' satisfaction is based on the following assumption: tourists are willing to actively accept and use VR. VR technology has great attraction to tourists, but not all tourists are willing to use virtual reality, even some tourists are "technophobia patients". Only when tourists use virtual reality technology or enjoy virtual reality based on their own will, will they have a positive attitude and willingness to use virtual reality, and then stimulate tourism intention and experience tendency. At present, the research on virtual reality in tourism focuses more on the importance, technical characteristics and development strategy of virtual reality. However, the empirical research on the factors that affect tourists' use of virtual reality and how virtual reality affects tourists' travel intention is slightly insufficient.

In the past decades, Technology Acceptance Model (TAM) has been widely used in academia to explain the influencing factors of individual acceptance and use of new technology. However, recent studies have pointed out that technology acceptance model should increase the explanatory power of individual attitude and willingness to use technology by adding other variables. Personality is the core of individual attitude and behavior intention, which has a significant impact on technology acceptance and use behavior. Unfortunately, the research on the influence of personality on the use of technology is still limited, while the role of personality on the use of new technology is extremely important.

Davis (1989) is the first time to propose the TAM model, which can explain the low utilization rate of some information systems to some extent. According to TAM, perceived usefulness refers to the degree to which users can improve their work efficiency with the help of new technologies; perceived ease of use refers to the degree to which users think new technologies are simple or difficult. Perceived ease of use affects perceived usefulness, and

both affect user's use attitude. Use attitude and perceived usefulness affect user's use intention, and use intention ultimately affects use behavior. Perceived ease of use indirectly affects the use attitude through perceived usefulness. The technology acceptance model develops continuously after being put forward, and extends a series of extended models.

Verhoef et al. (2009) think that in the study of individual technology acceptance behavior, the variable of technology willingness should be included in the technology acceptance model to test how personality traits affect individual use of new technology. In the technology acceptance model, the individual's willingness to use new technology is mainly reflected in the positive and negative feelings of technology use attitude, which has a significant impact on technology use attitude. Therefore, it will undoubtedly improve the explanatory power of the technology acceptance model in the tourism consumption environment, and help to fully reveal the tourists' attitude towards the use of new technology and the impact mechanism on tourism intention. In the subsequent research, scholars pointed out that the three important factors influencing user behavior in Tam are willingness to use, perceived usefulness and perceived ease of use, while the variable of use attitude has little effect. Later studies also found that perceived interest significantly affected the willingness to use, such as Legris, which expanded the TAM model, and found that when users use new information systems or new technologies, they will also consider their entertainment, pleasure, etc., and summarized this as interesting. In addition.

In this paper, perceived usefulness refers to the user's perception of the use of virtual reality technology to improve tourism efficiency. Perceived ease of use refers to the user's awareness of the effort required to use virtual reality technology. Perceived interest refers to the user's ability to add fun to their journey when using virtual reality technology. Willingness to use refers to the user's awareness of the use of virtual reality technology The behavior intention expressed by the technology refers to the user's use of virtual reality technology in the process of tourism. Based on this, this paper assumes the following assumptions:

H1: Users' perceived usefulness has a positive impact on their willingness to use VR technology.

H2: Users' perceived ease of use has a positive impact on their willingness to use VR technology.

H3: Users' perceived risk has a positive impact on their willingness to use VR technology.

H4: Users' perceived ease of use has a positive impact on perceived usefulnes.

H5: Users' willingness to use VR technology has a positive impact on using behavior.

Based on the above hypotheses, this paper attempts to explore the influence model of VR technology on tourists' intention research behavior in the context of intelligent tourism, as shown in Figure 1. Tourists' perceived usefulness and perceived ease of use for virtual reality technology have a positive impact on their use attitude, and there is a correlation between perceived ease of use and perceived usefulness. In addition, perceived risk has a negative impact on their use attitude, and tourists' gender plays a certain role in regulating the impact of attitude on behavior.

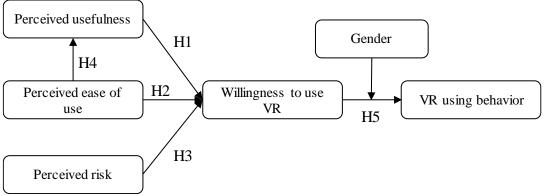


Fig.1 Research Model

### RESEARCH METHODOLOGY

This section discusses research methods undertaken in the course of the research. The methods undertaken can be found briefly described in the following sections. In this study, two intelligent scenic spots, Shaolin Temple in Henan Province and Tianchi in Xinjiang Province, were selected for field survey. Through VR technology, the two scenic spots have realized the "intelligent" service functions such as tourism guide, source investigation, intelligent monitoring, etc. The survey group adopted the convenient sampling method. The filter item whether the VR technology has been used is set in the questionnaire to eliminate the unused personnel, the invalid questionnaire and the personnel who have not used the virtual reality technology, and the final recycling quantity shall prevail.

The purpose of this study is to analyze the influencing factors of tourists' willingness to use virtual reality technology, and to compare the relationship among the factors. Therefore, we adopt and follow the steps and methods of questionnaire design in quantitative research. By summarizing the relevant literature at home and abroad, the initial questionnaire was designed. The questionnaire is divided into two parts: the first part is social population, statistical characteristics, and the second part is item measurement of each variable. The specific variables include perceived usefulness, perceived ease of use, perceived interest, task characteristics, technical characteristics, task technology matching degree, use intention and use behavior (see Table 1 for the source of items). In order to improve the validity of the questionnaire, a pre-test was carried out among 20 tourists. According to the feedback, the language and expression of some items were modified to form the final questionnaire. All the items were measured with five Likert scale, 1= Strongly disagree, 5= Strongly agree.

### **RESULTS AND FINDINGS**

This section discusses the results and findings of the research. The reliability and validity of the data are satisfactory Basic requirements, and then use Amos 23.0 software for structural equation modeling.

Table1 Reliability and convergent validity

Standard Compacite Average Variance Compacity									
Construct	Items	factor loading	Composite reliability	omposue variance va		Cronbach's α			
Perceived	PEOU1	0.712	0.890	0.619	11.620	0.888			
ease of use									
	PEOU2	0.809							
	PEOU3	0.87							
	PEOU4	0.74							
	PEOU5	0.794							
Task	TKC1	0.917	0.865	0.683	7.550	0.863			
characteristics									
	TKC2	0.761							
	TKC3	0.793							
Technology	TYC1	0.861	0.887	0.663	9.780	0.885			
characteristics	TVC2	0.966							
	TYC2	0.866							
	TYC3	0.755							
Damasiruad	TYC4	0.768	0.070	0.501	11 202	0.070			
Perceived usefulness	PU1	0.742	0.878	0.591	11.282	0.878			
	PU2	0.762							
	PU3	0.761							
	PU4	0.750							
	PU5	0.826							
Perceived interest	PI1	0.846	0.904	0.701	10.071	0.903			
interest	PI2	0.854							
	PI3	0.839							
Task-	TTF1	0.843	0.892	0.673	9.871	0.890			
technology fit	1111	0.013	0.072	0.075	7.071	0.070			
to omiorogy m	TTF2	0.799							
	TTF3	0.836							
	TTF4	0.802							
Behavior	BI1	0.822	0.886	0.722	7.701	0.886			
intention									
	BI2	0.836							
	BI3	0.888							
Actual	AB1	0.792	0.891	0.732	7.619	0.889			
behavior									
	AB2	0.917							
	AB3	0.854							
Overall kmo value of the scale			0.910		ive variance oution rate	75.440			

### CONCLUSION AND DISCUSSION

The smart tourism system of the scenic spot is to realize efficient tourism for tourists at present, According to the research results of internal and external influencing factors, the following suggestions are drawn: (1) users pay more attention to the practicability, convenience and ease of use of the smart tourism system. (2) When creating smart scenic spots, we should try our best to meet the personalized tourism experience needs of tourists, provide a new and comprehensive service experience according to the needs of tourists, and make the most effective use of the tour time.

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# HEDONIC SHOPPERS WITH SENSES OF LONELINESS IMPROVED THEIREMOTION IN CHINA'S RETAIL SECTOR

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### **ABSTRACT**

With the improvement of living standards and the acceleration of the pace of life, the decreasing number of direct contact between people led to a serious sense of alienation and an increasing number of people feel "lonely". But belonging is a basic human need, so people will use shopping to contact with others, to release pressure, relieve loneliness, forget the difficulties encountered in real life, and meet personal emotional needs through the process of interaction with people in the mall.Based on the mood management theory, after reading and sorting out relevant literature, the research variables and the research framework of this paper were finally determined. People with a sense of loneliness will go shopping in shopping malls out of the motivation of enjoyment, and they want to get in touch with others to alleviate their sense of loneliness. In the interpersonal interaction in the shopping mall, the interaction between customers, compared with the interaction between employees and customers, can alleviate the loneliness of customers and improve their mood. Finally, according to the research results to put forward the research conclusions and recommendations.

**Keywords**: Hedonic Motivation, Customer Interaction, Employee-Customer Interactions(ECI), Customer-Customer Interactions(CCI), Loneliness, Emotion.

### INTRODUCTION

Loneliness affects about one in three people in industrialized countries, one in twelve people, and the rate is rising (Cacioppo & Cacioppo, 2018). Loneliness is becoming more common (Wenger & Burholt, 2004). In January 2018, a Chinese data platform released the 2017 white paper on career data, "lonely economy," which surveyed more than 10,000 Chinese staffs and found that 61.47 % of them felt lonely at ordinary times.57.69 % of these said they would spend money to cope with loneliness. Loneliness can harm the quality of life, health and survival (Dahlberg, Agahi & Lennartsson, 2018).

From the perspective of hedonic shopping motivation, this study explores how the process of influencing emotions from motivation has different implications. As the central element of understanding service experience and experience, the role of customer emotion has attracted extensive attention (Richins,1997; Oliver, Rust & Varki,1997; Mattila & Enz,2002). Because of the existence of negative emotions, people want to regulate their emotions by shopping. This self-regulating behaviour is motivated and occurs before the strategy is produced (Riediger, Schmiedek, Wagner & Lindenberger, 2009). Hirschman and Holbrook (1982) believed that hedonic shopping motivation was more decisive than the practical shopping motivation in the purchasing process. In a retail enterprise, contact with employees before, during, and after the purchase is the primary contact point for customers. In close contact with customers, employees can significantly influence customer experience

and enhance customer satisfaction (Dolen, Ruyter & Lemmink,2004). Magids,Zorfas and Leemon(2015) when enterprises can connect with customers' emotions, the rewards are huge. Enterprises should regard this "emotional connection" as a science to pursue. Therefore, starting from the hedonic shopping motivation, this study studies the influence of interpersonal interaction in shopping malls on consumers' emotions.

### LITERATURE REVIEW

### 2.1 Mood Management Theory

Most studies on loneliness prefer to use Attachment theory to explain loneliness and its behaviours (Smith, Rippé & Dubinsky, 2018). Attachment theory was proposed by Bowlby (1969), which believes that individuals with early childhood relationship deficiency will always seek suitable places and people to solve their emotional and social emptiness. As long as the provider is trustworthy, we can get guidance and help.

However, Gierveld and Tilburg(2006) suggested that a deeper understanding of loneliness can be achieved by combining individual characteristics and contextual characteristics. Rubin, Perse & Powell (1985) feel Loneliness is an internal psychological state. Perman (2004) believes that Loneliness is the unpleasant feelings produced when a person feels that his current social relationship is inconsistent with his ideal state. In short, loneliness is a subjective experience, a negative emotional state that results from unsatisfactory relationships. Mood Management Theory can provide good logical support for this research problem. Emotion-focused equipment includes all the regulative efforts to diminish emotional consequences of stressful events(Peplau Perlman, 1982). Reinecke (2017) this theory based on an underlying assumption that individuals, to meet hedonistic goals, There is a motivation to terminate or reduce the negative emotional state, so that under the influence of such negative emotional state, they will make a choice by chance, rearrange the surrounding stimulus environment, and achieve the purpose of optimizing emotions by maximizing positive emotions and minimizing negative emotions. Similar stimuli are more likely to be chosen when similar situations occur in the future. Its application in this study, namely consumers with loneliness, type in hedonic shopping motivation driven to stop or reduce "loneliness" in the negative emotional state, entity in retail stores, with stores in the mall staff interactions and other consumer behaviour, to achieve the goal of emotional optimization.

### 2.2 Hedonic Shopping Motivation

All human behaviours are guided and dominated by motivation, which is the driving force to trigger and maintain individual behaviours and can stimulate and drive the occurrence of a specific behaviour. However, shopping motivation is generated based on consumer needs and becomes the direct cause and motive for consumers to purchase. Most scholars of proactive behaviour have focused on what strategies people use to influence their emotions, but less attention has been paid to how emotional and cognitive needs lead to these strategies. This self-regulation behaviour is motivated by motivation, and emotional self-regulation is usually aimed at enhancing positive emotions and suppressing negative ones (Riediger *et al.*,2009). Stone (1954) first found that the purchase of products is not the only purpose of consumers. Mehta, Sharma and Swami(2013) divide the shopping motivation into hedonic shopping motivation and practical shopping motivation. The actual shopping motivation is related to shopping itself, and shopping is regarded as a task that has to be completed. Hedonistic shopping, on the other hand, considers shopping as an act of providing entertainment to acquire multi-sensory, fantasy and emotional pleasures related to

the shopping experience. It focuses on the emotional and irrational aspects of buying behaviour (Hirschman & Holbrook, 1982). Kim (2006) defines hedonic shopping motivation as the internal driving force for consumers to obtain positive emotional experience from shopping activities.

As a driving force of consumption, current studies have found that the influencing factors of hedonic shopping motivation mainly come from macro-environmental factors such as culture and economic level (Tsang, Lee & Liu, 2014), and the difference of consumers' shopping motivation can reflect their personal characteristics (Buttner, Florack, & Goritz, 2013). Hedonic shopping motivation will affect consumers' choice of purchase channels (Kwon & Jain, 2009), lead to impulsive purchases, and lead to exploratory information search, which will affect the search time before purchase, and ultimately affect the purchase frequency (Kim & Eastin, 2011).

### 2.3 Interactions

Based on the theory of social identity, Bustamante and Rubio(2017) believe that in a retail environment, customers establish a relationship with the store through their interaction with their members, and the social components can be divided into two categories: customer-employee and customer-customer. Shopping malls provide a place for human interaction. In the process of shopping, the main people who can interact with the shoppers at the personnel level are the mall employees and other shoppers who are shopping together in the mall. Therefore, this study adopts this classification method to measure interpersonal interaction in the mall environment.

### **2.3.1** Employee-Customer Interactions(ECI)

Shostack (1985) earlier proposed the concept of "service interaction" to express the broad meaning of "indirect interaction between customers and service enterprises", including the interaction between customers and employees, equipment and other tangible objects. Later, Solomon, Surprenant, Czepiel and Gutman (1985) proposed the concept of "service encounter" and defined it as "the dynamic interaction process between customers and service providers", emphasizing the interaction between people. Czepiel(1990) represents a "customer-salesperson relationship" as "when there is an ongoing series of interactions between a salesperson and a customer and the parties know each other." Employee-customer interaction is a dynamic interaction process throughout the customer's consumption process. It is a neutral word without any positive or negative emotions. The interaction between employees and customers may be positive or negative.

### **2.3.2** Customer-Customer Interactions(CCI)

Customer-Customer Interaction is a complex concept, mainly refers to the information in the process of consumption by a consumer or a group of consumers to transfer to another or another group of consumers, consumers in the process consists of interactive information affect consumer preferences and purchase intention (Libai, Bolton & Bugel, 2010). In the narrow sense, customer interaction refers to the information exchange between customers "in a business environment". Bloch, Ridgway and Dawson(1994) found in their research on shopping malls that shopping malls were meeting places, and more than 20% of the respondents talked with people they met in the malls that day. Moore,Moore and Capella(2005) although the company may think that the behaviour of other customers is uncontrollable, consumers believe that the company should manage the behaviour of customers.

### 2.4 Loneliness

According to Weiss (1973), loneliness is a widespread and excruciating condition. Russel, Peplau and Cutrona (1980) believe that loneliness is a response to "the difference between what one wants to achieve and the actual social relationship". Perlman and Peplau (1981) loneliness is an unpleasant emotional experience, which is different from isolation and mainly results from unsatisfactory interpersonal relationships. Perlman and Peplau (1984) loneliness have nothing to do with the number of people in the group. People who are alone are not necessarily lonely, and people in the crowd are not necessarily not lonely. Fokkwma and Knipscheer(2007) believe that the key to loneliness is not how many relationships a person has at present, nor the lack of relationships, but the lack of quality of such links and the lack of meaningful or satisfying relationships will lead to loneliness. Weiss (1973) divided loneliness into emotional and social loneliness and believed that loneliness is not a one-dimensional dimension. However, relevant kinds of literature indicate that loneliness is usually defined and measured as a one-dimensional structure.

There are two different opinions on the motivation of loneliness. On the one hand, some scholars believe that loneliness is a "driving force". Rubin, Perse and Powell(1985) believe that individuals with a sense of loneliness have the motivation to seek social interaction, but their psychological state may make them less successful in building satisfying interpersonal relationships. Gross, Juvonen and Gable(2000) found that in school, adolescents who were lonely or socially anxious communicated more with people they did not know online. Cacioppo and Hawkley(2009) believe that loneliness is like a signal, indicating the lack of social contact, which can motivate individuals to regain social contact. On the other hand, some scholars believe that individuals who feel lonely have less motivation to change the status quo(Rokach & Brock, 1998). Rubenstein and Shaver(1982) proposed a cyclical model, that is, a person who uses avoidance to deal with loneliness will lead to an increase in loneliness, which will lead to further avoidance.

### 2.5 Emotions

Gardner (1985) pointed out that emotion, mood and affection refer to the feeling state of a person. Russelln and Barrett (1999) defined consumer emotions as a series of emotional responses, which are triggered in the use or consumption experience of a product. Westbrook and Oliver (1991) defined customers' consumption emotions as the emotional reaction of customers in the process of consuming products and enjoying services. They emphasized that customers' consumption experience is the main incentive for customers to generate emotions. Mano and Oliver (1993) believed that consumer sentiment is a psychological reaction produced by consumers through contact with services and products in the process of shopping. Mehrabian (1980) carried out further research based on Russell's two-factor model and added "Dominance" emotion to obtain the "Pleasure-Arousal-Dominance" (PAD) model, which more clearly described the customer's adaptability to the environment and response to emotional reactions, which would eventually have an impact on the customer's behaviour and willingness. Soriano and Foxall (2006) also agree with the rationality of the "PAD" model. They believe that Dominance emotion is one of the critical emotional dimension, especially for daily shopping behaviours. Dominance emotions has a strong influence, and Dominance emotions can make customers feel comfortable and relaxed, which is a significant factor affecting customers' purchase intention.

### 2.6 Hypotheses

Motivation is the internal driving force that drives people to act. This driving force is caused by the tension caused by the existence of unmet needs. People consciously or subconsciously reduce their tension and release the pressure they feel by fulfilling their needs (Schiffman and Kanuk, 2000). Kim and Eastin (2011) believe that hedonic consumers are more likely to make use of interactive channels and obtain happiness through social contact with other consumers. Consumers are happy to get product-related information from other consumers and share their experiences with other consumers for fun and enjoyment. People tend to feel lonely (Perlman & Peplau, 1982). Loneliness, in turn, drives people to try to reestablish or establish new connections (Cacioppo & Patrick, 2008). Most people who feel bad have a strong desire to feel better (Isen, 1984). Sarah and Arthur (2003) believe that people who feel bad have a strong motivation to make things better. People consciously or subconsciously reduce their tension and release the pressure they feel by fulfilling their needs (Schiffman and Kanuk, 2000). Isen (1984) refers to this tendency to return to a healthy state as "mood repair", and consumption can be a means to achieve this goal. Thus,I propose the following hypotheses:

H1:Hedonic Shopping Motivation has a significant and positive influence on Customer Interactions.

H1a:Hedonic Shopping Motivation has a significant and positive influence on Employee-Customer Interactions.

H1b:Hedonic Shopping Motivation has a significant and positive influence on Customer-Customer Interactions.

Bloch, Ridgway and Nelson (1991) observed that shopping malls are places where people gather to meet friends and enjoy the time, and they asserted that "shopping malls are friendly to lonely people by establishing social connections". Sarah and Arthur (2003) believed that consumers with a negative state of mind prefer to shop in a "feel-good" environment, which provides instant hedonism to enhance their negative mood. Baron et al.(2007) pointed out that one of the main results of customer interaction is to make customers feel happy. Previous studies have found that employee friendliness, knowledge, interaction and appropriate assistance have a significant impact on customers' emotional state (Baker & Lamb, 1994; Pine & Gilmore, 1998; Turley & Milliman, 2000). When people who feel bad or lose interest in others, they are also eager to get more help from others to take care of them and make decisions for them (Whybrow, 1999). In the retail environment, lonely individuals tend to rely on personal services to get personal attention (Moschis, 2003). Lonely individuals may go shopping, interact with people who have similar hobbies (Tauber, 1972), and interact with salespeople, service agents, and other shoppers (Kang & Ridgway, 1996). Martin and Pranter (1989) believed that the interaction among customers was vital because it could help them get rid of loneliness and get a sense of belonging, and help them form a friendship. Thus,I propose the following hypotheses:

H2:Customer Interactions has a significant and negative influence on Loneliness.

H2a:Employee-Customer Interactions has a significant and negative influence on Loneliness.

H2b:Customer-Customer Interactions has a significant and negative influence on Loneliness.

Loneliness has severe negative consequences for both physical and mental health (Hawkley & Cacioppo, 2010). It observed to be related to adverse effects on well-being (De Jong Gierveld 1998). Emotions are essential social cues because they convey information to express the inner state of their people, possibly reflecting that person's will to include or reject others (Ekman, 1993). Diener and Seligman (2002) hold that the factors that are related to high happiness and showed that having good social relations is necessary for happiness.

People who feel bad tend to think that their daily life is complicated and unpleasant. People who are in a negative emotional state tend to be less active. People in a negative mood state tend to be less active and suffer from paralysis of will (Maxwell & Kover, 2003). Overall, people who feel lonely are more likely to have negative emotions. Thus,I propose the following hypotheses:

H3:Loneliness has a significant and negative influence on Customer Emotions

H3a:Loneliness has a significant and negative influence on Pleasure

H3b:Loneliness has a significant and negative influence on Arousal

H3c:Loneliness has a significant and negative influence on Dominance

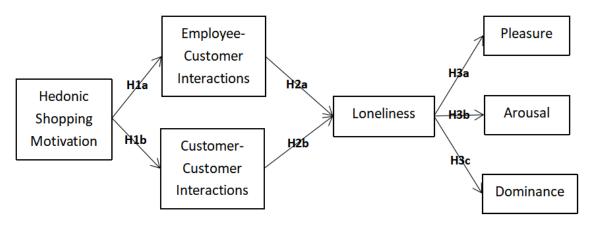


Fig 1. Proposed model

### RESEARCH METHODOLOGY

This section discusses research methods undertaken in the course of the research. The methods undertaken can be found briefly described in the following sections.

### 3.1 Sample and data collection

In this study, two Wanda shopping plazas in Zhengzhou, the Henan province capital, were selected as the issuing places of the questionnaire through paper questionnaires. Taking consumers in shopping malls as the research object, the researchers first distributed 50 small sample questionnaires in these two shopping malls before sending out the formal questionnaire. As a pre-test, exploratory factor analysis was carried out on each item of the questionnaire variables. The items meeting the requirements were retained, and the items with low scores were deleted.

Finally, it was summarized into a formal questionnaire, and the overall reliability of the revised questionnaire reached 0.876. Since then, 300 formal questionnaires have been distributed, and 150 questionnaires have been distributed in the two shopping malls. The official questionnaires have been distributed and collected in the four days of Friday, Saturday, Sunday, and Monday. In this study, a total of 300 questionnaires were issued, and 291 questionnaires were recovered, with a recovery rate of 97%. After deducting 14 invalid questionnaires, 277 valid questionnaires were obtained. The sample structure was 165 females (59.6%). Most of the samples were from 18 to 30 years old, accounting for 45.5% of 126 samples. The number of married respondents was 159, or 57.4 percent. The majority of the education samples were distributed among undergraduates, with 127 (45.8%). In terms of positions, the sample distribution was relatively average, with the most significant sample working in public institutions (97, accounting for 35%). The primary monthly disposable

income of consumers in shopping malls is mainly concentrated in the range of 1000-5000 yuan. The sample amounts in the range of 1000-3000 yuan and 3,001-5000 yuan account for 33.9% and 32.1% respectively. As for the number of shopping companions, the number of the two is the largest, accounting for 70%, which is the main research object of this study. The shopping time is 30 to 60 minutes of than most, and the second is 1 to 2 hours, the two distributions were similar, a total of 64.6% of the valid samples, the rest of 2-3 hours, 30 minutes, 3-4 hours, five hours and 4-5 hours.

### 3.2 Measures

This study adopted questionnaires from previous studies and validated it with a pilot test. I use the hedonic shopping motivation scale developed by Hausman (2000) with 13 items and a Likert 5-point scale. The overall reliability reached 0.875%. After factor analysis (after the maximum variation method was used to rotate the axis), the cumulative total variation reached 66.873% after deleting the items that did not reach the 0.5 level. The two items deleted are "I go shopping to watch other people"; I go shopping to be entertained." Employee-Customer Interaction scale adopted from Bustamante and Rubio (2017). Customer-Customer Interactions adapted from Moore, Moore, and Capella (2005). Russell, Peplau, and Ferguson (1978) compiled by the UCLA Scale (UCLA Loneliness Scale, the University of California at Los Angels). This scale is a self-rating scale with a total of 20 items. It adopts a four-level scoring system, mainly used to investigate the loneliness caused by the difference between expectation and reality in social interaction. Since the scale measures trait loneliness and its reliability coefficient reaches 0.94, which is superior to other scales in the evaluation of loneliness, this scale is selected to measure the loneliness variable in this study. Pleasure, Arousal, and Dominance adapted from Koo and Lee (2011).

### **RESULTS AND FINDINGS**

This section discusses the results and findings of the research.

### 4.1 Measurement Model Assessment

In this study, the reliability test was based on Cronbach'a, which was proposed by Nunnally (1978) Criterion for judging the limit of reliability coefficient. The reliability analysis results of this study are shown in table 1. The overall reliability of the useful samples of the questionnaire is 0.892, higher than 0.8, and the reliability of all dimensions is more significant than 0.7, indicating that the questionnaire items in this study have excellent reliability. In this study, Amos20.0 analysis software was used, and structural equation (SEM) was used for confirmatory factor analysis to obtain relevant indicators for discrimination. The standardized factor load of all items was greater than 0.5; The CR value of each variable was greater than 0.7. AVE values were all greater than 0.5. Therefore, it is concluded that the questionnaire items in this study have good validity. In the correlation analysis, there was no correlation between ECI and LON, indicating that interaction with employees in the mall could not alleviate lonely consumers.; LON is not associated with A, suggesting that consumers who experience loneliness have no negative impact on arousal. The reason is the same as in previous studies. Lodder et al. (2016) suggested that lonely people may still interpret emotions that are expressed more negatively (i.e., they may express their emotions more negatively). "Or draw more negative conclusions about inclusion or exclusion based on the emotions expressed.

**Table 1** Correlation matrix for measurement scales

M	SD	A	CR	AVE	HSM	ECI	CCI	LON	P	A	D
3.287	.758	.875	.876	.586	1						
3.123	.629	.793	.796	.522	.352 **	1					
3.002	.814	.835	.837	.564	.388	.609 **	1				
2.258	.701	.881	.882	.520	212 **	.070	151 *	1			
3.553	.814	.925	.926	.756	.616 **	.442 **	.411 **	136 *	1		
3.220	.752	.853	.866	.630	.565 **	.290 **	.359 **	055	.699 **	1	
3.672	.710	.844	.845	.579	.457 **	.355	.344	141 *	.587 **	.478 **	1

According to the parameter estimation and analysis results of Amos' structural equation model, the hypothesis test results in table 2 were sorted out. All the hypotheses proposed in this study were supported except H3. Among them, the non-significant hypothesis is that the employee-customer interaction has a significant positive effect on customers' emotional arousal. The results showed that employee-customer interaction had no significant effect on the emotional arousal of customers. Investigate its reason, perhaps because, in most people, the provider of the interaction between the service or with customers, all is the duty of service should be performed. The server for the interaction are also goods to customers as the guidance; most consumers in the process of consumption will be more or less with the interaction between the service provider. Consumers won't because the server routine consumer services provided and feel the emotions evoked.

**Table 2** Results of proposed model

Hypothesis	Sig n	Estimate	P	Suppor t
H1:Hedonic Shopping Motivation →Employee- Customer Interactions	+	.473	.000	Yes
H2:Hedonic Shopping Motivation →Customer- Customer Interactions	+	.482	.000	Yes
H3:Employee-Customer Interactions→Loneliness	-	012	.899	No
H4:Customer-Customer Interactions→Loneliness	-	208	.021	Yes
H5:Loneliness→Customer Emotions	-	171	.011	Yes

### **CONCLUSION AND DISCUSSION**

Lonely consumers with hedonic shopping motivations are more likely to interact with other customers. Consumers who buy the same product have the same preferences and interests. Interactions with these customers can better obtain product information or emotional resonance from the perspective of consumers. No matter in which era, the creation of wealth is inseparable from the participation of people. Especially for today's service industry, it can no longer be competitive to meet the supply of goods. Nowadays, more and

more consumers have a "sense of loneliness," and they are more and more willing to pay for the relief of "sense of loneliness." Therefore, in the management and marketing of retail enterprises, we should pay attention to the cultivation and guidance of customers' positive emotions. Retail enterprises should continuously improve their contact points with customers. Retailers should mainly strengthen the construction of psychological (intangible) attributes of store image, stimulate customers' emotions through interactive on-site services, and consider customers' emotional changes. For the interaction between customers, retail enterprises can control it and authorize customers. Select a portion of non-critical authority to be granted to knowledgeable customers, loyal customers, or opinion leaders, etc. Appropriate training or authoring to the customer, make it can fully realize their more value. Take on the role of "part-time employees," which can be more actively involved in the business transaction, the benign interaction with the other customers in the store, improve customer service experience, and have a positive mood.

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# TECHNOLOGY FACTORS AFFECTING TOURISM DESTINATION LOYALTY; A CASE STUDY OF DAMNOEN SADUAK FLOATING MARKET, RATCHABURI, THAILAND

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### **ABSTRACT**

This paper studies technology factors that affecting the tourism destination loyalty in Damnoen Saduak Floating Market, Ratchaburi, Thailand. The objectives of this paper were (a) to evaluate the technologies that affecting the tourism destination loyalty in three categories: services, transportation, tourist information and (b) to study technologies that affecting the tourists in selecting Damnoen Saduak Floating Market as their next travel destination. Finally, (c) to investigate if there are difference in overall of technology friendly in terms of age, gender and level of education. The respondents were 400 tourists who visiting Damnoen Saduak Floating Market in Ratchaburi Province, Thailand. The data was collected by using a questionnaire (Questionnaire) as a tool in this study. The questionnaires were analyzed by using the [14] Taro Yamane (Taro Yamane) formula and the statistic instruments that the researcher used to analyze the hypothesis is Chi-Square Test, Independent Sample T-Test and the ANOVA (Analysis of variance) which were analyzed by using the software program to process the data. The research results indicated that most of the sampling was male age between 24-33 years old, with a single status, and a monthly income between 35,001 – 40,000 Baht at 39 percent. Their education level is Graduated degree which is accounted for 27.25 percent. Most of the sampling were an employee of the private company, and their purpose of travelling is for relaxing on their holiday. They perceived their news from the internet and decided to visit floating market as highest score and as high as 94 percent of them would revisit floating market as their travel destination in Thailand. Finally, analysis of variance (ANOVA) showed that in terms of tourists' age, gender and educational level did not lead to significance in overall technology friendly and to destination loyalty.

**Keywords:** Technology, Tourism Destination Loyalty, Damnoen Saduak Floating Market

### INTRODUCTION

An excessive number of tourists has visit Thailand for many years. However, in developing tourism destination loyalty, an increasing of a revisiting number of tourists should be taken into account. There are many factors that tourists will consider in revisiting Thailand for their travel next time. Their experience of the products, services, conveniences during their stay as well as their experience with the quality of tourism management has to be considered in developing tourism destination loyalty accordingly. [1] According to the Ministry of Tourism and Sports of Thailand (2019), the overall tourists from East Asia to Thailand is as much as 25 million visitors from the total international tourists visited of 38 million people in the year 2018. The highest number of tourists from East Asia came from

China, followed by Korean visitors and Japanese visitors respectively. The following group of tourists came from Europe which was accounted for 6.7 million visitors, then The Americas which was accounted for 1.6 million visitors, followed by South Asia at 1.98 million visitors, Oceania at 0.9 million visitors, Middle East at 0.73 million visitors and Africa at 0.23 million visitors respectively. As tourism industry play an important part in economics of the country, therefore, each country has to strengthening their competitiveness in order to increase the tourists and stimulate economics in their country from tourism industry. As well as Thailand, it has formulated the National Strategies and integrating tourism as part of economic development, called Thailand 4.0 which is government's economic development model based on a vision of "Stability Prosperity and Sustainability". Whereas, [2] Ayuwattanachai (2017) mentioned that Thailand's National policy is transforming the economy from "commodity base economy" into a "value-based economy" or "innovation-driven economy.

Today, it is broadly known that tourism industry plays an important role in economic development of many countries. From the study of [3] Tagenggsak Chaichan, (2013), said that if any country has a clear strategic development plan based on a strong economy, good infrastructure, abundant of natural resources and a potential tourism personnel, then there will be an important factor that will help drive the country to develop tourism growth. Referring to, [4] The Tourism Authority of Thailand (TAT) (2018), secondary destinations is part of TAT's strategic plans introduced. The Tourism Authority of Thailand (TAT), has outlined action plans to encourage travelers to continue to visit secondary provinces. More attractions and tourist activities in secondary provinces will be promoted in overseas markets to lure tourists to less crowded cities. These 55 provinces, are defined as following; Northern region, 16 provinces which are; Chiang Rai, Phitsanulok, Tak, Phetchabun, Nakhon Sawan, Sukhothai, Lamphun, Uttaradit, Lampang, Mae Hong Son, Phichit, Phrae, Nan, Kamphaeng Phet, Uthai Thani and Phayao. Northeast region 18 provinces, which are; Udon Thani, Ubon Ratchathani, Nong Khai, Loei, Mukdahan, Buriram, Chaiyaphum, Sisaket, Surin, Sakon Nakhon, Nakhon Phanom, Roi Et, Maha Sarakham, Bueng Kan, Kalasin, Yasothon, Nong Bua Lam Phu and Amnat Charoen. Central, eastern, western region 12 provinces, which are; Lop Buri, Suphan Buri, Nakhon Navok, Sa Kaeo, Trat, Chanthaburi, Ratchaburi, Samut Songkhram, Prachin Buri, Chai Nat, Ang Thong and Sing Buri. Southern 9 provinces, which are; Nakhon Si Thammarat, Phatthalung, Trang, Satun, Chumphon, Ranong, Narathiwat, Yala and Pattani. Moreover, Tourism Authority or Thailand (TAT) has curated three concepts for promoting the group of 55 secondary destinations in an environmentally-friendly way. The three tourism promotion concepts for the secondary destinations which identified by [4] The Tourism Authority of Thailand are:

**Local Experience:** Provide visitors with an in-depth experience; such as, community-based tourism, lifestyle, wisdom, local identity and distinction of each area.

**Future Challenge:** Secondary cities have enormous potential to expand their economies and boost the income of the local people if the tourism industry is developed in a sustainable and well-planned manner.

**Connecting Destinations:** Connecting Thailand's big cities with smaller cities and also connecting them with neighboring countries. There are 29 destinations adjacent to the primary cities, 22 airports in these destinations, and 10 destinations with immigration checkpoints.

The promotion is in line with the government's policy to promote and strengthen the tourism sector with inspiring attractions, strengthen the foundations of tourism, and make it a major source of progress in the secondary destinations nationwide.

Ratchaburi province, is one of the 55 secondary cities that has many tourist attractions. One of the most famous is Damnoen Saduak Floating market. [5] As the floating market is one of the most popular travel destinations in Thailand. It has become primarily a tourist attraction which offering a unique and infectiously chaotic market with a historical attraction. In the past, daily commerce in Thailand was conducted mostly along rivers and canals (or khlongs in Thai). Bangkok's water network was busy and served as the principal means of communication causing Bangkok to be called as the "Venice of the East" by early European visitors. The data from [5] The Tourism Authority of Thailand, Damnoen Saduak Floating Market in Ratchaburi is one of the most popular floating markets in Thailand. Every day many Thai and foreign tourists travel here to shop, eat, and absorb the atmosphere of Thailand water markets that have been like this for 100 years. Klong Damnoen Saduak Damnoen Saduak is the straightest and longest canal in Thailand. The canal was built on royal initiative as King Rama IV of Thailand wanted to link the Mae Klong River with Chinese river ways to support transportation and trade. It took over 2 years to dig, and was eventually finished under the reign of his successor King Rama V. The canal is 32 kilometers long and has more than 200 branches. Damnoen Saduak Floating Market's popularity grew to new heights in 1971-1973 when the river was full of farmers on their boats selling their wares. And that is the way trade is performed in this area until todays. The Damnoen Saduak Floating Market is 110 km (68 mi) west of Bangkok, in Ratchaburi province and about 40 minutes by car to Nakhon Pathom. Unlike most of the other floating markets, the popularity of Damnoen Saduak attracts many fruit sellers rowing their boats along the narrow canals, meaning that you're guaranteed great pictures. There is plenty of tasty food to try along the docks, from freshly-made mini coconut pancakes to boat noodles in their rich meaty broth. The highlight selling point are wonderful colorful and vibrant market as well as a different way of shopping because the floating market was fun, safe and interesting. Tourists can enjoy the long tail boat and seeing the local people houses along the canal.

The Tourism Authority of Thailand [6] has created the Amazing Thailand Go Local Project and adjusted the proportion of visitors from major cities to secondary cities, from 70:30 to 65:35, which focuses on creating a local identity and organize activities to stimulate travel in secondary cities. Strengthening the community. Therefore, the country has to manage domestic tourism seriously.

This is why the researcher realized the importance of tourism industry and want to study about technology factors that affecting the tourism destination loyalty in Damnoen Saduak Floating Market, Ratchaburi, Thailand.

## **RESEARCH OBJECTIVES**

- 1. To evaluate the technologies that affecting the tourism destination loyalty in three categories: services, transportation, tourist information.
- 2. To study technologies that affecting the tourists in selecting Damnoen Saduak Floating Market as their next travel destination.
- 3. To investigate if there are difference in overall of technology friendly in terms of age, gender and level of education.

#### LITERATURE REVIEW

Todays, in managing floating market requires an understanding of the custodial role and the need to attract visitors, as a result of the change in external environments, especially the change of visitor's behavior and their budgeting. Therefore, there is a need for a local people to comprehend a marketing concept which contributes to destination loyalty through visitor's satisfaction.

There are many studies about the destination loyalty and one of the studies from [7] Backman & Crompton, (2009) stated that loyalty means committed behavior that is established by the tendency to take part in a particular leisure facility. The interpersonal tactics on marketing sets client loyalty as a strategic objective assumed that various organizations have come to recognize the monetary significance of a loyal customer database; [8] Vishal Rajan (2015) are cited to emphasize this significance. He also studied on the factors affecting tourist destination loyalty in Munnar, India and reviewed that the at Munnar, among the tourists visiting Eravikulam National Park shows that there exists loyalty among the tourists visiting Munnar and the Perception of tourists, Image of destination, attributes of destination and experience of tourists are factors that influences the satisfaction level of tourists at Munnar and the satisfaction of tourists has a high level of influence on tourists' loyalty towards the destination of Munnar.

When discussing in tourist loyalty, other researchers [9] Chen & Chen (2010) said that, the tourist loyalty is the behavior that will occur in the future after getting to travel and being impressed by showing in the form of a repeat visit moreover encourage more people to come and visit that destination. This is in relation with another research result from [10] Robinson & Etherington (2006), which stated that tourists who are satisfied with the quality of service of any tourist destinations, will be loyal to that tourist destination. From the studied of [11] Lee, Jeon & Kim, (2011), also stated that if tourists are not satisfied with the quality of the tourist attractions, they will be expressed by complaining and will result in not being loyal to that tourist destination any more.

In addition, [12] Sompong Amnuay-ngerntra (2015) said, making the travel experience fun, light, and entertaining is more important for many tourists. Therefore, visitor participation should be encouraged to increase visitor's understanding and experience. In addition, there is a need to develop an interpretative theme, a statement which connects different strands of information, and uses an idea or concept as a way of understanding a place. The interpretative theme will help visitors understand the connected facts of a heritage site. This makes the visit more interesting and more memorable.

The use of a marketing approach by understanding why people visit, the experience can be shaped to better satisfy their needs in a manner that is compatible with the destination loyalty management goal. This is in relation with [13] McKercher and Du Cros (2002), If the experience is not shaped to satisfy the visitors' needs, or if those needs are not known, then the tourists will shape the experience themselves to satisfy their own needs. Similarly, if the asset is positioned vaguely in the marketplace, or if the tourists are unaware of the position strategy used, a greater likelihood exists that the wrong type of tourists will visit. The wrong type of visitors can adversely threaten cultural heritage resources of the host communities. Alternatively, the failure to appreciate the tourism significance of an asset and the accompanying need to transform it for tourism consumption may result in the unappealing presentation of the site, resulting in lower visitation levels, lower satisfaction levels, less repeat visitation, and fewer financial returns.

#### RESEARCH METHODOLOGY

# A. The study site:

The research was conducted to determine the technology factors that affecting tourism destination loyalty in Damnoen Saduak Floating Market, Ratchaburi, Thailand. The research approach used is descriptive to describe the quantitative research method. Moreover, survey method is found to be the most common research tools.





Picture 1: Researcher and team

Picture2: Damnoen Saduak Floating Market

# B. The sampling population of this study:

The population of this study consists of 400 tourists who visited Damnoen Saduak Floating Market, Ratchaburi Province, Thailand. The sample were collected by using [14] Taro Yamane (1973) formula with a 0.05 level of significance. The content validity was obtained by getting three experts in the field of hospitality and tourism to examine each question. The validity of each question in the questionnaire was tested by using Item-Objective Congruency or ICO index.

# C. Research Methodology:

A survey research method was employed to study the technology that affects the tourism destination loyalty in three categories which are product, service and tourist information. An English questionnaire was given to 400 participants, who were travelled in Damnoen Saduak Floating Market during June-December, 2019.

## D. Data Collections:

In terms of data collections, initially, 30 respondents have been used as a pilot study in order to fine an Alpha Coefficient data and the method of how to improve or adjust each question in the questionnaire. The pilot study and questionnaire improvement resulted in the Alpha Coefficient value of 0.717 for the whole questionnaire and 0.832 for the satisfaction questions, later on, the researcher started to collect data from the total of 400 participants. Each respondent has been rechecked if they had completed all questions in the questionnaire to prevent any missing data, and miss interpreting.

## RESEARCH RESULTS AND DISSCUSSION

**Table 1:** Characteristics of Samples

Table 1. Characteristics of Samples	Frequency	Percent	N
Gender			
Female	161	40.25	400

	Frequency	Percent	N
Male	239	59.75	
Age			
14-23	23	5.75	400
24-33	142	35.50	
34-43	102	25.50	
44-53	81	20.25	
54++	52	13.00	
Education			
Primary School	16	4.00	400
High School	89	22.25	
Under Graduate Degree	102	25.50	
Graduate Degree	193	27.25	
Income			
Below 15,000 Baht	22	5.50	400
15,001 – 25,000 Baht	78	19.50	
25,001 – 35,000 Baht	88	22.00	
35,001 – 45,000 Baht	156	39.00	
45,001 ++ Baht	56	14.00	
<b>Destination Preference</b>			
Culture	38	9.50	400
Local Food	71	17.75	
Historical Site	28	7.00	
Natural Beauty	48	12.00	
Floating Market	118	29.50	
Souvenir and crafts	37	9.25	
Low cost of travelling	54	13.50	
Others	6	1.50	
Technology friendly during travel			
Service Technology	112	28.00	400

	Frequency	Percent	N
Transportation Technology	129	32.25	
<b>Tourism information Technology</b>	124	31.00	
Others	25	6.25	

Figure 1: Characteristics of Samples

Table 2. Level of Technologies friendly that affecting the Tourist's Destination Loyalty

Technologies	Means	S.D.	Level
Transportation Technology			
Public transportation	4.36	0.69391	Very Satisfied
Private transportation	4.18 4.29	0.74719 0.68471	Very Satisfied Very Satisfied
Boats in Floating Market			J
Services Technology	4.19 4.17	0.73317 0.76889	Very Satisfied Very Satisfied
Accommodation Service	4.11	0.79319	Very Satisfied
Cash Collections	4.16	0.77129	Very Satisfied
<b>Tourists Information Technology</b>			
Tourists sign			
Tourist help desks			
Overall	4.21	0.71871	Very Satisfied

Figure 2: Level of Technologies friendly that affecting the Tourist's Destination Loyalty

**Table 3.**Tourist's preference to revisit Damnoen Saduak Floating Market as their destination loyalty

Damnoen Saduak Floating Market;	Frequency	Percentage					
A Travel Destination Loyalty							
To themself							
Yes, will revisit this destination	371	92.75					
Not sure to revisit this destination	22	5.50					
Will not revisit this destination	7	1.75					
To others							

Will recommend to others to visit this destination	382	95.5
Not sure to recommend to others to visit this destination	13	3.25
Will not recommend to others to visit this destination	5	1.25

Figure 3: Tourist's preference to revisit Damnoen Saduak Floating Market as their destination loyalty

The first part of the questionnaire measures characteristics of tourists such as gender, age, education, and the main travelling preference regarding the technology friendly during their travelling in Damnoen Saduak Floating Market. The result from table 1 indicated that the preference of tourists is the special characteristic of the floating market followed by the local food and the culture respectively.

The tables also shown that most of the tourists were male at 59.75 percent and the tourists age is between 24-33 years which was at 35.50 percent which was resulting at the highest level, followed by age between 34-43 at 25.50 percent respectively. Next, is the educational level of tourists was indicated at Graduate level which the highest score was account for 27.25 percent. The average of the income indicated at 35,001 - 45,000 Baht at the highest level of 39 percent accordingly.

The second part of questionnaire measures level of satisfaction by using five Likert scale. Responses rage varies from 1. Very dissatisfied, 2. Dissatisfied, 3. Moderate, 4. Satisfied, 5. Very Satisfied. The last part of the questionnaire gathers the tourist's opinion on their destination loyalty. The validity of each question in the questionnaire was tested by using Item Objective Congruency or IOC index.

The result from table 2 indicated that the technology friendly for public transportation was shown at the very satisfied level. Followed by technology friendly of boats in the floating market which also indicated at the very satisfied level. Moreover, the Service technology on transportation technology and Cash collections technology has shown at the very satisfied level. Furthermore, the tourist's information technology on Tourists sign and Tourist help desks was indicated at the very satisfied level accordingly.

The result from table 3 indicated about the opinion to themselves and to others towards the tourism destination loyalty, the results shown that most of the tourists will revisit Damnoen Saduak Floating Market as their destination loyalty at 92.25 percent. Moreover, they will recommend others to visit Damnoen Saduak Floating Market as the choice of destination at 95.50 percent accordingly.

# RESEARCH SUMMERY AND FUTURE RESEACH RECOMMENDATIONS

As many research and papers has indicated that tourist's satisfaction is generally recognized as the most important factor to increase tourism destination loyalty. The logic goes on, [15] refer to Kozak and Rimmington (2010), said that satisfaction is the most important tool to the tourist destination marketing. High level of tourists' satisfaction links to a high tourists' level of loyalty as the tourists are more likely to revisit the destination.

From this research result, the Damnoen Saduak Floating market has special characteristic unlike other floating market, which offering a unique and infectiously chaotic market with a historical attraction. It opens daily from 08.30am and as there are many fruit

sellers paddling their boats along the canals which pass many historical sites over there which means the tourists will get the great picture for their unforgettable memories.

As the tourist demographic segment indicated at the people age between 24-33 who are technology savvy and have the time and money to travel to floating market by using technology as their lead guide for the travelling, therefore, it is very easy for them to come back and revisit the floating market again by using technology for both experiential reason and understand the information in various historical site along the floating market. However, from the result of this research, the researcher found that in terms of tourists' age, gender and educational level did not lead to significance in overall technology friendly and to destination loyalty.

The study of the technology and accessibility to an internet connection of the tourist and destination loyalty will be beneficial step for the future research. Furthermore, the application development and innovation management also could be the next step of the further research in order to develop more tourism destination loyalty. However, keep in mind that there is the truth about the accessibility and the quality of the connection or receptions that effect the cost of investment on tourism management respectively.

The development in information technology aspect in tourism as well as the local people's participation, the jointed information, the application development, the tourist attraction development of various places is necessary and is needed to be operated in a systematic tourist attraction development process.

Further research could be the study on how technology and innovation product or service can encourage the low – carbon tourism to another floating market and to many historical sites. Moreover, environmentally friendly technology that everyone can get involved in an environment conservation which enhancing the uniqueness of each tourist attraction.

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# THE IMPORTANCE OF TECHNOLOGICAL INNOVATION IN THE DEVELOPMENT OF SMEs

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# **ABSTRACT**

In today's general environment, with the further opening up of the domestic market, market competition has become increasingly fierce. Technological innovation has become a key factor for the survival and development of enterprises. With the technological progress of enterprises and the continuous improvement of market information liberalization, any product will replace it. Only through continuous technological innovation, enterprises gradually form their own core technologies, improve their competitiveness, and enable enterprises to continue to grow in market competition. Strengthen and eventually achieve a healthy and sustainable development of the enterprise.

In the research process, it was found that there is a shortage of technical talents in my country's small and medium-sized enterprises; insufficient capital investment; insufficient independent innovation capacity, weak innovation awareness; and insufficient market information. Therefore, according to the problems in technological innovation, some corresponding solutions are proposed to promote the better development of SMEs and expand their industrial scale.

**Keyword:** Enterprise; technological innovation; development status; problems and countermeasures.

## INTRODUCTION

# 1.1 Background of the study

From before to now, China's small and medium-sized enterprises have developed rapidly, and the competitiveness of enterprises has been continuously improved. With the advent of the new economic era and the accelerated pace of economic globalization, the emergence of new technologies and new concepts, enterprises must stand firm today in the rapid development of technology, technological innovation is the top priority of enterprise development. The development of enterprises is increasingly inseparable from technological innovation. Enterprises must adapt to this new situation, comprehensively promote innovative technologies, and seize new opportunities in the market (Gao, 2020).

In recent years, the influence of technological innovation on enterprises has been paid more and more attention by scholars. Many scholars have carried out many relevant theoretical studies and empirical research on the technological innovation activities of small and medium-sized enterprises in China. With the intensified competition in domestic and foreign markets, enterprises must face the competition of domestic enterprises and international multinational companies. Can enterprises continue to develop new technologies and new products required by the market in accordance with market needs and changes. Therefore, it is necessary to adopt corresponding development strategies, which is the key to the survival and development of enterprises in the competition. Small and medium-sized enterprises need technological innovation and invest in technology to seize market position and improve market competitiveness.

#### 1.2 Problem statement

Technological innovation plays an important role in enterprise development. The continuous innovation of technology helps enterprises to produce new products, develop new markets, and promote the development of enterprises.

Under the current general environment and market trends, countries around the world have placed enterprise technological innovation in an important position. The development of an enterprise is inseparable from technological innovation, and technological innovation plays a role in promoting enterprise development. The continuous updating of technology brings competitiveness to enterprises, gains market advantages, and promotes the economic development of enterprises. However, in the process of technological innovation, enterprises will also have some problems: lack of funds, lack of talents, weak innovation awareness, and imperfect mechanisms. Therefore, this article puts forward countermeasures according to relevant issues: strengthen policy support, establish professional institutions to train talents, improve personnel's awareness of innovation, establish a sound management system and other countermeasures (Chen, 2020).

# 1.3 Research questions

China attaches importance to the development of SMEs' technological innovation. Technological innovation is of great significance to the development of enterprises. In the process of technological innovation, companies will also encounter some problems: insufficient funds, lack of talents, weak innovation awareness, and insufficient market information.

Therefore, this article proposes countermeasures for related issues: strengthen policy support, establish professional personnel training institutions, improve personnel innovation awareness, establish and improve management systems and other countermeasures (Chen, 2020), enhance the enterprise's technological innovation capability, expand the market, and improve enterprise competition To establish a corporate brand.

# 1.4 Research objective

SMEs are an economic pillar of China's economic development, and enhancing the technological innovation capabilities of SMEs will help China build an innovative country (Li and Huang, 2018).

Technological innovation is of great importance to small and medium-sized enterprises. For small and medium-sized enterprises, innovative technology is the use of new ideas, new technologies and new equipment for research and development to enhance their own competitiveness. Highlight it. However, due to the influence of external factors and internal factors, SMEs still have some problems in technological innovation, which restricts the development of SMEs. What factors still exist that restrict the development of SMEs' technological innovation? How to solve? It is a question that we should consider now.

Therefore, the purpose of this article is to:

- 1. Study the current status of SME technological innovation to confirm the importance of technological innovation to the development of SMEs.
- 2. Put forward solutions to the existing constraints to ensure that the company can proceed smoothly in the future.

# 1.5 Significance of Research

Technological innovation is extremely important to the development of enterprises. Although my country's SMEs have developed rapidly in recent years, we must note that most of my country's SMEs are still developing slowly. Vigorously promote technological innovation among small and medium-sized enterprises, urge small and medium-sized

enterprises to improve their technological level, reduce production energy consumption, and take the development path of technological innovation as the mainstay, which plays an extremely important role in promoting the transformation of my country's national economic growth mode.

Technological innovation occupies a major position in the development of small and medium-sized enterprises. In order to pursue their own technological innovation, small and medium-sized enterprises must strive to overcome their own disadvantages and deficiencies. Through the adjustment of the external environment and the construction of the enterprise itself, increase investment in scientific and technological innovation, Increase technical equipment to maximize commercial value as soon as possible (Zhang, 2018).

This paper attempts to provide a certain reference for objective decision-making of technical innovation issues of small and medium-sized enterprises in my country through the research of innovative technologies on the development and problems of small and medium-sized enterprises. The research results provide some basis and practical countermeasures for the strategic decision and implementation measures of small and medium-sized enterprises in my country.

#### LITERATURE REVIEW

# 2.1 Theory

# 2.1.1 Review of foreign studies

The concept of innovation was first proposed by the Austrian economist Schumpeter. In 1912, in his book "Theory of Economic Development", he believed that modern economic development is rooted in innovation. In the late 1930s, he applied this theory to form a unique theoretical system based on innovative theory.

Since Schumpeter proposed the theory of innovation, many scholars have carried out extensive discussion and research on his basis, and conducted empirical analysis through statistical data to make the content of innovation research more abundant and perfect.

Since Schumpeter proposed the innovation theory, many scholars reconstructed the economic theory along his line of thought, making the content of innovation research more abundant and perfect. After the mid-1970s, Dilion(2008), Dosi(2009), Utterbac(2008) and others further discussed and pointed out the key to improving the effect of technological innovation. In the 1980s, American scholars R. Nelson and S. Winter enlightened and With reference to this, through in-depth research on the mechanism of the innovation process, a unique and novel branch of innovation evolution theory is created, which promotes the integration of technological innovation and institutional innovation, and further sublimates the research on innovation theory.

## 2.1.2 Summary of domestic research

China has made technological innovation one of the important strategies for national development. In recent years, the impact of technological innovation on economic development has attracted more and more attention from scholars. Many scholars have launched theoretical research and empirical research on the technological innovation activities of Chinese enterprises. Li Jijian conducted a relevant study on the relationship between economic growth, innovation capability, and marketization factors in various regions through regression analysis (Li, 2001). Scholars such as Zhu Xuexin conducted an empirical analysis of the economic effects of my country's investment in science and technology (Zhu and Zhang, 2007). Scholars such as Huang Zhilin from Southwest University of Science and Technology used patent authorization data as a proxy variable for technological innovation

activities to empirically test the relationship between technological innovation activities and economic growth in various provinces (cities and districts) in my country (Huang and Yu, 2007).

# 2.2 The relationship between technological innovation and enterprise development

The relationship between technological innovation and enterprise development is complementary and interactive (Du, 2013).

First, technological innovation promotes enterprise development. Technological innovation is the core competitiveness of an enterprise. Only with continuous technological innovation can enterprises be better adapted to the fiercely competitive market environment and create good conditions for the development of enterprises.

Second, enterprise development plays a role in technological innovation. During the development of an enterprise, the determination of goals and the planning of the development direction all require the guidance of technological innovation. The purpose of technological innovation is to allow the enterprise to develop better. Therefore, enterprises have great requirements for technological research and development capabilities

#### RESEARCH METHODOLOGY

# 3.1 Research Approach

In order to study the impact of China's cross-border e-commerce development on the Chinese economy, the importance of technological innovation in enterprise development, the paper uses literature research, empirical research and other methods to analyze the relationship between technological innovation and enterprise development by collecting data on the development of Chinese enterprises in recent years.

## 3.2 Unit of Analysis

The performance of technological innovation in enterprise development.

# 3.3 Data collection

This research aims to find the relationship between technological innovation and enterprise development. The findings of this study are based on previous literature and data collection and were reviewed.

## 3.4 Conclusion

According to the analysis of the relationship between technological innovation and enterprise development, the effect of technological innovation on Chinese SMEs is very significant. Through technological innovation, it is conducive to enhancing the competitiveness of enterprises, reducing costs, increasing productivity, increasing product diversity, improving the economic benefits and product quality of enterprises, and promoting the economic development of enterprises.

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# ANALYSIS OF THE EFFECT OF TECHNOLOGICAL INNOVATION AND ENVIRONMENTAL PROTECTION INVERSTMENT ON ENTERPRISE DEVELOPMENT

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## **ABSTRACT**

Under the guidance of sustainable development strategy and ecological civilization strategy, the concept of green environmental protection is gradually popularized. After realizing the importance of environmental protection, more and more companies have increased their investment in environmental protection. At the same time, in order to obtain and maintain a different competitive advantage from its competitors, the company also began to concentrate on improving its technological innovation capabilities. Technical innovation is an important driving force for enterprises to develop environmental protection, which can enable enterprises to better optimize the allocation of production factors and improve the efficiency of environmental resource utilization. On the contrary, environmental protection investment is an important means for companies to fulfill their environmental responsibilities, improve environmental performance, win the recognition and support of corporate stakeholders, and maximize the role of technological innovation investment and its results. This article expounds the importance of technological innovation to the environmental protection industry, analyzes the technological innovation experience of large companies and foreign companies in the environmental protection industry, points out the current weakness of independent technological innovation in the environmental protection industry, and puts forward suggestions for use.

**Keyword:** Technology innovation, Environmental protection, Enterprise development

# **INTRODUCTION**

## 1.1 Background of the study

Since the reform and opening up, the national economy has developed rapidly towards marketization and internationalization, and has achieved remarkable achievements. All regions have achieved rapid economic growth, and people's living standards and qualities have been significantly improved. Especially in the past few decades, China's industrialization level has rapidly increased, promoting rapid economic development and a significant improvement in living standards (Cui, 2017), but it has brought serious environmental pollution problems, leading to production and living Increased costs. As China's economic strength continues to increase, environmental problems have gradually emerged.

With the increasingly fierce competition of enterprises, the concept that technology is the first productive force has already gained popularity. Technology innovation also plays an indispensable key role in enterprise development. Technological innovation is an important way to enhance an enterprise's core competitiveness and an enterprise strategy.

Whether it is environmental protection or technological innovation, enterprises are the most important issues. Facing unprecedented opportunities and challenges are the main risks that enterprises cannot ignore. So from this we can think of the relationship between technological innovation and corporate environmental industries? How can they jointly promote enterprise development? To this end, please add relevant theories and explain such problems.

## 1.2 Problem statement

As can be seen from the above, technological innovation, environmental protection investment and corporate development have a complex and special relationship. With the continuous expansion of the production scale of environmental protection products, environmental protection technology innovation will continue to promote the formation and improvement of the environmental protection industry and become a strong support for the development of the environmental protection industry (Jiang, Zhang, Zhang, 2015). The impact of technological innovation and environmental protection investment on enterprises is uncertain. It believes that the environmental protection investment of enterprises can promote the development of technological innovation, and can also help enterprises establish a green social enteexplored related issues from a single perspective, and it wasrprise image, and help to further understand the nature of the impact of environmental protection investment and technological innovation on enterprises.

# 1.3 Research question

This article reveals the complex relationship between corporate environmental investment, technological innovation, and corporate development from two perspectives, short-term and long-term. Previous studies only easy to draw one-sided conclusions, so this article made up for the existing literature. Insufficient, enriched the research perspective of related issues, and found relevant empirical evidence of this issue using relevant data of China's heavily polluting industry, providing new ideas for companies to make full use of environmental protection resources and technological innovation resources to improve the overall development of the company.

# 1.4 Research objectives

Dealing with enterprises, the relationship between environmental protection investment and technological innovation is very important, which is also the research direction of this article. Therefore, the purpose of this study is: First, take heavy industry companies as an example to study the current trends and distribution of environmental protection investment in enterprises, and the role of technological innovation. Second, study the impact and extent of technological innovation and environmental protection investment on the company's development, and clarify the company's future work direction.

# 1.5 Significance of research

Environmental issues and innovation are issues of increasing concern to our government, businesses and the public. On the one hand, building an environment-friendly and resource-saving society is our long-term goal. On the other hand, achieving innovation-driven high-quality economic development is the solution to current problems. At this stage, it is an important means to solve many problems. Therefore, it is of great significance to understand the impact of corporate environmental protection investment and technological innovation on corporate development.

At this stage, on the one hand, Chinese companies and the public have relatively weak awareness of environmental protection and innovation, and have invested relatively little in environmental protection and technological innovation. On the other hand, the national environmental protection policy and R&D subsidy policy also need to be improved. Therefore, it is necessary to increase the willingness of enterprises to invest in environmental protection and technological innovation, which will help enterprises make scientific environmental protection investment and innovation decisions. For the government, it can promote relevant departments to formulate more reasonable environmental protection policies and R&D innovation subsidy policies. While properly increasing investment in technological innovation, enterprises carry out environmental protection investment practices, correctly guide enterprises to invest in environmental protection, adopt active environmental management strategies for enterprises, and improve environmental protection investment efficiency (Tang, 2017), which will help companies achieve better performance.

#### LITERATURE REVIEW

# 2.1. Impact of Enterprise Environmental Protection Investment on Enterprise Development

Through a large amount of literature research, it is found that the impact of corporate environmental protection investment on environmental responsibility will change with the changes of the company's internal characteristics, and because the company's external environment is completely different, the impact is also very complex. The following academic evidence confirms this.

There are many research results on the positive impact of corporate environmental protection investment on corporate performance. According to stakeholder theory, Yadav and Han (2016) used a large American company as a research sample and found that the company's continuous environmental investment will increase investors' expectations for stocks, which will have a positive impact on the company's stocks. The company's market value is consistent with the direction of the company's financial performance changes.

However, some scholars discussed the negative impact of environmental protection investment on the company's development. Wang Peng and Zhang Jie (2016) use China's Ashare manufacturing companies as a sample, and use mixed cross-section hierarchical regression and group test methods to test the relationship between the company's environmental investment, equity structure and company performance. The results show that the company's environmental protection investment is negatively related to the company's performance. The concentration of equity will enhance the negative impact of the company's environmental protection investment on the company's performance.

In addition, it was found that environmental protection investment had little effect on the company's financial performance, and the performance of environmental protection investment had no effect on the stock market returns. More attention should be paid to the causality of ecological efficiency, that is, the impact of different environmental management methods on economic performance.

# 2. 2 Impact of Enterprise Technology Innovation on Enterprise Development

With the technological changes affecting the world economy and social progress, the impact of corporate performance is getting deeper. Both governments and enterprises regard technological R&D and innovation as the top priority of sustainable development. After sorting out the relevant literature on technological innovation, it is found that the relationship between corporate technological innovation and corporate performance has always been the

focus of domestic and foreign scholars. This paragraph focuses on the impact of innovative technologies on corporate performance development.

Liang Laisan and Zhang Huanfeng (2005) took Chinese high-tech enterprises as the research object, and empirical research found that the R&D investment of high-tech enterprises in my country has a significant impact on profitability and development capacity, and the impact has a certain lag. However, due to the different research methods and directions of scholars, many conclusions have formally concluded that technological innovation has a negative impact on corporate performance development.

# 2.3 The relationship between environmental protection investment, technological innovation and enterprise development

Environmental protection investment is an indispensable part of an enterprise's environmental management strategy. At the same time, technological innovation strategies have become a particular concern in modern enterprise management. Therefore, environmental protection investment and technological innovation are commonly used in enterprise management, and what kind of relationship exists with enterprise performance development is also a problem that needs to be studied.

Chen Shou, Shi Xiubo and Wu Shiyuan (2015) are based on the basic theory of enterprise resources and empirical research using Chinese high-tech enterprises as research samples. It has been found that the investment of innovation resources has a significant positive impact on company performance, but the improvement of company performance depends only on innovation.

## RESEARCH METHODOLOGY

## 3.1 Research Approach

Through the combination of literature research and theoretical analysis, this paper studies the data of listed companies in China's heavily polluted industries, and reveals the complex relationship between company environmental investment, technological innovation, and company performance development from a short-term and long-term perspective.

# 3.1.1 Theoretical analysis

Porter hypothesis considers the special relationship between corporate environmental protection, technological innovation and corporate performance from the perspective of corporate dynamic development. Through technological innovation, we can improve product quality and production efficiency, and reduce related costs, so that the company can obtain domestic and even international markets. Leading competitive advantage.

In order to prevent and control environmental pollution and other issues, China encourages companies to improve R&D and innovation capabilities, and promote the transformation and upgrading of industries through the conversion of environmental protection and energy-saving technologies to improve efficiency and reduce emissions. To meet customer needs and maintain market competitive advantages, companies need to increase investment in environmental management technology innovation to gain recognition and support from stakeholders, actively fulfill environmental responsibilities, and increase investment in environmental protection.

# 3.1.2 Explanatory variables

(1) Enterprise environmental protection investment. Based on the definition of environmental protection investment of enterprises, drawing on Tang Guoping, Li Longhui and Wu Dejun (2013), the method of environmental protection investment measurement for Chinese enterprises, combined with the purpose, effectiveness and ecological principles of

enterprise environmental protection investment, is used for variable analysis.(2) Enterprise technological innovation. Yang Nan (2015) uses enterprise R&D intensity and technology share to measure enterprise technology innovation, and defines technology share as the ratio of the number of patents in a certain industry to the total number of patents in that industry, that is, financial R&D investment and human R&D Invest.

The impact of corporate environmental protection investment and technological innovation on corporate performance can form a "1 + 1 > 2" synergistic effect, which will enable enterprises to focus on environmental protection investment while increasing investment in technological innovation, a virtuous cycle of effect, laying a solid foundation for sustainable development of the enterprise The basics.

#### 3.2 Collection

This research aims to find the relationship between environmental protection investment, technological innovation and enterprise development. In order to review the relationship between previous papers, the findings of this study are based on previous literature, and are verified using theoretical analysis and actual cases.

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# PLANT-BASED PROTEIN: A VIABLE PROPOSITION FOR FUTURE FOOD DEMAND

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# **ABSTRACT**

Meat provides protein and variety of micronutrients such as iron and B-complex vitamins. Meat is both energy-dense and protein-rich. The way meat is produced today has significant effects on human health, livelihoods, and global economy. Finding meat alternatives has been a proposal to serve future demand in sustainable way. Plant proteins have favorable position due to short production cycle, variety of plants and accessibility. Recent innovation on protein rich-plants has progressed from simple substitute for meat to more processed products such as tofu, seiten and recent product innovation of plant-based meat which mimic sensational perception of animal meat, an indulgent attribute beyond functional and environmental benefits. The aim of this study is to investigate the above proposition by 1) define the nature of plant-based proteins, 2) compare plant-based proteins with other alternatives against animal meat on the cost and benefits, and 3) examine determinants affecting the acceptance of these products. The article employs literature review.

This paper can be useful for people consider to replace meat with plant-base proteins in their diet either voluntarily or mandatory. The entrepreneur can create a mix of Protein rich-plants available in their areas or get an inspiration to design plant-based proteins product. It may be further used by policy maker to include plant protein in food system.

**Key words-** Plant-based Proteins, Plant-based Meat, Meat alternatives, Meat analogue, Food Innovation, Sustainable food system

## **INTRODUCTION**

The role of meat in food system is crucially important. Meat is considered the most complete source of protein and energy. Meat has unique texture and taste sensation from mixture of fat and umami (savory taste) that make people crave for. Future of meat has been challenged from the production stand points. How to produce enough meat for 2 billion more people in the next 30 years, with no more harm to the environment and human health? The growing meat market provides a significant opportunity for livestock farmers and meat processors. But to produced more with less damage is a tough call. Meat supply chain causes greenhouse gas emission. Excessive consumption of meat causes obesity and diseases. In addition, animal disease pandemics creates health risk and threaten the economy. As a result,

it is important to reform meat production system, search for new technology, innovation of meat alternatives, and impact change in consumption habits. The goal is for sustainable food system as defined by Food and Agriculture Organization of the United Nations (FAO).

This paper studies plant-based protein and explores the suitability under the framework of sustainable food system and examine determinants affecting the acceptance of plant-based protein products.

The outline of the paper starts with understanding food system concepts and the description of plant-based proteins and its varieties. Follows by comparison with meat and other protein alternatives, then market perspective. The later part provides implication, and conclusion.

# **Understand the food system concept**

Food network is global, complex, and dynamic. Food System defined by Food and Agricultural Organization of the United Nations is the entire range of actors and their interlinked value-adding activities involved in the production until the disposal of food products. (Nguyen, 2018). The system flow requires human resources that provide labor, research, and education.

A sustainable food system (SFS) is one that delivers food security and nutrition for all in such a way that the economic, social, and environmental bases to generate food security and nutrition for future generation is not compromised (Nguyen, 2018). This means profitable contributions to economy (economic sustainability), benefits for the society (social sustainability), and no negative impact on the environment (environmental sustainability).

The sustainability in food systems in Figure 1 exhibits the spaces where food activities have impact on, whether it is positive or negative, and if it effects other factors, or whether it need to trade-off and the sum of effects. We use this framework to evaluate plant-based alternatives to meat in this paper.

#### **Meat Crisis**

Meat is the primary source of nutrition and has cultural value. Meat and dairy production (livestock) and its supply chain creates jobs and income, making positive impact to economy globally. On the other hand, meat production creates negative environmental impact. Farming resources such as soil and air are exhausted. More land used to produce feed taking up the space for eating plant for human. Meat protein is not accessible for people in poor countries. Excessive meat consumption leads to sickness. All those happenings put meat in a position of being not sustainable. Future demand for meat is huge and hard to fulfill with current capacity. For meat industry to survive, the whole supply chain must be reformed. And to lessen the impact, the world needs meat alternatives which is sustainable for the society and business itself.

Figure 1: Sustainability in food systems



Source: Nguyen, 2018

Based on FAO projection, in the business as usual scenario where no action is taken on outstanding challenge facing food and agriculture, meat production will increase by around by 52 percent in 2050 from 2012; follows the general increase of food consumption. And under sustainable scenario with proactive changes towards more sustainable food and agricultural systems, there will be a lower consumption of meat. Global meat production will increase by no more 30 % by 2050 compared with 2012, due to lower demand and the adoption of less-intense production practices. (Figure 2). (FAO, 2018).

Business as usual Towards sustainability Stratified societies 400 300 200 100 2000 2012 2020 2030 2040 2000 2012 2020 2030 2040 2000 2012 2020 2030 2040 2050 2050 Near East and North Africa High-income countries South Asia Sub-Saharan Africa China Europe and Central Asia East Asia and Pacific (excluding China) Latin America and Caribbean

Figure 2: Commodity balances for meat by region and scenario

Source: Adapted from FAO. 2018. The future of food and agriculture

#### **Meat Substitutes**

Research and Development on protein alternatives to meat provides 3 alternatives; plant proteins, insect protein, and cultured meat. Plant protein exist in fruits, leaves, and seeds or other parts has been consumed directly or processed to obtain proteins and nutrients. Vegetable farming can be done everywhere and using shorter time for cultivation, less

resource to produce, and accessible to the rich and the poor. However, it presents a negative impact to the environment in terms of toxicity from chemicals use and the biodiversity from GMO plant. As a result, plant protein is an attractive proposal to pursue for mead substitute. The misuse of chemicals and biodiversity threats have been handled by political sector and non-profit organization, thus, exempted from this study.

Cultured meat is considered one the novel alternatives as it does not exist naturally but biologically create. The energy and resources used for cultured meat development is not sustainable and it does not require agriculture supply. Production cost for cultured meat is still high above affordable price of meat protein. It is too early to anticipate the impact of cultured meat on human health and biodiversity.

Insects has been consumed in some parts of the world but only recently that it has been introduced as protein alternatives. It takes much shorter time span for production and requires less resources to cultivate. Crickets protein is available in the form of flour. It is used as protein substance in meat dialogue products or add to food. Insect plays important role in ecosystem. If it is taken away from the nature for large consumption, it will certainly create biodiversity issue. Insect farming can be a solution for mass production but the success is not clear. A critical point for any new food to overcome is consumer acceptance.

#### **Plant-based Protein Products**

The use of plant-based protein started by vegetarian practitioners who wanted to disassociate from animal-based products. A simple process was used to make protein food from plant such as tofu. The increase in demand for plant-based protein today is beyond protein replacement. It is driven by a need to reduce or replace meat consumption due to health reason, environmental concerns, or affordability of meat products. Beside nutritional value, consumer wants their meat substitutes to be like meat as much as possible in terms of texture, flavor, and appearance (Kyriakopoulou, Dekkers, Goot, 2019), as well as the appropriateness of the use in different dishes (Elzerman, Boekel, Luning, 2013). The product that intent to resemble meat characteristics is call meat analogue.

The development of acceptable texture and flavor for meat analogues is the biggest challenge for food producer. (Kyriakopoulou, Bekkers, Doot, 2019). For example, TVP has off taste of soy protein, and Tempah has moldy smell. Therefore, producers of meat analogues in recent years use different combination of plant proteins in the formulation. Minced meat alike from More Meat (www.morefoods.in) uses protein from mushroom and soy protein. (Figure 3). While Beyond Meat uses proteins from pea, mung bean, fava bean, and brown rice. (Figure 4). (www.beyondmeat.com).



Figure 3: Ingredient and nutritional facts of More Meat Product

Pictures from www.morefoods.in

Figure 4: Ingredient of Beyond Meat Product



Pictures from www.beyondmeat.com

The latest food technology is cultured meat using plant protein base. The research was done by Ben-Arye and colleagues. It is reported as an economical and on trend by using plant-based scaffolding structure. (Young and Skrivergaard, 2020).

Table 1 Main Sources of Plant Proteins

Oilseed proteins	Soybean, canola, cottonseed, peanut, sunflower seed, sesame,
	safflower, flaxseed, and linseed
Cereal protein	Wheat, corn, rice, barley, oats, sorghum, and grain amaranth
	Beans, chickpeas, guar, lentils, lupines, and peas
protein	
Leaf proteins	Alfalfa, tobacco, mulberry bush, grass, sugar cane, sugar bet and
	clovers
Mycoprotein	Filamentous fungus

Source: Adapt from Kyriakopoulou, Dekkers, Goot, 2019

The detail of major plant-based protein products is described below according to source of protein and complexity of production.

#### Tofu

Tofu is a jelly-like, high liquid content product made from soybeans. It is available in block form. It has rather neutral taste and color of soy milk. One of the oldest plant-based protein products. Mainly consumed in Asia. Tofu contains high protein, calcium, iron, vitamins, minerals, and dietary fiber. It has no cholesterol and low energy value.

## **Tempeh**

Tempeh is a mold-modified fermented product made from soybeans. Using starter culture with cooked beans to fermented into moldy bean cake. It is originated in Indonesia. It is used similarly to tofu but meatier because of moldy texture and mushroom-like smell. Tempeh contains high protein, fiber, and other nutrients, as well as vitamin B

# **Soy Protein**

A product from soybeans in power form. Soy protein is used as base for making meat analogue and meat extender. It is rich in protein and have functional properties such as water-holding, gelling, fat-absorbing, and emulsifying capacities. (Kyriakopoulou, Dekkers, Goot, 2019). Soy protein concentrate (SPC) has protein content of at least 65% on dry weight. Soy protein isolate (SPI) is a product with at least 90% protein on dry weight.

# **Textured vegetable protein (TVP)**

TVP is an extruded product made from defatted soya flour mixed with water and flavoring ingredients and color. It has spongy mass and chewy texture. It has high protein content. The product is use to impart a structure and appearance that resembles meat, seafood, or poultry (Joshi & Kumar, 2018). TVP is one of early meat analogue product. The first generation TVP was not well accepted for its sensory perception; the texture being uniform and dry, unpleasant taste of soy and bitter taste of soy protein. (Elzerman, Boekel, Luning, 2013).

#### Seitan

It is commonly known as wheat gluten. Seitan is produced by kneading wheat flour with water to develop sticky strands of gluten protein. The dough is then rinsed to wash away all the starch. Its consistency texture is like fibers that make up consistency of meat. (Schmidinger, 2012). It is used for texturization of meat analogue. Seitan is a cost-effective ingredient for meat substitute products. It has high protein, mineral, and low in carbohydrate and fat.

## **Tivall**

A plant-based product from Israel. It is claimed to be great tasting, wholesome and nutritious. Tivall is derived from wheat gluten and vegetable proteins, fortified with vitamins and minerals, vegetable oil, flavors, spices, water, and egg albumen. It is used as base to form foods such as burgers and sausages.

# **Mycoproteins**

It is derived from a natural fungus called fungal mycelium using fermentation process to ferment fungi spores with glucose and other nutrients. It has high fiber content. The technology was brought to market under "Quorn" brand from United Kingdom. The products include sausages, stakes, burgers, and chicken breasts. Mycoproteins is high in protein and fiber. Free from cholesterol, and low in saturated fats.

# Fibers from lupines

The fibers are made from lupines seeds or wheat. It can be formed into different shape, adding flavors and colors. It is marketed under brand Meatless from the Netherlands. It is also use to replace meat in hybrid product.

# Plant-based meat and Meat analogue

Both meat analogue and plant-based meat represent food products made from plants to replace meat and have an appearance, texture, and taste like meat products. (Joshi and Kumar, 2015), (Tziva, Negro, Kalfagiannie, Hekkert, 2019). The terms "plant-based meat" has clear context of what the product is for consumer, and often used in marketing communication.

Mixture of plant-base meat is versatile depending on design of the end products in terms of nutrition and consumer experience. Food engineering and science researches are ongoing to improve texturization and taste of plant-based meat. Tivall, Mycoproteins, and lupine fibers are the early generation meat analogues.

By design, plant-based meat product is suitable for people who avoid meat and seafood allergen. Legume crops such as soybeans, and cereal gluten have high rate of allergy. This limits the consumption of plant-based protein food from potential consumer.

Food sciences and technologies are researching to overcome these problems; to remove antinutritional substance from the plant-based meat products. (Joshi and Kumar, 2015).

Another important factor is price. (Elzerman, Boekel, Luning, 2013). Currently, meat analogues are sold at a higher price than conventional meat due to ingredient supply, R&D cost, infrastructure, economy of scale, and profit margin. (Specht, 2019)

# Comparison of Plant-based Protein and Novel Protein alternatives to Meat

In this section, we apply sustainable food system framework to compare meat and meat alternatives and use research output from Oxford Martin School, Impacts of the adoption of Alternative Proteins. (Oxford Martin School, 2019). We omit the explanation of modeling technique and focus on the test result for analysis. In the research, alternative proteins were classified into fruits & vegetables (nuts, peas, beans, Jackfruit), processed non-animal substitutes (tofu/soybeans, wheat gluten, mycoprotein), and novel alternatives (cultured meat, insects, alga). Types of meat includes in the analysis are beef, pork, and chicken. Plant-based meat was excluded from the study because the product information was not sufficient (Oxford Martin School, 2019) and the fact that each product has unique formula.

# **Environmental Impact – Greenhouse-gas emissions**

Sustainable environment is that the impact of food activities is neutral or positive. It means nature surround us which are air, soil, water, animal, plant, biodiversity, toxicity, carbon footprint, and food waste. The greenhouse effect is different for each type of food, basically by production life cycle. Here, the intensity of gas emission was measured from activities associate with production of different type of food along the value chain. Without doubt meat production ranks highest on emission intensities. Cultured meat high ranking was due to the process being done in the lab and high energy required to make culture medium. The result from Oxford's model shows that switching from beef to alternative proteins can lead to significant decrease in greenhouse-gas emissions by 7-26% depending on type of meat.

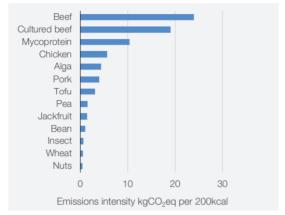


Figure 5: Emission intensities of the different food types

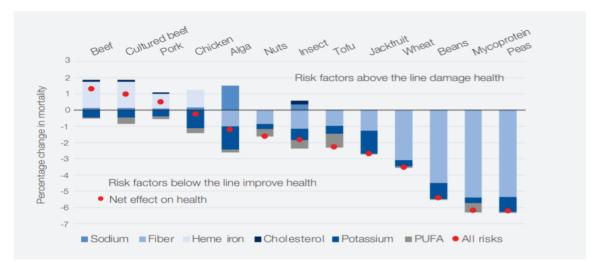
Source: Oxford Martin School, 2019

# **Social Impacts – Nutrition and Health**

Mortality and health risk related to food diet were analysis. The 6 risk factors are dietary fat causes risk for heart disease, sodium intake affects blood pressure, heme iron intake affects heart disease and stroke, fiber intake reducing risk from heart disease, cancer and stroke, low polyunsaturated fats, and low intake of potassium. (Figure 6). The result suggests that consumption of more beef increase individual risk of diet-associate mortality by

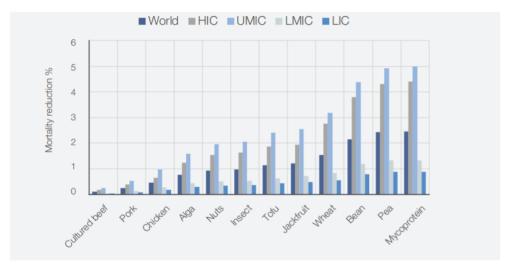
1.5%, due to higher heme consumption. Except for cultured meat, additional consumption of meat alternatives has positive effects on health, because of dietary intake. The best options to reduce mortality rates are mycoprotein and peas, followed by beans and wheat. Similar mortality reduction pattern is seen across income. (Figure 7).

Figure 6: The health effects of consuming an additional portion of different alternative proteins



Source: Oxford Martin School, 2019

Figure 7: Net health effects of substituting beef with different food types globally and by national income class



HIC: high-income country; UMIC: upper-middle-income country; LMIC: lower-middle-income country; LIC: lower-income country.

Source: Oxford Martin School, 2019

Table 2: Nutrient Content of 200kcal of Meat and Meat Alternatives

Nutrient (g)	Beef	Pork	Chicken	Wheat	Nuts	Bean	Pea	Tofu	Myco-protein	Jackfruit	Insect	Alga	Cult. bee
Calories (kcal)	200	200	200	200	200	200	200	200	200	200	200	200	200
Grams	83	67	140	60	33	157	247	241	235	211	43	69	83
Protein	20.89	17.30	24.39	5.79	6.43	13.65	13.38	24.05	25.88	3.62	27.49	39.63	20.89
Carbohydrates	0.52		0.06	44.87	7.39	35.91	35.68	2.84	7.06	48.95	2.89	16.48	0.52
Sugar				0.61	1.65	0.50	14.00	1.71	1.18	40.17		2.14	
Fibre				7.89	2.11	11.65	14.07	2.41	14.12	3.16	2.89	2.48	
Fat	12.11	13.99	11.33	1.17	17.63	0.79	0.99	12.67	6.82	1.35	8.68	5.32	12.11
Sat. fatty acid	4.67	5.20	3.22	0.26	2.64	0.11	0.18	2.21	1.41	0.41	2.89	1.83	2.33
Mon. fatty acid	5.33	6.23	5.05	0.17	11.38	0.06	0.09	3.18	1.18	0.33	1.47	0.47	5.33
Poly. fatty acid	0.41	1.26	2.11	0.70	3.25	0.43	0.46	6.40	4.24	0.20	3.97	1.43	2.74
Transfats			0.09		0.01								
Cholesterol mg	70.00	63.30									131.64		70.00
Calcium mg	20.83	14.81	8.39	19.88	28.67	44.09	61.73	679.52	100.00	50.53	65.10	82.76	20.83
Iron mg	2.23	0.87	1.15	2.23	1.23	4.63	3.63	4.92	1.18	0.48	2.54	19.66	2.23
Heme mg	0.78	0.44	0.52										0.78
Magnesium mg	18.33	16.16	29.37	70.48	74.79	70.87	81.48	84.34	105.88	61.05	52.08	134.48	18.33
Phosphorus mg	177.50	152.19	248.95	194.58	144.32	223.62	266.67	267.47	611.76	44.21		81.38	177.50
Potassium mg	294.17	243.77	730.07	237.35	211.86	634.65	602.47	313.25	235.29	943.16	438.34	940.00	294.17
Sodium mg	70.83	49.16	83.92	1.81	1.32	3.15	12.35	9.64	11.76	4.21	175.05	722.76	70.83
Zinc mg	5.16	2.16	2.06	1.78	1.34	1.69	3.06	2.58	21.18	0.27	7.59	1.38	5.16
Copper mg	0.07	0.03	0.09	0.29	0.50	0.38	0.43	0.48	1.18	0.16		4.21	0.07
Vitamin C mg		0.47			0.26	1.89	98.77			28.84	0.43	6.97	
Thiamin mg	0.04	0.48	0.15	0.18	0.10	0.25	0.66	0.12		0.22		1.64	0.04
Riboflavin mg	0.15	0.15	0.34	0.11	0.13	0.09	0.33	0.12	0.54	0.12	1.44	2.53	0.15
Niacin mg	4.74	2.83	7.80	3.22	2.05	0.91	5.16	0.58	0.82	1.94	3.25	8.84	4.74
Pantothen. mg	0.57	0.35	1.53	0.61		0.35	0.26	2.03	0.59	0.49	3.62	2.40	0.57
Vitamin B6 μg	0.32	0.26	0.72	0.12	0.12	0.19	0.42	0.20	0.29	0.69		0.25	0.32
Folate µg	7.50	4.04	1.40	16.87	19.77	204.72	160.49	21.69		50.53		64.83	7.50
Vitamin B12 μg	2.28	0.36	0.78								3.62		2.28
Vitamin A µg	5.83	1.35					93.83			10.53		20.00	5.83

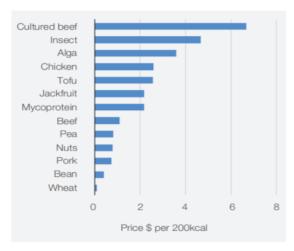
Source: Oxford Martin School, 2019

# **Economic Impacts: Food price**

Price of meat and alternative proteins were compared on price in US\$ per 200kcal. nutritional unit. Take note that Oxford Martin School collected data from North America and Europe. Food price varies from country to country. For Asia where tofu is common and chicken is consumed more than meat, relative prices are lower than meat. In this study, conventional protein alternatives such as wheat and bean are cheaper on calorie basis compare to meats. (Figure 8). Legume and wheat can be grown almost everywhere. It is easy to obtain at lower price and not require extensive care., cost for plantation which cause no negative impact to the environment.

The comparison between meats and meat alternatives above proves that plant-based protein is the most sustainable meat alternatives.

Figure 8: Estimated current prices of the different food types



Source: Oxford Martin School, 2019

# **Market Perspective**

The demand for plant-based protein and meat analogue will continue to grow. The matter is when it will become common stables in the household. The demand for meat analogue comes from high-income countries in Europe and North America. Consumer needs are driven by health issue caused by over-consumption of meat especially red meat and the awareness of environmental impact. Research studies on consumer experience and adoption of meat dialogue in these markets suggested that consumer do not want to trade off indulgent experience for a better-for-heath alternatives that is hard to prepare and consumed. (Elzerman, Boekel, Luning, 2013). (Spencer, 2013). The missing sensation of meat analogues today is the mouthfeel such as texture, juiciness, umami, and appearance of the food. Meat analogues are sold at much higher prices compare to meat products, make it hard for consumer to switch.

Behind consumer demand is usually a social movement and policy makers to encourage the adoption. In case of meat analogue and plant-based diet, we have seen celebrities and NGOs as activists, the government as facilitators through tax and social campaign, and consumer communities to share knowledge and encouragements. And lastly the business owners who drive market expansion with new product launches and education program to convert users.

Several brands use different mix of plant ingredients to give a characteristic of meat, but mostly are using the same base proteins such as soy protein, gluten, egg, and milk. (Table 3). (Kyriakopoulou, Bekkers, Doot, 2019). Research and development in plant protein intermediates as well as meat analogue are progressing in response to the challenges by experimenting alternative plant ingredients, improving aesthetic property and mouthfeel, identifying new protein plants, bringing the operation cost down, and trying a hybrid approach such as cultured meat on plant base, and meat extender. The global meat substitutes market has not reach maturity, it is at early adoption stage and starts to take off by in response to consumer trend for healthy food.

As for low-income market, the issues are affordability and sufficient supply of protein food to feed growing population.

Table 3: Known meat analogue companies in North America and Europe, and their signature products

Country	Company	Signature Product	Ingredients According to Packaging	Website
U.S.	Impossible foods	Impossible burger	Water, textured wheat protein, coconut oif, Potato protein, natural flavors, 2% or less of: Leghemoglobin (soy), yeast extract, salt, soy protein isolate, konjac gum, xanthan gum, vitamin C, thiamin (vitamin B1), zinc, niacin, vitamin B6, riboflavin (vitamin B2), vitamin B12.	https://www. impossiblefoods.com/
U.S.	Beyond meat	The Beyond Burger	Pea protein isolate, expeller pressed canola oil, refined coconut oil, water, yeast extract, maltodextrin, natural flavors, gum Arabic, sunflower oil, salt, succinic acid, acetic acid, Non-GMO modified food starch, cellulose from bamboo, methylcellulose, potato starch, beet juice extract (for color), ascorbic acid (to maintain color), annatto extract (for color), citrus fruit extract (to maintain quality), vegetable glycerin.	http://beyondmeat.com/
U.S.	Morning star Farms	Grillers original burgers	Extruded vegetable protein (wheat gluten, soy protein concentrate, water for hydration), egg whites, corn oil, calcium caseinate, contains two percent or less of modified tapioca starch, onion powder, canola oil, triglycerides from coconut oil, hydrolyzed vegetable protein (corn gluten, wheat gluten, soy protein), dextrose, salt, soy protein isolate, autolyzed yeast extract, sugar, natural and artificial flavors from non-meat sources, caramel color, cultured whey, maltodextrin, garlic powder, spice, cellulose gum, disodium guanylate, disodium inosinate, soy sauce (water, soybeans, salt, wheat), vitamins and minerals (niacinamide, iron [ferrous sulfate], thiamin mononitrate [vitamin B1], pyridoxine hydrochloride [vitamin B6], riboflavin [vitamin B2], vitamin B12), sesame seed oil, celery extract, soy lecithin.	https://www. morningstarfarms.com
Canada	Gardein	Mandarin crispy Chick'n	Water, soy protein isolate, vital wheat gluten, expeller pressed canola oil, methylcel- lulose, organic ancient grain flour (KAMUT khorasan wheat, amaranth, millet, quinoa), yeast extract, potato starch, sea salt, natural flavors (from plant sources), organic cane sugar, onion powder, vinegar, garlic powder, color added, pea protein, carrot fiber, beetroot fiber, spices, paprika and turmeric extracts, natural smoke flavor. Batter: Water, enriched wheat flour (wheat flour, niacin, reduced iron, thiamine mononitrate, riboflavin, folic acid), rice flour, modified corn starch, sugar, garlic powder, salt, spice, baking powder. Sauce: Organic cane sugar, water, soy sauce (water, soybeans, wheat, salt), fruit puree (water, Mandarin and tangerine juice concentrate, chopped orange peels, natural flavor), corn starch, vinegar,	https://gardein.com/
Sweden, Ger- many, The Netherlands	Tivall/Garden gourmet/Halsans KoK	Schnitzel  Nuggets	Rehydrated soy protein (48%), water, breadwash (wheat flour), water, salt, yeast, vegetable oil, bell pepper extract, vegetable oil (sunflower), flour (wheat), onion, stabilizer, methylcellulose, carrageenan, guarlemeal flour, starch, yeast extract, salt, onion powder, pea fiber, garlic powder, protein hydrolyzate (wheat), spices maltodextrin, aroma 35% rehydrated soy protein, rehydrated wheat protein, water, breadcrumbs, vegetable oil, onion, free-range protein, wheat flour, yeast, salt, onion powder, maltodextrin, hydrolyzed wheat protein, garlic powder, spices, herbs, stabilizers (guar gum, E401), vitamin B12, iron	http://www.tivall.eu/
		Vegane burger	Water, 14% soy protein, 5% wheat protein, vegetable oils (sunflower, rape in modified proportions by weight), onions, starch, stabilizer (methylcellulose, carrageenan), salt, maltodextrin, yeast extract, flavors, onion powder, garlic powder, barley malt extract, sugar, caramelized sugar, maltodextrin (smoked), spices, acidulant (citric acid).	
The Netherlands	The vegetarian Bucher	Vegan NOCHICKEN Chunks	93% soy structure (water, soy protein concentrate, salt), sunflower oil, natural flavoring	www. thevegetarianbutcher. com/
UK	Sgaia's vegan meats	Mheat burger	Wheat gluten, soya protein, water, yeast extract, shoyu soy sauce (soya, wheat), sun-dried tomatoes, kibbled onions, balsamic vinegar, molasses, sea salt, onion, garlic, black pepper, smoked paprika, beetroot, thyme, majoram, oregano, basil, sage, parsley.	https://www.sgaiafoods co.uk
UK	LINDA McCART- NEY FOODS	Vegetarian Shredded Hoisin Duck	Rehydrated textured soya and wheat protein (89%) (water, soya protein, wheat gluten, salt, soya bean oil, natural flavoring), seasoning [granulated sugar, barley malt vinegar powder, potato starch, soya sauce powder (soya and wheat), tomato powder, yeast extract, caramelized sugar, garlic powder, spices (ginger, fennel, black pepper, aniseed, cinnamon, clove), salt, malted barley extract, natural flavoring, color: Paprika extract], rapeseed oil, malted barley extract.	http:// lindamccartneyfoods. co.uk/
France	Toreos	Le Sauté Végétal	Wheat (protein and fiber), Chickpeas (gram flour and whole chickpeas), water, sunflower oil, salt, natural flavoring.	https://le-saute-vegetal.com/

Source: Kyriakopoulou, Dekkers, Goot, 2019

# **Implications and Conclusions**

Plant-based protein is a viable food for the future in response to growing demand for food especially meat protein. Soy has complete proteins at similar content of beef. It is high in iron , folate, and fiber, but no cholesterol. Plant consumption promotes sustainable food system which is now vulnerable due to intensive production of meats.

The food technologies and scientific knowledges supporting the development of plant-based protein are widely available from research institutes and within the firms. Various plant proteins have been produced and use as intermediate ingredient for meat analogue products such as soy, wheat, green pea. The search for local protein plant is ongoing in order to reduce malnutrition.

Intensive meat production and inequality access of meat create an unstainable food system and insecurity for the future generation. This awareness drives consumer demand for meat substitutes. Meat analogues made purely from plants have been developed to replace meat consumption. Meat analogue product can be design according to the need of the market, nutritious plants can be mixed to achieve the level of nutrition desired. However, plant proteins in meat analogous can not deliver the same characteristic of meat, and some have off note taste. Currently consumer is compromising their need for perfect meat substitutes with meat analogue available today. With on going food researches on meat analogue, the disadvantages are addressed to overcome. Meat analogue market is established for many years in Europe but only recently that the interest is booming globally. The expansion is mostly among vegetarian and flexitarian consumer considered as early adopters of plant-based meat innovation.

A failure to meet consumer taste expectation and high price are burden to recruit more consumer to the category. Diffusion of meat analogue is taking place right now in many countries including Thailand. Knowledge is exchange to improve knowledge of plant proteins. The companies are using different recipe to create meat analogue. The products with 100% plant are also consume by vegetarians. There is also plant-based protein and meat analogue that use egg and dairy products available. Food technologies can turn plant protein to food product that look like meat or served as protein substitutes.

Due to the adverse effect of meat consumption to the environment and health, meat substitute products especially animal-free product like meat analogue gains support from NGOs, celebrities, scientists, and political actors. The diffusion has been accelerated in Europe accordingly. Whether the effort to improve taste perception of meat analogue will be successful. The emerging group of consumers for plant protein and meat analogue is the flexitarian who choose vegetarian diet occasionally. The insight to why they do interval vegan diet may lead to new product development.

As for low income consumer, the top priority is to reduce malnutrition rate. The knowledge on plant proteins can help organization to design food program that makes plant proteins and simple meat analogues available for the consumers. It is also suggest to provide food education for the poor consumer to be able to process their crops for food and support the community with food technologies.

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# THE INFLUENCE OF LOGISTICS FIEXIBILITY AND LOGISTICS SERVICE QUALITY ON COMPETITIVE ADVANTAGE OF LOGISTICS SERVICE USERS IN SPECIAL ECONOMIC ZONE, LAO PDR

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#### **ABSTRACT**

**Purpose**: A way that logistics service provider companies have found to respond to the challenges of customer's competitive advantage (CA) is the logistics services quality development. In this sense, the purpose of this paper is to estimate the influence of logistics flexibility (LF) and logistics service quality (LSQ) on the competitive advantage of logistics service users in the special economic zone, LAO PDR. For this, an exploratory survey with 284 companies in the Special Economic Zone (SEZ) Lao PDR. The collected data, modeled in structural equations, The results showed that the conceptual model aligns is CMIN = 144.107, DF = 87, CMIN/DF = 1.656, CFI = .985, SRMR = .035, RMSEA = .048, PClose=.570, IFI=.985, TLI=.982, and shown evidence that logistics flexibility has a significant direct effect on competitive advantage and logistical service quality and logistical service quality is a full mediator effect.

**Methodology**: To respond to the research problem and to meet the stated objective, a study used an exploratory survey by questionnaires with 284 logistics service user companies in the Special Economic Zone (SEZ) Lao PDR.

**Findings**: The collected data, modeled in structural equations, have shown evidence that the influence direct and indirect effect of logistics flexibility on competitive advantage and logistics services quality totally mediates the relation between the logistics flexibility (LF) and the competitive advantage of logistics service users.

**Research Value**: The logistics service quality perceived by the logistics service users is derived from the logistics flexibility capabilities of the logistics service providers and the logistics service quality to the user's competitive advantage.

**Keywords**: Logistics Flexibility, Logistics Service Quality, Competitive Advantage, Structural Equation Modeling, SPSS, Amos.

# **INTRODUCTION**

Laos PDR is a land lock country in the 10 member countries (Zamounty, 2556) and making the Lao country faced higher logistics costs and competitive disadvantage (Barton, 1960). Access to foreign markets difficultly, the economy has trends to rely on resources from other countries. The domestic logistics system has many limitations (Rodrigue et al., 2016). and there are land links across 5 countries including China, Myanmar, Thailand, Cambodia, and Vietnam. Through three main routes in the economic development of the country (Business Research Department, 2560). In response to the government's strategic

plan for the development of landlocked national policy become a land link country (RTN Logistics Company Limited, 2019). The government determined development policies and promote special economic zones in the country for economic development and reduce the inequality of economics (Government of Lao PDR, 2018).

Under different environmental conditions of uncertainty and competition unlimited. Logistics flexibility effect on logistics service quality development, logistics performance, considering a select the best firm's strategy in logistics operation and logistics performance efficiency that can create firm's capability in compete with each other (Yu et al., 2017; Abdul Aziz et al., 2017; Chou et al., 2018; Hartmann and Grahl, 2011; Mejia, 2013; Hawary et al., 2017; Guzman et al., 2017). The logistics service quality is factors define the logistics performance effectively in the evaluation of customer value perceptual to respond the needs and expectations of customers for changing environment all time toward competitive advantage (Garvin, 1984; Rafiq, Jaafar, 2007; Bienstock et al., 1997; Sohal et al., 1999; Mentzer et al., 1999; Mentzer et al., 2001; Mentzer and Firman, 1994; Lalonde, 1976; Mentzer et al., 1989; Winter Fernandes et al., 2018). The value of customers received from using the logistics service including quality advantage, cost advantage, marketing opportunity, and dominant marketing position more than competitors (Porter, 1985; Christopher, 1994; Li et al., 2006; Treacy and Wiersema, 1993; Christopher, 2011; Newbert, 2008; Peteraf and Barney, 2003; Sigalas et al., 2013).

#### RESEARCH OBJECTIVE

- 1. To study the influence of logistics flexibility on competitive advantage.
- 2. To study the influence of c on logistics service quality.
- 3. To study the influence of logistics service quality as a mediator relationship between logistics flexibility and competitive advantage.

# LITERATURE REVIEW

#### 3. 1 Literature Review

# **Logistics Flexibility Theory**

Fornell et al., (1996) argued that logistical flexibility is a firm capability to respond quickly to customer needs efficiently (Zhang et al., 2003; Hartmann and De Grahl, 2011). and logistical flexibility is the capability of the logistics service provider in logistics process adjustment, logistics operations, Liaison and developing the logistics innovation activities continued in response to customer needs more effectively (Kunze, 2009; Naim et al., 2006; Lummus et al., 2003; Waters, 2003; Martin and Helen, 2003).

# **Logistics Service Quality Theory**

Mentzer et al., (1989) and Bienstock et al., (1997) said that the logistic service quality has a critical role in generating benefits and utilities to create value for its service quality and competitive advantage. Later in the study of Mentzer et al., (2001) identified the logistic service quality became important sources in making a differentiation. logistic service quality can be measured from availability, timeliness, delivery accuracy, delivery empathy, and delivery condition (Mentzer et al., 1999; Saura et al., 2008; Winter et al., 2018; Mentzer et al., 2001; Mentzer and Flint, 1997).

# **Competitive Advantage Theory**

Christopher (1999) said that the competitive advantage is the value of customers achieved from using the logistics service, cost reduction, target market opportunities, and

outstanding market position more than competitors. competitive advantage can be measured from quality advantage, cost advantage, time advantage, target market responsiveness and market opportunities (Newbert, 2008; Porter, 1985, 1993; Sigalas et al., 2013; Kotler, 2003; Li and Dingti, 2019; Harrison and Van Hoek, 2008).

# **Summary of key dimensions and description**

Table 1: Summary of key dimensions and description

<b>Key Dimensions</b>	Description
Logistics operation adjustment	The company can logistics operation adjustment faster than the competition
~	and meet customer needs.
Special logistics plan	The company can build a special logistics plan to support the special orders of customers effectively.
Logistics process adjustment	The company can logistics process adjustments accurately follow the instructions of the operator and the customer.
Response the urgent needs	The company can respond to the urgent needs of key customers effectively.
Improve logistics system	The company can the improve logistics system through the supply chain.
Availability	Logistics service providers company has the availability to logistics service and adjust problems in delivery to order quality.
Timeliness	Logistics service provider company has service delivery on timeliness always determined.
Delivery accuracy	Logistics service providers have delivery operations in high delivery accuracy.
Empathy	Logistics service providers focus on delivery empathy always.
Delivery condition	The logistics service providers can manage the delivery conditions more effectively.
Quality advantage	When compared competitor, your company get logistics service on quality advantage than more competitors.
Cost advantage	When compared competitor, your company get logistics service on cost advantage than more competitors.
Time advantage	When compared competitor, your company get logistics service on time
J	advantage than more competitors.
Target market responsiveness	When compared competitor, your company get logistics service on target
36.1	market responsiveness than more competitors.
Market opportunities	When compared competitor, your company get logistics service on market opportunities than more competitors.

## RESEARCH HYPOTHESES DEVELOPMENT

Effect of Logistics Flexibility on Competitive Advantage

Lee et al., (2013) studied the relationship between supply chain flexibility and competitive advantage. The study focuses on logistics flexibility and competitive advantage strategy of logistics cost, logistics quality, and lead time. The results show that logistics flexibility has a positive influence on delivery speed strategy. Such as with Shah and Sharma (2014) argued that logistics flexibility has a positive influence on customer satisfaction leading to competitive advantage. Such as Tachizawa et al., (2010) said adding that the explain for logistics flexibility was instrumental in the creation of logistics service quality and competitive advantage. Furthermore, in studies of Maldonado-Guzman et al., (2013) pointed out that the logistics flexibility potentiality is important in defining business strategies and Guzman et al., (2017) identified logistics flexibility can respond to customer need of time, value, performance and advantage more than competitors.

 $H_1$  = Logistics flexibility has a positive influence on competitive advantage.

Effect of Logistics Flexibility on Logistics Service Quality (LSQ)

Yu et al., (2017) said that logistics flexibility has a positive influence on logistics service quality. Such as with Abdul Aziz et al., (2017) said that logistics flexibility has a positive influence on logistics service quality and if the logistics service provider can create value-added much more effect on logistics service quality and logistics performance increasing much more only. At the same time Chou et al., (2018) have the opinion of logistics flexibility has a positive influence on customer trust toward the firm's competitiveness.

 $H_2$  = Logistics flexibility has a positive influence on logistics service quality.

Effect of Logistics Service Quality (LSQ) on Competitive Advantage (CA)

Winter et al., (2018), Završnik, and Jerman (2019) argued that the logistics service quality has a positive influence on customer satisfaction toward competitive advantage. This allows the business to business market can compete with other businesses in a sustainable competitive advantage. Such as with Neni Kusumadewi and Karyono (2019) pointed out that logistics service quality and logistics service innovation effect on competitive advantage. Similarly, Jaafar (2006) emphasizes that logistics service quality can create customer satisfaction toward competitive advantage (Lee et al., 2011; Odintsova et al., 2019). and logistics service quality has effective to create a competitive advantage (Abdalrahman and Lehota, 2018; Giovanis et al., 2012; Oláh et al., 2018).

 $H_3$  = Logistics service quality has a positive influence on competitive advantage.

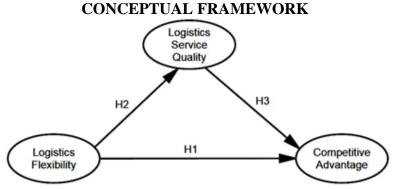


Figure 1: Conceptual Framework.

# RESEARCH METHODOLOGY

The population is 592 manufacturing companies in 11 places of special economic zones, Lao PDF (Investment Promotion Department, 2020). After that determine the appropriate sample size and covers almost all categories of logistics service users for structural equation model analysis by determined 15 times per parameter (Nunnally, 1978; Nunnally and Bernstein, 1994). This research has 15 parameters. Thus, The minimum sample size used is 15x15 = 225 companies and real data collection is 300 companies. using the 284 companies for SEM assumption (Kumar and Kumar, 2015).

A comprehensive set of items from measurements was used to measure the dependent variable (competitive advantage), the independent variable (logistics flexibility). The logistics service quality variable was considered a mediator variable. All items were rated on a seven-point Likert-type scale in which a score of 1 indicated "strongly disagree" and a score of 7 indicated "strongly agree" (Colman et al., 1997). and the mean of 7 scales (Sukamolson, 2547).

The questionnaire improved from the concepts and theories of Sigalas et al., (2013), Yu et al., (2017), Winter et al., (2018), Bienstock et al., (1997) and Mentzer et al., (1999). After that bring the questionnaire to the IOC's inspection (Turner and Carlson, 2003; Ackerman, 2005) from logistics experts. Then the preliminary questionnaire was submitted to pre-tests in the period from 30 companies of logistics service users in Eastern Seaboard Industrial Estate (Rayong, Thailand) and Amata City, Rayong Industrial Estate (Thailand), to improve the content and understanding of the measures by considered Cronbach alpha coefficient ( $\alpha$ ) at .70 up (Cronbach, 1951). The result of the reliability test is .976.

Based on 592 companies in the special economic zone, Lao PRD. a judgment sampling (Nunnally, 1978; Nunnally and Bernstein, 1994). After that sent the e-mail to the company manager involved in logistics activities included a brief presentation about the research purpose and the link to access the questionnaires. Besides, there was a collaboration from the logistics manager, which made telephone calls to companies, with the recommendation that companies respond to the survey.

Structural equation modeling analysis by IBM SPSS+Amos (James, 2014) and stats tools package of Microsoft excel (Gaskin, 2016) for causal relationship analysis of variables. Thus, research determined model fit indices and statistical index following this:

Statistical index for the measurement model *Table 2: Statistical index for the measurement model* 

Model fit indices	Statistical index	References
CMIN	-	
DF	-	
CMIN/DF	<3	Carmines and McIver (1981); Marsh and Hocevar (1985)
CFI	>0.95	Kline (1998)
SRMR	< 0.08	Hair et al., (1995); Kumar and Kumar (2015)
RMSEA	< 0.06	Hair et al., (2010)
PClose	>0.05	Bentler (1990); Hooper et al., (2008)
IFI	< 0.05	Hu and Bentler (1999)
TLI	< 0.05	Hu and Bentler (1999)

#### **RESULTS AND FINDINGS**

7.1) Demography and using logistics service in the special economic zone (SEZ), Lao PDR.

Demography and using logistics service of companies that invest in the special economic zone (SEZ), Lao PDR. The result showed that 13.33% is categorized in industrial production in agriculture, 52% of companies have an operation over 6-10 years, 50% of personnel between 51-100 people, 20.33% of shipments to China, Japan and Vietnam, 65.67% of private sector investment, 54.67% of East-West economic corridor routes, 22.33% of using logistics service of KLINE LOGISTICS (THAILAND) Co., Ltd. (Thailand), 43.67% of using logistics service over 7-9 years, 56% of logistics service quantity between 4-6 times per month, 41% of each shipment have weighs between 21-30 tons per times, 83% of each shipment used the time to target market 10-20 days per time, 15.67% of the documents implementation process of institution concern to delayed, 45.67% of delivery to ports and airports of neighboring countries and then shipments to the target countries, 21.67% of delivery to Laem Chabang Port (Thailand) and 15.33% of delivery to Suvarnabhumi Airport before delivery to the target country.

# 7.2) The opinion's analysis of logistics service user on LF, LSQ, and CA

Table 3: The analysis shows the opinions of logistics service users on the variables in the research.

Constructs	Mean	SD	opinions	Sk	Ku	VIF
Logistics flexibility) LF)	5.464	.978	agree	443	427	2.169
Logistics service quality) LSQ(	5.452	1.150	agree	533	762	2.816
Competitive advantage )CA)	5.486	1.167	agree	739	388	2.292

The opinions level of logistics service users on logistics flexibility (LF) at agree level has mean = 5.464, SD = .978,  $\alpha$  = .908, Sk = -.443, Ku = -.427, VIF = 2.169. The opinions level of logistics service quality (LSQ) at agree level has mean = 5.452, SD = 1.150, Cronbach's alpha ( $\alpha$ ) = .933, Sk = -.533, Ku = -.762, VIF = 2.816 The opinions level of Competitive advantage (CA) at agree level has mean = 5.486, SD = 1.167,  $\alpha$  = .934, Sk = -.739, Ku = -.388, VIF = 2.292.

#### 7.3) Results of structural equation modeling (SEM)

1) The latent variables reliability and validity analyses

Table 4: Analyses of latent variables reliability and validity

Items	Standard loadings	Cronbach's alpha (α)	t-value	p-value<.001
LF1	.757	.898	15.322	.000
LF2	.767	.899	15.646	.000
LF3	.848	.881	18.465	.000
LF4	.842	.881	18.264	.000
LF5	.867	.879	not estimated	.000
LSQ1	.870	.916	not estimated	.000
LSQ2	.867	.914	19.947	.000
LSQ3	.812	.924	17.668	.000
LSQ4	.847	.919	19.069	.000
LSQ5	.891	.912	21.045	.000
CA1	.873	.916	25.226	.000
CA2	.954	.903	not estimated	.000
CA3	.902	.912	28.033	.000
CA4	.700	.947	15.347	.000
CA5	.880	.915	25.872	.000

Note: not estimated = regression weight = 1.000

The first-order factors of LF1, LF2, LF3, LF4, and LF5 have respective loadings of .757, .767, .848, .842, .867 (respectively) and all factors loadings of logistics flexibility are significant at .000 (p < .001).

The first-order factors of LSQ1, LSQ2, LSQ3, LSQ4, and LSQ5 have respective loadings of .870, .867, .812, .847, .891 (respectively) and all factors loadings of logistics service quality are significant at .000 (p<.001).

The first-order factors of CA1, CA2, CA3, CA4, and CA5 have respective loadings of .873,.954, .902, .700, .880 (respectively) and all factors loadings of competitive advantage are significant at .000 (p<.001).

#### 2) The discriminant validity and reliability of SEM Model analysis

Table 5: Discriminant validity and reliability analysis

Constructs	LF	LSQ	CA	α	CR	AVE	MSV	MaxR
Logistics flexibility (LF)	.817			.908	.909	.668	.602	.915
Logistics service quality (LSQ)	.776	.858		.933	.933	.736	.607	.935
Competitive advantage (CA)	.682	.779	.866	.934	.937	.750	.607	.957

Note: CR = Constructs Reliability

AVE = Average Variance Extracted

MSV = Maximum Shared Variance < AVE

MaxR = Max Reliability

Constructs reliability (CR) between .909 to .937 (CR >. 70), Average Variance Extracted (AVE) between .668 to .750, Maximum Shared Variance (MSV) < AVE at all between .602 to .607, Max Reliability between .915 to .957 and then discriminant validity and reliability analysis can conclusion that measurement model of variables with reliability and final measurements, unidimensionality, CR, content validity, convergent and discriminant are shown no validity concerns in Table 5.

3) Model fit measures of LF on CA with empirical data (without logistics service quality: LSQ)

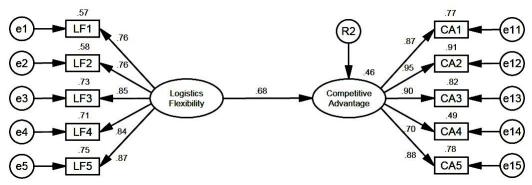


Figure 2: Measurement model of LF on CA (without mediation LSQ)

The SEM model estimate of hypothesized model results showed that the model fit indices for this first-order model suggest a good fit with with empirical data is CMIN = 63.397, DF = 34, CMIN/DF = 1.865, CFI = .988, SRMR = .038, RMSEA = .055, PClose = .318, IFI = .988, TLI = .983 and R<sup>2</sup> = .465, structural coefficient, equal to .682, SE = .071, t-value = 12.463, Level of significance, p-value < .001. When considering structural coefficient can explain that logistics flexibility has direct effect on competitive advantage at significantly in *Figure 2*.

4) Model fit measures of LF, LSQ on CA with empirical data (full model) with mediation LSQ

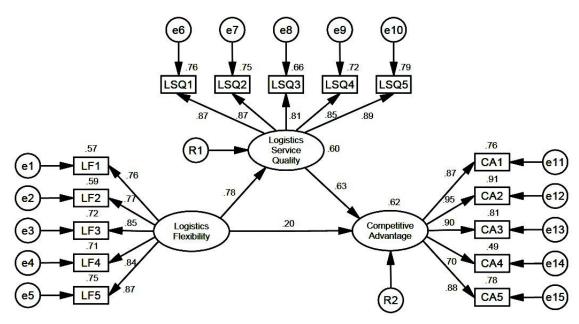


Figure 3: Measurement model of LF, LSQ on CA

The SEM model estimate of hypothesized model results showed that the model fit indices for this first-order model suggest a good fit with with empirical data is CMIN = 144.107, DF = 87, CMIN/DF = 1.656, CFI = .985, SRMR = .035, RMSEA = .048, PClose = .570, IFI = .985,

TLI = .982. This result was corroborated by the structural model, without the mediation of the LSQ, shown in *Figure 3*, whose structural coefficient, equal to .682, is considered as a strong and statistically significant correlation for (*p-value*<.001); reduced to .196 or .20 and statistically insignificant for (*p-value*>.001), whereas in the structural model, the LSQ was included as a mediating factor, as shown in *Figure 3*.

5) The analysis result of the direct effect and indirect effect of SEM models based on assumptions with empirical data.

Table 6: The analysis result of the direct effect and indirect effect of SEM models based on

assumptions with empirical data

Endogenous variable	$\mathbb{R}^2$	Effect	Extraneous variable LFC	Mediator effect LSQ
		direct effect	.776	.000
Logistics service quality	.603	indirect effect	.000	.000
		Total effect	.776	.000
		direct effect	.196	.627
Competitive advantage	.622	indirect effect	.487	.000
		Total effect	.682	.627

The researcher will explain separately of extraneous variable effect on an endogenous variable by sort to endogenous structural equation causal model followed this.

**SEM 1:** Which has logistics service quality (LSQ) is the dependent variable. The analysis results showed that the variation proportion of logistics service quality (LSQ) explained by logistics flexibility (LF) get 60.3% and get influence by the inclusion from logistics flexibility is .776 (DE<sub>LF--->LSQ</sub> = .776, p-value<.001).

**SEM 2:** Which has a competitive advantage (CA) is the dependent variable. The analysis results showed that the variation proportion of competitive advantage (CA) explained by logistics flexibility (LF) and logistics service quality (LSQ) get 62.2% and get influence by the inclusion from logistics flexibility is .627 (DE<sub>LSQ--->CA</sub> = .627, *p-value*<.001) and logistics flexibility (LF) by effect size is .622. But such influence is only indirect effect of logistics flexibility (LF) on transmission logistics service quali [ IE<sub>LF--->LSQ---->CA</sub> = .622, *p-value*<.001]

7.4) Hypothesis test

*Table 7: Summary of hypotheses and estimates.* 

Hypothesis	Paths	λ	β	S.E.	t-value	p-value	Results
$H_1$	LF>CA	.196	.255	.097	2.645	.008	Accepts
$H_2$	LF>LSQ	.776	.894	.065	13.671	.000	Accepts
H <sub>3</sub>	LSQ>CA	.627	.711	.086	8.220	.000	Accepts

Hypothesis result 1: The logistics flexibility has a positive influence on competitive advantage by an effect size of unstandardized estimates is .255 and an effect size of standardized estimates is .196. significant at .008 ( $\gamma_{LF, CA} = .196$ , SE = .097, *t-value* = 2.645, *p-value*>.001). In conclusion, The hypothesis accepts, and when logistics service providers increase the logistics flexibility goes up by 1 unit, achieved competitive advantage goes up by 0.196 units or 19.6%.

Hypothesis result 2: The logistics flexibility has a positive influence on logistics service quality by an effect size of unstandardized estimates is .894 and effect size of standardized estimates is .776, significant at .000 ( $\gamma_{LF, LSQ} = .776$ , SE = .065, *t-value* = 13.671, *p-value*<.001) In conclusion, The hypothesis accepts and when logistics service providers increase the logistics flexibility goes up by 1 unit, achieved logistics service quality goes up by 0.776 units or 77.6%.

Hypothesis result 3: The logistics service quality has a positive influence on competitive advantage by an effect size of unstandardized estimates is .711 and effect size of standardized estimates is .627 significant level at .000 ( $\beta_{LSQ,CA} = .627$ , SE = .086, *t-value* = 8.220, *p-value*<.001) In conclusion, The hypothesis accepts and when logistics service providers increase the logistics service quality goes up by 1 unit, achieved competitive advantage goes up by 0.627 or 62.7%.

#### **CONCLUSION AND DISCUSSIONS**

#### Conclusion

Previous studies suggest that logistics flexibility influences on logistics service quality and competitive advantage (Fornell et al., 1996; Zhang et al., 2003; Yu et al., 2017; Mentzer et al., 1989; Bienstock et al., 1997; Winter Fernandes et al., 2018; Christopher, 1999; Porter, 1985; Sigalas et al., 2013; Li and Dingti, 2019). However, the present study argues that such a view depends on the level of logistics service quality and customer satisfaction, loyalty, performance, and competitive advantage. Although logistics service quality theory supports the mediation effect of logistics service quality on the relationship between logistics flexibility and competitive advantage. Although the results of structural equation modeling reveal that both types of logistics flexibility are critical for maintaining logistics service user's relationships, their competitive advantage effects differ depending on the level of logistics service quality.

#### **Discussions**

Logistics flexibility has a positive influence on logistics service quality of logistics service users in the special economic zone, Lao PDR. The statistical significant at .008 (*p-value>.001*) and when considering the influence can be explained as follows: when logistics service providers increase the logistics flexibility 1 unit that toward logistics service user get logistics service quality up .196 or 19.6 units (Li and Dingti, 2019) and these authors pointed out that in the same direction such as Aggarwal (1997) and Jin et al., (2010). said that logistics flexibility has a positive influence on competitive advantage. Furthermore, the logistics flexibility influence on customer satisfaction (Guzman et al., 2017) and business strategy (Mejia, 2013)

Logistics flexibility has a positive influence on logistics service quality of logistics service users in the special economic zone, Lao PDR. The statistical significant at .000 (*p-value*<.001) and when considering the influence can be explained as follows: when logistics service providers increase the logistics flexibility 1 unit. that toward logistics service users get logistics service quality up .776 or 77.6% units (Jeketule Soko et al., 2016; Thai, 2013; Yu et al., 2017). Whereas, Simaei et al., (2006) point of view, supply chain flexibility influence logistics performance.

Logistics service quality has a positive influence on the competitive advantage of the logistics service users in the special economic zone, Lao PDR. The statistical significant at .000 (*p-value*<.001) and when considering the influence can be explained as follows: when logistics service providers increase the logistics service quality 1 unit that toward logistics service user gets competitive advantage up .6 2 7 or 62.7 units (Scriosteanu and Popescu, 2010). Whereas, many scholars who said that logistics service quality has a positive influence on customer satisfaction and customer loyalty (Kilibarda and Andrejić, 2012; Saura et al., 2008; Klimenko, 2017; Jie et al., 2013).

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# ANALYSIS OF THE CURRENT SITUATION AND PROBLEMS OF RURAL E-COMMERCE DEVELOPMENT

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#### **ABSTRACT**

In recent years, as a new economic development method, e-commerce has achieved rapid development in our cities and cities, but the development in rural villages has been slowing down, which has led to a growing gap between urban and rural areas in our country. Therefore, it is absolutely necessary to promote the development of e-commerce in our rural villages. This article addresses the current status of rural e-commerce and issues that exist in the development of rural e-commerce, and presents effective countermeasures to promote the further development of rural e-commerce in our country.

**Keyword:** Rural e-commerce, Development status, Application countermeasures

#### INTRODUCTION

#### 1.1 The Background of the study

In recent years, the Chinese government has not stopped investing in the construction of rural villages with information, and has not stopped raising the coverage rate of rural villages, so that more and more people in rural villages can access and use the interconnect network. When the residents of the country are also constantly improving their awareness of the interconnect network, In addition, the rural village has a ten-point wide market, so that electronic business in the rural areas with good development potential. At the same time, the electronic transactions entering rural villages can eliminate the difference between urban and rural areas from the root, and solve the problems of delayed sales caused by the deviation of geographical location and unprofitable traffic at a fixed distance, thus benefiting the sales of agricultural products. At the same time, the cost of renting shops and hiring staff has been reduced, and the income of residents has been increased to a certain extent. In the same way, the development of electronic commerce can attract the young people who work outside the rural areas to return home and return to their villages to create businesses, thus reducing the number of unemployed people in our country and benefiting social stability and development in a certain degree (Zou,2019).

#### 1.2 The Problem statement

In recent years, China's rural information construction shows amomentum of rapid progress, the role of network in agricultural production transactions is increasingly obvious. However, there are still some restricting factors in the promotion and application of rural e-commerce, mainly reflected in the following aspects.

## 1.2.1 rural network system is not sound, and farmers lack network knowledge

Information infrastructure is a prerequisite for online transactions and e-commerce. China's rural information infrastructure is generally poor.

According to the 42nd statistical report on Internet development in China released by China Internet network information center (CNNIC), as of June 30, 2018, China has 802 million Internet users, with a penetration rate of 57.7%, including 211 million rural Internet users, accounting for 26.3%, and 591 million urban Internet users, accounting for 73.7% (Liu,2015).

The number of rural netizens has been rising steadily, but there is still a gap between them and urban netizens. The vast majority of rural netizens only use computers to chat online or play games. In some remote areas there is no telephone, let alone Internet.

At the same time, rural netizens generally lack network knowledge, lack of network payment, e-commerce logistics and other key knowledge of e-commerce. This also constitutes an important obstacle to the development of rural e-commerce.

# 1.2.2 The logistics system is not perfect and the logistics distribution is not in place

China's vast territory, uneven distribution of population, backward transportation in some areas, logistics network has not yet formed, rurale-commerce in logistics distribution is a major problem.

At present, the distribution scope of most logistics companies in China has not been extended to rural areas, and some remote areas are excluded from the distribution area by logistics companies. In the absence of a sound logistics system, some rural areas even if there is a need to develop e-commerce is difficult to meet.

The lack of specialized agricultural transportation technology equipment, the backwardness of existing technology and equipment, the perishability and difficulty in preservation of fresh products, the lag of rural traffic conditions, and the dispersion of distribution points have had a direct impact on the development of rural e-commerce. Logistics is the pillar of e-commerce. To develop rural e-commerce, we must take measures such as perfecting rural logistics, strengthening logistics distribution and expanding distribution area to improve rural logistics system (Wang, 2019).

#### 1.3 Research question

As a new economic development method, e-commerce has achieved rapid development in our cities and towns, but its development in rural villages has been slowing down, resulting in a growing gap between urban and rural areas in our country. Therefore, it is absolutely necessary to promote the development of e-commerce in our rural villages. The question studied in this article is, what problems exist in the development of rural e-commerce?

#### 1.4 Research objectives

Aiming at the current situation of rural e-commerce and the problems existing in the development of rural e-commerce, we propose effective measures to promote the further development of rural e-commerce in our country.

## 1.5. The Significance of Research

With the improvement of the income level of rural residents in China, conditions have been created for the development of rural e-commerce. With the further support of Internet information technology, the development level of rural e-commerce has been increasingly improved.

First, it is conducive to promoting agricultural transformation and upgrading and improving the quality and level of agricultural development.

Second, it has a positive impact on promoting the integrated development of urban and rural areas and is conducive to accelerating the high-quality development of integrated urban and rural development.

Thirdly, it plays an important role in promoting the increase of farmers' income and narrowing the income gap (Han, 2019).

#### LITERATURE REVIEW

The development of network technology has promoted the application of the Internet in all areas of society. Government departments at all levels have paid more and more attention to the importance and urgency of developing e-commerce in rural areas. At the same time, in the network environment, what new problems are facing rural and agricultural development? Become a hot spot in academic research.

(1) Research on the role and necessity of rural e-commerce development. Chen Nenhua pointed out that rural e-commerce has played an active role in increasing rural employment, raising farmers' income, and solving the problem of difficult sales of agricultural products (Chen, 2013). Ye Xiumin pointed out that in the further development of society, rural e-commerce has made great contributions. In order to

achieve better development of rural e-commerce, Ye Xiumin also proposed new ways to solve the "three rural" issues and promote the transformation of rural development methods. It also promotes the implementation of China's "inclusive growth" policy (Ye, 2014). Niu Lili summarized the characteristics of e-commerce through analysis and research: low cost and intensive industry. The development of e-commerce in the county area is conducive to promoting the reform of the production and circulation methods of county enterprises, and at the same time, it will diversify the consumption modes of county residents, making it a county area. Provide momentum for further economic development (Niu, 2015).

- (2) Research on the elements of rural e-commerce development. Ling Shouxing chose Suzhou City, Suichang County and Qingyuan County as the research objects. By collecting data on rural e-commerce in these areas, he analyzed the formation and evolution mechanism of rural e-commerce industrial clusters, and pointed out that rural e-commerce industrial clusters show obvious life Cyclical characteristics, at different stages of development, are played by different factors, respectively. At the initial stage of development, a dual drive of geographical advantages and leading enterprises is required. During the growth stage, external economic, government support and social network unilateral factors are effective Support, in the mature stage, it needs the comprehensive promotion of multiple factors (Ling, 2015). Zhang Qianyi and others pointed out that China's coastal areas have a high level of economic development, which provides a good environment for the development of e-commerce. E-commerce is relatively developed, and there are more studies on e-commerce development in coastal areas. However, the economic development in the central and western regions is relatively slow, and the development of e-commerce is subject to subjective and objective factors. The mature models of developed countries cannot be copied in these regions. Based on the actual local conditions, it is necessary to explore a suitable rural e-commerce development model. The balanced development of business areas provides an entry point (Zhang, Yin, 2016).
- (3) Research on the development model of rural e-commerce. Through research on rural e-commerce, Yao Qingrong pointed out thatthere are mainly two development models for rural e-commerce in the emergence stage: top-down and bottom-up development models. The first model is established by government support and input, and is under the guidance of the government. The state provides funds, equipment, and technical support for the

development of e-commerce. The "Suichang Model" is a typical representative. The second model is driven by the market. Farmers independently establish and develop e-commerce with a clear market. "Sand Set Model" is a typical representative (Yao, 2016). At the same time, it also explores the path of sustainable development of rural e-commerce in our country, that is, the two models are highly integrated, forming a positive interaction between the government and the main body of the market. Yang Jing and others studied the challenges faced by rural e-commerce, and proposed that the development of rural e-commerce should be reformed and innovated on the model, and constructed through the cooperation of diverse farmers such as individual farmers, agricultural cooperatives, agricultural product sales and demand enterprises, and government departments. P2C2B model, P2G2B model and other rural e-commerce models (Yang, Liu, Wang, 2008).

(4) Research on strategies for optimizing the development of rural e-commerce. Yang Huiquan pointed out that the development of rural e-commerce is inseparable from the effective support of government policies. In addition, farmers' innovation and rural enterprise innovation are the fundamental driving forces for the development of rural e-commerce (Yang, 2014). Yang Jirui pointed out that in the face of the current predicament of agricultural economic development, it is necessary to reform the traditional agricultural development model, relyon the Internet to create an "Internet agriculture" development model, realize effective communication of information, change the current financing dilemma, and strengthen agricultural product production,

processing, and Internet technology The tight integration of logistics, distribution and other links to realize the development of agricultural network and promote the construction of agricultural informatization (Yang, Xue, Wang, 2016). Mu Yanhong and others analyzed the interrelationships between several factors affecting the development of rural e-commerce, and pointed out that the external environment is crucial to the development of rural e-commerce, which has affected the improvement of infrastructure and the skills of all parties involved And the perfect development of e-commerce platforms (Mu, Wang, Chi, 2016).

Xie Tiancheng et al. Summarized the shortcomings of China's rural e-commerce development through research, and put forward the basic concepts that rural e-commerce development needs to adhere to, namely innovation, coordination, greenness, openness and sharing. It also pointed out strategies to solve some problems faced in the current development process of rural e-commerce, namely, improving rural infrastructure construction, guiding and standardizing market entities' business activities, conducting comprehensive supervision and evaluation of demonstrations, and cooperating with financial structures to solve financial difficulties, etc. Equal% (Xie, Shi, 2016). Ding Minghua pointed out that we must solve the problems facing the development of rural e-commerce from the two aspects of hardware and software. The hardware aspect is to improve the infrastructure construction, establish a rural e-commerce platform, and strengthen the cultivation ofecommerce professionals. The software aspect actively creates rural e-commerce development. A good environment to cultivate farmers with a higher awareness of so that they fully realize the importance of developing e-commerce in rural areas. Other scholars have carried out special research on rural logistics systems (Ding, 2016). Wu Xiaozhao pointed out that a top-down logistics distribution system should be established in the countryside to achieve full coverage of cities, counties, towns and villages, and provide strong logistics support for the development of rural e-commerce. Fan Linbang pointed out that improving rural infrastructure is the fundamental way to solve the problem of logistics and distribution in rural e-commerce. High-grade highways are widely built in rural areas to ensure smooth transportation roads. In addition, it is necessary to cultivate diversified distribution entities to the countryside, and set up self-service service outlets in the countryside to fundamentally improve the efficiency of logistics distribution (Fan, 2016).

#### METHODOLOGY

Research Approach: This study uses a quantitative research method. Unit of Analysis:

In order to understand the real cognition of the rural masses and assist in the formulation of reasonable suggestions for China's e-commerce development path optimization, the study selected rural areas in 7 cities in Hebei Province: Baoding, Handan, Shijiazhuang, Cangzhou, Xingtai, Hengshui, Zhangjiakou.

#### Instrument and Data Collection:

By designing a questionnaire to understand the basic status of the development of rural e-commerce, the questionnaire was issued in the rural areas of Baoding, Handan, Shijiazhuang, Cangzhou, Xingtai, Hengshui, and Zhangjiakou. A questionnaire is attached to the study (see appendix).

#### Population and Sampling:

Considering that the purpose of the questionnaire is to survey the villagers' awareness of e-commerce in rural areas, the indicators of the questionnaire are divided into: basic information of the respondents, awareness of online shopping, local infrastructure conditions, awareness of e-commerce, and There are four aspects of attitude, each of which contains a series of specific issues.

A total of 430 questionnaires were distributed and 417 valid questionnaires were recovered, with an effective recovery rate of 96.98%.

#### Research settings:

The research setting was non-contrived, a field study approach was used, in a natural environment, data was collected.

#### Data Analysis:

Use SPSS, Excel and other data analysis tools to quantitatively analyze the background, characteristics, local basic conditions and attitudes of e-commerce respondents, and give objective analysis based on facts.

#### **DATA ANALYSIS**

#### 4.1 Regional distribution

As shown in Figure 1, the sample of the survey has the largest rural population in Baoding City, accounting for 22.5%, followed by Handan, Shijiazhuang, Cangzhou, Xingtai, and Hengshui. The sample percentage of Zhangjiakou is the smallest at 7.7%, which is basically in line with the 7 sample areas Of the actual rural population.

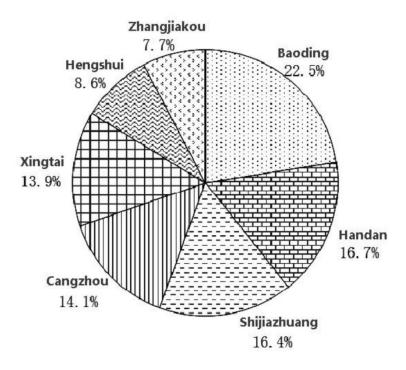


Figure 1 Distribution of sample areas

#### **4.2 Basic information statistics**

As shown in Table 1, among the effective questionnaires recovered in this survey, there were 197 men, accounting for 47.2%, and 220 women, accounting for 52.8%. From the perspective of age, because the samples of individual age groups are small, they are simply combined. Among them, the population under 30 years old accounts for 32.4% of the total sample, and the population between 31 and 50 years old accounts for the largest proportion, 64.3%, 51 years old Only 3.4% of the population

and above. From the perspective of work distribution, farming as the main work group accounts for half of the surveyed sample. Among the other samples, 20.9% of the population work outside, 13.4% are individual merchants, 10.3% are corporate employees, and 2.6% of the population Currently still in school, only 0.5% are national public officials, and the remaining 2.2% choose others. It can be seen from this that although a large number of rural people currently go out to work or work, their main source of income is still farming, and there are fewer individual businesses, which is not conducive to the development of rural e-commerce. From the perspective of education level, there are fewer people with college (including junior college) degree or above in all survey samples, so they are combined to be junior college degree or above. This part of the population accounts for 24.4%, and the proportion of people with high school education The largest is 39.6%, the junior high school education accounted for 22.5%, and the elementary school and below education accounted for 11.5%. It can be seen that due to the popularization of compulsory education, the education of the rural population has generally improved.

Respondents are not optimistic about the online shopping situation of the respondents. Of the 417 samples, 20.4% have never had online shopping experience, 63.5% of people make online purchases one to four times a month, and only 16.1% of people make online purchases of five Times and above, it can be seen that the overall online shopping frequency of the rural population is low, which is closely related to the weak rural infrastructure and the conservative shopping concept. For people who have experience in online shopping, more than 80% of people use mobile phones for online shopping, which shows that the rapid

popularization of smart phones makes online shopping more convenient. Especially for the living standards of the rural population, they rarely have the conditions to sit leisurely shopping in front of the computer, so the mobile phone they carry with them has become the first choice for online shopping.

For the question "Do you understand e-commerce", only 17.3% chose "understand", 39.6% only said "heard", and 43.2% said "don't understand", which shows that the rural population of Hebei Province The awareness of e-commerce is low.

Table 1 Sample basic information statistics

Item	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
Gender	1.53	2 (Female)	2 (Female)	0.50	1	2
Age	2.83	3 (30-40 years old)	3 (30-40 years o	0.73	2	6
Jobs	2.89	2	2	1.24	1	7
Education level	2.91	3 ( High school or	3	1.15	1	6
ieve.		technical secondary school)	_			
Online Shopping frequency	1.52	2 (2-4 times per month)	2 (2-4 times per month)	0.99	0*	3
Online shopping	1.02	1 (phone)	1 (phone)	0.79	0*	4
Tools E-Commerce	2.26	2	3	0.73	1	3
awareness		(heard) (	Don't understar	nd)		

Note: 0 \* means no online shopping experience

#### 4.3 Difficulties in developing e-commerce

For Q21 "What are the difficulties for e-commerce to enter the countryside", this item is set with 10 options. As shown in Figure 2, they are sorted according to the selection frequency from high to low. The main difficulties are: undeveloped logistics and transportation, and weak infrastructure; Rural people lack knowledge of networks and electronic equipment and cannot use them proficiently; computers and smartphones have a low penetration rate; they lack technology and talent; farmers are too scattered, and products cannot be mass-produced. From this, it is generally believed that the primary problem that hinders the development of rural e-commerce is still the logistics, network and other infrastructure issues.

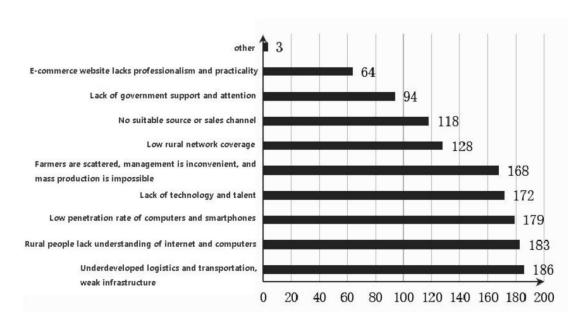


Figure 2 Difficulties in developing e-commerce

#### **CONCLUSION**

#### 5.1 Overall e-commerce awareness is low

The survey results show that at present, only 20% of villagers in the rural areas of Hebei Province understand e-commerce, and the overall level of awareness is still relatively low. Even 20% of people do not have online shopping experience. For those who have experience in online shopping, most of them are only When purchasing daily necessities, snacks, and clothes and hat products, the purchase rate of agricultural products such as grains and grains is basically below 15%, and there are problems such as low frequency of online shopping and narrow range of online shopping. It can be seen that the degree of development of the e-commerce consumer market in rural Hebei is still very low. At the same time, most of the rural population earn their living by farming, their educational level is generally not high, information is blocked, and their ability to receive new things is weak.

#### **5.2** Weak rural infrastructure

First of all, nearly 50% of the respondents believe that one of the main reasons hindering the development of rural e-commerce in Hebei is "undeveloped logistics and transportation". It can be seen that weak infrastructure is a relatively common problem in rural areas of Hebei Province. The agricultural products are basically fresh products, with high requirements for freshness preservation and short preservation period. To develop e-commerce for agricultural products, a mature logistics system is needed. However, it is clear that the current scope of express delivery radiation in Hebei Province is limited, and thetransportation between villages, towns, and counties cannot meet the requirements. There are still 80% of rural logistics to be improved.

Secondly, although the communication facilities in rural areas are gradually established, the effect is not satisfactory. Various factors such as poor network signals, poor network knowledge, and low penetration rate of electronic equipment restrict the development of e-commerce in rural areas, and even more than 10% There is no universal network in rural areas.(Zhou,2018)

# 5.3 Suggestions for promoting rural e-commerce development 5.3.1 Strengthen rural e-commerce knowledge training

Utilize various resources to support agriculture, such as Farmer's Bookstore, "Sannong" Technology Online Bookstore, and Agriculture-related Distance Education, etc., carry out e-commerce application education, introduce online shopping and sales examples, and guide and promote electronic-based activities in various agriculture-related activities Business practice and application of public welfare activities.

# 5.3.2 Strengthen infrastructure construction

The premise of developing rural e-commerce is to have a good transportation infrastructure and a perfect rural logistics system. Improve the coverage rate of rural roads, promote the construction of comprehensive transportation facilities in rural areas, improve the construction of rural logistics systems, increase the number of logistics stations, and open up the last mile of rural e-commerce to create a solid foundation for economic exchange between urban and rural areas. From the aspects of improving the refrigeration technology of agricultural products, rationally planning transportation routes, and training professional logistics talents, comprehensively enhance logistics transportation capabilities, improve logistics transportation efficiency, reduce logistics costs, and maximize the benefits. Ecommerce is a modern circulation method developed based on information technology and the Internet, which has a positive impact on production methods and lifestyles. Rural ecommerce is an emerging business model that has penetrated into the entire process of the rural industrial chain and changed the rural economic development mode and farmers' production and lifestyle in China. In recent years, the rapid development of e-commerce in rural areas in China has become one of the important driving forces for rural economic development. The development of rural e-commerce is conducive to the improvement of the quality of rural economic development, has a significant effect on improving the living conditions of farmers, and is also conducive to shrink The gap between urban and rural development narrows the gap between urban and rural incomes.

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# RESEARCH ON THE IMPACT OF HUMAN CAPITAL ON ENTREPRENEURIAL SUCCESS

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#### **ABSTRACT**

The impact of human capital and social capital of entrepreneurs on Entrepreneurship: human capital and social capital of entrepreneurs play an important role in the creation and growth of new enterprises. This paper discusses the human capital of entrepreneurs, education background, age, money and other factors, the composition and relationship of social capital, reviews and studies the impact of entrepreneurship, the impact of different stages of new enterprise creation and growth, summarizes the mechanism, and points out that in the process of entrepreneurship, the human capital of entrepreneurs, the impact of social capital on entrepreneurship, Continuously form the accumulation and appreciation of capital, and then promote or inhibit the growth performance of new enterprises. On this basis, based on the impact of human capital on entrepreneurship, the overall research framework of entrepreneurship process is proposed.

#### INTRODUCTION

#### 1.1 Research Background

Entrepreneurship is a source of power to promote economic growth, revitalize innovation, reduce employment pressure and maintain social stability.

An important career choice for happiness, satisfaction and achievement. Encourage entrepreneurship to promote employment and increase the number of entrepreneurs. The effective solution to the problem is to solve employment difficulties, promote the landing of scientific and technological achievements, and improve economic vitality.

#### 1.1.1 Mass innovation and entrepreneurship in China

"Mass entrepreneurship and innovation" came from Premier Li Keqiang's speech at the summer Davos Forum in September 2014. Li Keqiang proposed that a new wave of "mass entrepreneurship" and "grassroots entrepreneurship" should be launched on 9.6 million square kilometers of land, forming a new trend of "mass innovation" and "everyone innovation"

Chen Jining, mayor of Beijing, told the second meeting of the 15th people's Congress of Beijing about the incident of the authorities that Beijing should make every effort to build an international talent highland, experiment with the talent plan of young eagles, and focus on supporting the growth of a group of innovative and entrepreneurial talents under the age of 30.

#### 1.1.2.Innovation and Entrepreneurship

Innovation is the first driving force to lead development, the strategic support to build a modern economic system, and the necessary path to achieve high-quality development. The upsurge of mass entrepreneurship and innovation in China is constantly rising, showing the trend characteristics of focusing on the production field, deep integration of technological elements, more active transformation of achievements, close integration with industrial upgrading, and more perfect innovation and entrepreneurship ecology. Innovation and

entrepreneurship are more closely integrated with technological innovation, efficiency change, industrial upgrading and construction of modern economic system, so as to promote economic growth The improvement of labor productivity and total factor productivity provides strong support.

#### **1.2 Problem Statement**

Human capital accumulated through formal education, entrepreneurship education and training, and previous experience is the main resource for entrepreneurs.

Source is the key to a company's sustainable competitive advantage. (4) Helping to develop entrepreneurial opportunities, developing entrepreneurial capabilities, and responding to the impact of challenging environmental uncertainties play an important role in promoting entrepreneurial success. (5) Entrepreneurial capabilities help Entrepreneurs develop entrepreneurial opportunities and win entrepreneurial success. (3) The entrepreneurial success model under uncertainty adjustment can verify its certainty, that is, the dynamic and hostile nature of the moderating role between entrepreneurial opportunity development and entrepreneurial success, and entrepreneurial ability and entrepreneurial success.

# 1.2.1 The process mechanism of migrant workers' entrepreneurial growth in the context of China

In the traditional impression, migrant workers are "urban fringe". Faced with the similar social environment, the artificial barriers and institutional barriers from the outside world make it difficult for migrant workers to integrate into the urban mainstream society. Faced with "sense of deprivation", "sense of alienation", "low self-identity" and "sense of loneliness", from going out to returning home, from returning home to returning to the city, migrant workers are constantly wandering and swinging between the urban and rural areas. This employment mode of migrant workers is also known as a typical "pendulum" employment by the academic community

The study of migrant workers' entrepreneurship is a unique phenomenon in China. The understanding of migrant workers' entrepreneurship research can not simply add a restrictive word "migrant workers" before entrepreneurship. There should be its uniqueness in the entrepreneurial research of typical migrant workers in China. In foreign countries, there is no title of "migrant workers" or "migrant workers". The word migrant workers first appeared in the social science communication in 1984. In the academic circles, there is no clear and accepted definition of the concept of migrant workers so far. Commonly defined as: household registration status or farmers, contracted land, However, the rural labor force that is mainly engaged in non-agricultural industries, the main source of income is wage, the increasing number of college graduates, and the unemployed caused by the adjustment of industrial structure bring huge employment pressure to the society. The essence of the entrepreneurial process of college students is to perceive and identify opportunities, seize opportunities The process of risk-taking and value creation includes the stage of entrepreneurial attempt, initial stage, growth stage and mature stage. Psychological capital, human capital and social capital have an important influence on the success of College Students' entrepreneurship. It emphasizes that the psychological capital driven by "who am I" is the key factor of College Students' entrepreneurial success, that the human capital of "what I know" is the basic factor of College Students' entrepreneurial success, and that "knowledge" is the key factor of College Students' entrepreneurial success The social capital of "who" is the guarantee factor for the success of College Students' entrepreneurship.

#### 1.3 The significance of research

This article promotes the fusion of human capital theory and entrepreneurial theory research. In most previous studies, (6) entrepreneurial experience is a dimension directly related to entrepreneurship and is covered by the Institute of Entrepreneur Human Capital Structure. Entrepreneurship Education On the other hand, training is directly related to entrepreneurship, (7) and through empirical analysis, it greatly affects the success of entrepreneurship. As a result, the application of human capital in entrepreneurship research has been expanded: (8) On the other hand, through data Analysis proves that entrepreneurial education and training experience is an important way to increase the human capital stock of entrepreneurs. In addition, (9) entrepreneurial education and training is strongly supported by human capital theory, which helps promote entrepreneurs' success. Its superior The status has been verified, therefore, it helps to eliminate (10) scholars' prejudice against entrepreneurship education and development. Training research is, to a certain extent, very important. It helps promote entrepreneurship education and training in dilemmas beyond research. To promote the establishment of legal research status in entrepreneurship education and training. (11)

This study enriches the relevant research on entrepreneurial success from the perspective of opportunity and ability, constructs the integration model between entrepreneurial human capital and entrepreneurial success, and further deepens the research on the relationship between entrepreneurial human capital and entrepreneurial success. First, it clarifies the operational definition of entrepreneurial success construct, further improves the measurement of entrepreneurial success construct, opens a new perspective of research on entrepreneurial success construct, and deepens the empirical research on entrepreneurial success construct. In addition, it provides a basis for judging entrepreneurial success for new ventures and entrepreneurs. Secondly, it expands the research path of entrepreneurial success, deepens the understanding of the internal mechanism of entrepreneurial success by human capital of entrepreneurs. From the perspective of opportunity and ability, it puts forward the dual intermediary and dual path conceptual models of entrepreneurial human capital -Entrepreneurial Opportunity Development - entrepreneurial success, and entrepreneurial human capital - Entrepreneurial ability - entrepreneurial success, It enriches the research on the antecedent variables of entrepreneurial success, and to some extent answers the question of how human capital of entrepreneurs affects entrepreneurial success. Third, it reveals the important role of entrepreneurship education and training as an important measurement dimension of human capital of entrepreneurs in influencing successful entrepreneurship, which provides a full practical basis for attaching importance to entrepreneurship education. Fourth, we have integrated and constructed the entrepreneurial success model under the regulation of environmental uncertainty, and established the important contingency role of environment in influencing successful entrepreneurship by verifying the regulatory role of environmental uncertainty, namely, dynamics and hostility in entrepreneurial opportunity development and entrepreneurial success, as well as between entrepreneurial ability and entrepreneurial success, It can also be used for reference for new enterprises to deal with environmental uncertainty.

#### 2.1 Theoretical basis

Entrepreneurship is the process by which entrepreneurs use their human resources to identify and develop opportunities, and use their ability to integrate resources to create innovative companies and sustain their growth for profit.

Entrepreneurship is doing new things or doing things in new ways. Entrepreneurship is the process of establishing an innovative economic organization (or network of organizations) to profit or grow under conditions of risk and uncertainty. Entrepreneurship refers to the introduction of a new economy Activities, including bringing innovation to the

market and acting as new imitating competitors. Entrepreneurship is the process by which entrepreneurs discover ideas, seize business opportunities, form teams, acquire resources, provide consumers with products and services, and create value and wealth.

From the perspective of semantics, the concept of human capital includes two concepts of human and capital. From the perspective of economics, capital refers to the factors of production used to create products or services, and there is no obvious in the production process itself Consumption and capital concept. In terms of economics,

human is the main body responsible for economic activities such as production, consumption and trading, so human capital can be understood as one of the factors of production that can generate additional value through investment. Since the 1960s The Chicago scholar since it was formally proposed by Schultz and Becker, it has received extensive attention in the field of economics and management. The concept of human capital was first clearly presented to people through education, training, immigration, etc. Capital experience knowledge, ability to invest for the purpose And healthy forms condensed on workers. Human capital is defined as skills and knowledge. Individuals gain through investment in education, vocational training and other types of experience Development organizations define human capital as knowledge, abilities, skills, and other attributes that can create personal, social, and economic wealth. Human capital can be understood as: the health, experience, and motivational resources contained in society; the characteristics of population resources in society (age Structure and health) and competencies (usually related to education and professional competencies); cooperative abilities, creativity, attitudes, and internal work motivations. The New Palgrave Dictionary of Economics defines human capital as "manpower", which stands for The reserve of skills and production knowledge. Human capital is defined as the collection of innate capabilities, knowledge and skills acquired and developed within an enterprise.

Personal life. Understanding human capital as a form of intellectual capital is reflected in the individual's mind, body (14) With the deepening of human capital research, the definition of human capital has been expanded to include not only knowledge or skills, but also individuals Features and attitudes, such as: reliability, honesty, independence and accountability.

Therefore, the concept of entrepreneurial human capital can be summarized as entrepreneurial-related knowledge and skills accumulated through education and past experience.

#### 2.2 Variable relationship

Entrepreneurial success (15) is a multi-dimensional structure, and scholars have not yet unified their definitions of measurement dimensions, and they are more complex, which has hindered empirical research on the construction of entrepreneurial success to a certain extent. This research is based on previous career success Research. This perspective extends the connotation of entrepreneurial success to include

Improving the performance of new businesses also includes personal professional success, as entrepreneurial businesses can easily expand entrepreneurs.

The success of an entrepreneurial enterprise can bring satisfaction and social status to the entrepreneur. Therefore, this study defines the dimensions of the entrepreneurial success measurement as including the performance of the new enterprise and the success of the entrepreneurial career. It measures from an organizational and individual perspective The concept of organizational success lays the theory and evidence for future entrepreneurs to succeed and become entrepreneurs.

Results. Basic knowledge. In fact, the human capital of entrepreneurs is mainly divided into two dimensions.

There are three main aspects: First, human capital investment and human capital results. In theory, knowledge and skills are the result of human capital investment, such as education and work experience, so most studies use education and work experience as a measurement. Indicators of the human capital structure of entrepreneurs. Secondly, based on task relevance, the dimensions of entrepreneur human capital are divided into task-related human capital (e.g., management experience), entrepreneur experience, industry experience, entrepreneur knowledge, and task Unrelated human capital

(E.g., formal education, work (experience)), where task relevance refers to the task that the entrepreneur is currently completing, and task independence means that the task that the taskist must currently complete is irrelevant. Third, general human capital And special human capital, general human capital is not directly related to specific tasks, but can play a role in the company's daily operations. Special human capital in the context of entrepreneurs refers to the knowledge and skills directly related to the tasks of entrepreneurs.

General human capital is not directly related to specific tasks, but can play a role in the daily operations of the company; special human capital in the context of entrepreneurs refers to the knowledge and skills directly related to the tasks of entrepreneurs.

Entrepreneurs' human capital research is relatively extensive. For example, Japanese scholar Kato et al. C 2015) When studying the impact of entrepreneurs' human capital on the innovation of Japanese high-tech companies, the dimensions of entrepreneurs' human capital are divided into ordinary human capital Formal education, entrepreneurial experience in related industries and management experience before entrepreneurship, of which formal education is divided into two categories, namely, undergraduate education and graduate education. Special human capital includes experience related to innovation, and The experience of patent applications is measured by dummy variables. Scholar Omri et al. (2015) also used the division of general human capital and special human capital when measuring the impact of entrepreneurs' human capital on entrepreneur success. General human capital includes Special human capital, including education, includes entrepreneur training, previous management experience, and previous industry experience, using dummy variables to measure empirical variables, and using ordered scale classification and evaluation to evaluate educational variables. The author's failure is based on German Depending on the actual situation in Germany, human capital operates in the context, and the level of education depends on the level of general education and the characteristics of Measurement of special human capital, including industry-related experience, previous entrepreneurial experience, management experience and entrepreneurial parents.

#### **METHODOLOGY**

#### 3.1 Research design

This article makes an in-depth study of the concept of entrepreneurial success, explores how the human capital accumulated by entrepreneurs through past knowledge and experience can help entrepreneurs succeed, and focuses on the analysis of the intermediaries that affect the relationship between entrepreneurs and people Variables and adjustment variables. Capital and entrepreneurial success. Therefore, this article introduces the two mediating variables of entrepreneurial opportunity development and entrepreneurial ability, and explores the internal transformation mechanism of entrepreneurial human capital and entrepreneurial success from the perspective of opportunity and ability. In addition, according to contingency theory, new enterprises do not exist independently of the environment and need to bear the uncertainty of the environment. Therefore, environmental uncertainty is used as a moderating variable to regulate the relationship between entrepreneurial opportunity

development and entrepreneurial success, and The relationship between entrepreneurial ability and entrepreneurial success, thereby integrating the study of entrepreneurial human capital on entrepreneurial success through entrepreneurial opportunities, the impact of development and entrepreneurial ability.

# 3.1.1 Descriptive analysis

Descriptive analysis

Frequency analysis is used to calculate the selection frequency and proportion of certain data (such as gender, data representing categories). Frequency analysis is commonly used in the statistics of basic background information of samples, as well as the analysis of sample characteristics and basic attitudes.

Descriptive analysis is the first step of the statistical analysis of social survey. A large number of data obtained from the survey are preliminarily sorted out and summarized in order to find out the internal laws of these data - concentration trend and dispersion trend. It mainly uses the statistics represented by various data, such as mean, percentage, etc., to carry out single factor analysis.

Only the percentage or average difference can not fully reflect the nature of objective things, and it is not enough to analyze a sample. Whether this sample can reflect the overall characteristics of the population, we need to make inferential analysis.

## 3.1.2 Chi square analysis

Chi square test is the deviation degree between the actual observation value and the theoretical inference value of statistical samples. The deviation degree between the actual observation value and the theoretical inference value determines the chi square value.

Chi square test is a widely used hypothesis test method, which is used in the statistical inference of classification data, including: Chi square test for comparison of two rates or two constituent ratios; chi square test for comparison of multiple rates or multiple constituent ratios and correlation analysis of classification data.

Chi square test is the deviation degree between the actual observation value and the theoretical inference value of the statistical sample. The deviation degree between the actual observation value and the theoretical inference value determines the size of the chi square value. The larger the chi square value is, the more inconsistent it is; the smaller the chi square value is, the smaller the deviation is, the more consistent it is. If the two values are completely equal, the chi square value is 0, indicating that the theoretical value is fully consistent.

#### 3.2 Regulations for environmental uncertainty

1. The role of environmental uncertainty in regulating the relationship between entrepreneurial opportunity development and entrepreneurial success

Entrepreneurial opportunity development is the activity and result of an entrepreneur's comprehensive assessment of the internal and external environment, which is affected by situation factors. The degree of impact on startups restricted by "small but weak" and "new weak" is foreseeable.

For incremental innovation opportunities, environmental dynamics may play a negative role in the relationship between opportunity development and entrepreneurial success. In low-level environments, technology updates are slow and consumer demand preferences are also very slow. Easy to predict. Companies improve their existing products and services, improve their existing marketing methods, and quickly adapt to environmental changes to achieve development. In a more stable environment, companies can use various channels to focus on entrepreneurial opportunities and promote entrepreneurship Success, effectively integrate resources to develop entrepreneurial opportunities, and provide products

or services that meet market needs. In a highly dynamic environment, consumer preferences are unstable and unpredictable. Benefits of suppliers, technology, and customers who communicate with the enterprise Stakeholders will also undergo unpredictable changes, which will require companies to spend more to develop opportunities. In addition, due to the turbulent environment and fierce competition, the innovation speed of new companies developing incremental innovation opportunities will increase. Very It is not easy to keep up with the speed of market changes, the technology is changing with each passing day, and consumer preferences are also changing. It is difficult for products and services to meet market demand, resulting in a shrinking market share and the risk of being eliminated. Therefore, the higher the dynamic environment for increasing innovation opportunities, the weaker the impact of opportunity development on entrepreneurial success.

(2) Moderating effect of environmental uncertainty on the relationship between entrepreneurial ability and entrepreneurial success

From the perspective of evolution, organizational survival is the process of improving competitiveness to adapt to a changing environment. Through empirical research, it can be argued that facing highly dynamic and adverse environmental impacts, entrepreneurs with higher entrepreneurial capabilities will Competitors with lower entrepreneurial capabilities achieve higher success rates because entrepreneurs can minimize the negative impact of the environment by: Opportunity-related capabilities and strategic management-related capabilities. This view is also consistent with scholars.

It is believed that the business environment in the entrepreneurial environment plays a positive regulating role between entrepreneurial capabilities and corporate performance. A dynamic and hostile environment requires entrepreneurs to rapidly change their market management capabilities. It is believed that entrepreneurs need to obtain The ability to survive in the environment. It is also believed that environmental uncertainty is a basic feature of the business environment in which new businesses do business. Entrepreneurs can only cope with increasing environmental uncertainty by improving their entrepreneurial capabilities. From the perspective of contingency theory It seems that the behavior of entrepreneurs reflects the capabilities of entrepreneurs, and the capabilities of entrepreneurs need to match the environment. According to the concept of strategic fit in the context of entrepreneurial capabilities, entrepreneurs should be able to cope with uncertain environments. According to research, with the With the increase of social and economic dynamics and hostility, the ability to take risks and discover opportunities will gradually increase. In addition, in the face of dynamic and hostile environments, creativity will continue to increase, which can enable entrepreneurs to overcome resource constraints and promote entrepreneurship Respond to environmental uncertainty and increase the success rate of entrepreneurs.

# 3.3 Research on Sampling Methods

As for the questionnaire survey channels, as the survey object of this article is the entrepreneurs of startups, in order to ensure the reliability of the research conclusions, the samples were distributed to entrepreneurs. Other survey channels mainly include: First, use the social network of relatives and friends to issue questionnaire Specifically, use the People's Bank of China, commercial banks, securities companies, general education institutions, and entrepreneurship education and training institutions where relatives and friends are located to assist in issuing questionnaires. Second, when distributing questionnaires through social network relationships, electronic copies of the questionnaire require businesses They send it to their other entrepreneurs who are familiar with them in the form of "snowball" through their respective networks and return calls by phone. Entrepreneurs who agree to release the questionnaire.

#### 3.4 Questionnaire design process

First, a preliminary draft of the questionnaire was designed. After preliminary interview preparation, this article preliminary verified the relationship between the main variables of this study in the practice of entrepreneurs. The source of the questionnaire items and options came from the overall study of authoritative scholars in this research direction. The questionnaires from the above sources were modified, mainly in terms of descriptive words, to facilitate the successful completion of subsequent questionnaires.

Secondly, through the consultation of mentors and industry entrepreneur training experts, this article continues to improve the revision of the questionnaire, thereby further improving the overall quality of the questionnaire.

Third, preliminary research. To ensure the recovery rate, effective recovery rate and questionnaire situation.

At the same time, the reliability and validity of the questionnaire were comprehensively evaluated, and the empirical results were preliminarily verified. The research hypothesis, this article conducted an exploratory pre-investigation.

In the pre-survey process, due to personal social network and personal spending restrictions, this article selects schools, hometowns and provinces where relatives and friends are located for small-scale surveys. To ensure the sample is representative, it covers the manufacturing, education, accommodation and catering industries, Traditional industries such as wholesale and retail, and high-tech industries such as scientific research and technical services; in order to ensure a balanced sample distribution, they cover coastal and inland areas as much as possible. After conducting a pre-survey, evaluate various aspects of the indicators in conjunction with the survey form We will consult with mentors, entrepreneurship training experts, and relevant entrepreneurs or partners for the ultimate improvement work, and finally form a formal questionnaire.

#### **RESULTS**

#### 4.1 Descriptive statistics

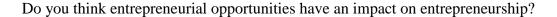
Descriptive statistical analysis of the questionnaire variables is used to test the distribution and dispersion of the data, and then to determine the rationality of the indicators of the questionnaire scale. Descriptive statistical analysis can be used to initially understand the distribution of the samples.

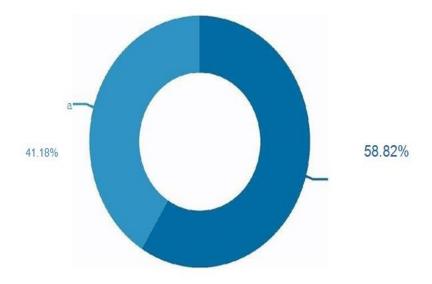
This step is also the basis for subsequent regression analysis. This article focuses on the frequency, occupation, and other eight variables, such as gender, age, business hours, regional distribution, business size, business industry, entrepreneurial motivation, and parental entrepreneurial background. Ratio and cumulative percentage. Three simple descriptive statistical analyses. The statistical characteristics such as mean, standard deviation, skewness, and kurtosis are mainly used to characterize the independent, mediating, regulating, and dependent variables of this article.

## 4.2 Positional statistical analysis

A total of 17 questionnaires were collected through electronic questionnaires, 10 females and 7 males, divided by age, 5 people from 41 to 50 years old, 4 people from 51 to 60 years old, 3 people from 61 years old and above, 2 people from 18 to 24 years old, 2 from 31 to 40 years old, 1 from 25 to 30 years old, 0 from 18 years old, according to the academic qualifications, 6 college graduates, 5 graduate students and above, 3 college students, high school / secondary school / technical school 2 Person, primary school and below 1 person, junior high school 0 person. Do you think money is a factor considered in human capital for entrepreneurship, a is 70.59% b is not 29.41%, what do you think is human capital 35.14% b

Insights of entrepreneurs 35.14% a 29.73% of formal education practice training, do you think that entrepreneurial human capital is connected with entrepreneurial growth? Answer option response situation a has 9 people connected, b does not contact 8 people, do you think entrepreneurship opportunities Does it have an impact on entrepreneurship? The answer option response case b does not affect 58.82% a. It affects 41.18%. How long do you think a startup can hold the answer option response situation b6-8 years 70.59% a1-5 years 29.41%.





#### 4.3 hypothetical test

The data processing and analysis in the above sections support the empirical links in this section. The purpose of this section is to construct a measurement model to test the previous research hypotheses. In addition, in addition to the existing dependent variables, independent variables, intermediate variables, and moderator This article draws on relevant theoretical studies, and selects seven variables, such as the entrepreneur's gender, age, social capital, entrepreneurial motivation, parents' entrepreneurial background, the industry to which the enterprise belongs, and the size of the enterprise, as control variables.

The test of the effect of entrepreneur human capital on entrepreneurial success

The impact of entrepreneurial human capital on entrepreneurial success. Among them, the independent variable is entrepreneurial human capital, which is measured by the four subdimensions of the entrepreneur's formal education level, entrepreneurial education and training experience, industry experience, and entrepreneurial experience. The dependent variable is Startup success, other variables are control variables.

Descriptive analysis

Frequency analysis is used to calculate the number and proportion of selected data (e.g. gender, numbers representing categories). Frequency analysis is often used in the statistics of sample basic background information, as well as sample characteristics and basic attitude situation analysis.

Features		Frequency	Percentage	Effective percentage	Cumulative percentage
Candan	Male	16	53.3	53.3	53.3
Gender	Female	14	46.7	46.7	100
	Under 18	5	16.7	16.7	16.7
	18-24	3	10	10	26.7
	25-30	7	23.3	23.3	50
Age	31-40	6	20	20	70
	41-50	4	13.3	13.3	83.3
	51-60	3	10	10	93.3
	61+	2	6.7	6.7	100
	Junior secondary	1	3.3	3.3	3.3
	Secondary/secondary/technical schools	1	3.3	3.3	6.7
Highest	College	1	3.3	3.3	10
degree	University undergraduate	15	50	50	60
	Master degree or above	12	40	40	100
	Total	30	100	100	

The survey collected 30 data and 30 valid data, with an effective rate of 100%. As can be seen from the table above, at the gender level, there is a basic gender balance. At the age level, there are 5 persons under 18 years of age, accounting for 16.7 per cent ,3 persons under 18-24 years of age ,10 per cent ,7 persons between 25-30 years of age ,23.3 per cent ,6 persons between 31-40 years of age ,20 per cent ,4 persons between 41-50 years of age ,13.3 per cent ,3 persons between 51-60 years of age ,10 per cent ,2 persons over 61 years of age and 6 years of age. At the academic level, there are 15 undergraduate students, accounting for 50 per cent of the total ,12 graduate students and above, accounting for 40 per cent, and only 3 under undergraduate education, accounting for 10 per cent.

Chi-square analysis

Whether money is a factor of entrepreneurial human capital considerations\* Whether entrepreneurial opportunities have an impact on entrepreneurship cross-table

		Whether ent opportunities affect	Total		
			Impact	No impact	
		Counting	13	5	18
Whether money is a	Vas	Percentage of money considered as a factor of entrepreneurial human capital	72.2%	27.8%	100.0%
consideration Yes of entrepreneuri al human	Percentage of entrepreneurial opportunities affecting entrepreneurship	86.7%	33.3%	60.0%	
capital		Percentage of total	43.3%	16.7%	60.0%
	No	Counting	2	10	12

		Percentage of money considered as a factor of entrepreneurial human capital	16.7%	83.3%	100.0%
		Percentage of entrepreneurial opportunities affecting entrepreneurship	13.3%	66.7%	40.0%
		Percentage of total	6.7%	33.3%	40.0%
Total		Counting	15	15	30
		Percentage of money considered as a factor of entrepreneurial human capital	50.0%	50.0%	100.0%
		Percentage of entrepreneurial opportunities affecting entrepreneurship	100.0%	100.0%	100.0%
		Percentage of total	50.0%	50.0%	100.0%

Chi-square test

	Value	Degree of freedom	Progressive significance (bilateral)	Precise significance (bilateral)	Precise significance (unilateral)
Pearson Chi Chi	a 8.889	1	.003		
Continuity Amendment b	6.806	1	.009		
Likelihood ratio	9.505	1	.002		
Fisher exact test				.008	.004
Linear correlation	8.593	1	.003		
Number of valid cases	30				

expected count of a.0 cells (0.0%) is less than 5. the minimum expected count is 6.00. b. calculate only for x2 2 tables

The chi-square value of whether money is a factor of entrepreneurial human capital consideration and whether entrepreneurial opportunity has an effect on entrepreneurship is 8.889, and the probability value of significant level p=0.003<0.05, reaching a significant level of 0.05.

#### **CONCLUSION**

This study focuses on the impact of entrepreneurial individual characteristics on entrepreneurial success, analyzes the relationship between entrepreneurial human capital and entrepreneurial success at the individual level, discusses the mediating effects of entrepreneurial opportunity development and entrepreneurial ability in the relationship between them, and the adjustment of environmental uncertainty Mechanism. By constructing a conceptual model, the mechanism of entrepreneurial human capital affecting entrepreneurial success is analyzed, and the study draws the following conclusions:

Entrepreneurs' human capital has a significant positive impact on entrepreneurial success The regression results show that there is a significant positive relationship between

entrepreneurial human capital and entrepreneurial success, and the four dimensions of entrepreneurial human capital-formal education level, entrepreneurial education and training experience, industry experience, and entrepreneurial experience all have a bearing on entrepreneurial success. Significant positive impact, human capital of entrepreneurs including education, experience, knowledge and skills has long been considered as a key resource for the success of entrepreneurial enterprises (the impact of entrepreneurial human capital on entrepreneurial success is mainly reflected in the profitability of startups And growth aspects, as well as individual satisfaction with career growth and social status. The higher the level of entrepreneurial human capital, the higher the success rate of entrepreneurship. The significance is in turn: entrepreneurial education and training experience, entrepreneurial experience, formal education level, and According to industry experience, this result shows that the different dimensions of entrepreneurial human capital and the relationship between entrepreneurial success are significantly different. For entrepreneurs, if they want to start a successful business, they need to pay attention to the accumulation of human capital, which provides an effective way for successful entrepreneurship.

Limitations of findings

Entrepreneurs' educational background and unique previous experience can enhance their human capital level and lead the company to success.

Based on this, this research integrates and constructs the concept system of "Entrepreneurs' Human Capital-Success in Entrepreneurship", and introduces entrepreneurial opportunity development and entrepreneurial capabilities as a dual intermediary path, and introduces the contingency effect of environmental uncertainty as a resource for new venture organizations. The internal mechanism of how the entrepreneurs of the main source can use their accumulated human capital to improve the organization and the probability of individual success at the same time.

The sample data for empirical research needs to be further improved.

Due to the limitation of time and experience, the survey sample data of this study is data collected by questionnaires, and the data can only reflect the characteristics of a variable at a certain point in time, and cannot reflect the dynamic changes of the variables like vertical data. Future research can consider the use of vertical samples Data, more objective measurement and comparison of variables; then, sample data is collected by each entrepreneur personally answering. Although this method is more common in management research, it may be unavoidable to some extent. The subjective attitude of the respondents, the data may not fully objectively reflect the current situation of the enterprise, and the applicability of the data is limited. The samples were collected and covered the coastal and inland areas, but no comparative study was conducted. Due to the vast area and the level of economic development It is uneven and there are differences between regions. Based on this, we can continue to expand the sample size and compare the characteristics of variables in coastal and inland regions in order to make the research more valuable and representative.

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# RESEARCH ON THE PRESENT SITUATION AND INNOVTION MANAGEMENT OF TENCENT VIDEO MARKETING IN NEW MEDIA ENIRONMENT

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#### **ABSTRACT**

#### 1. Tencent video marketing model

The commercialization of Tencent Video mainly relies on the user's UV (UniqueVisitor, independent IP traffic) and the content's VV (VideoView, video playback times), because the current charge for online advertising is still based on the "how many people saw the ad" Standard. The number of video plays determines the CPM (cost per thousand people) of the content, and this CPM constitutes the main unit of measurement for online advertising sales. Generally, mainstream video sites have wide content and many categories, and the total amount of UV and VV is large. However, due to the different levels of content preference, the amount of UV and VV is very unevenly distributed, so how to play more videos (large CPM) The scientific sale of the content is the main content of the "project pre-sale stage".

In the commercialization system of video, the basis of the whole process is to first estimate the cost of the content, then formulate a sales policy based on the estimated cost (content level), and finally sell it through online and offline joint promotion.

It can be seen that the "project pre-sale stage" is the first step on the basis of cost estimation and the most important part, which directly affects the potential business opportunities of the project and the final monetization effect. Through the purchase of copyright to control external rights and interests, determine the content level (usually divided into B level, A level, S level and S+ and other levels) and then carry out preliminary integration of resources. Usually the content above level A will be sold in a single key, and the pre-sale content can include all online and offline marketing models.

The main marketing models of online video are roughly divided into: patch model, implant model, title model, etc. Among them, copyright resources are mainly based on online cooperation, and production resources can include content implantation mode and offline promotion.

#### 1.1 Hard and wide mode

Hard advertising, also known as "hard advertising", is a type of explicit advertising that refers to the traditional form of advertising that directly introduces the content of goods and services. The pure form of advertisements used to promote products in the four traditional media such as newspapers, magazines, and television broadcasts is Hard Broadcast. In Tencent Video, Hard Broadcast generally refers to the display of advertisements in the video playback frame. TVC (TV commercials) The main content is supplemented by floating ads such as corner marks and suspension. In the Tencent video, the hard and wide part is also called the patch advertisement-that is, in the early stage of the video's main content (pre-roll or pre-roll), mid-term (intermediate, pause or corner) or late (post-position (Picture) appears in a play box advertisement display method, this is the main means of Tencent video profit. Patch advertisements are charged in units of CPM (Cost per Thousand People), usually 15s as

the basic duration, which is basically similar to TV advertisements, and has a variety of display formats, including both traditional video advertisements and flash advertisements. However, more advertisers tend to direct TVC content to reach the widest audience.

At present, the hard and broad cooperation model can be roughly divided into general investment and targeted investment. Universal investment is the delivery of the whole platform, and targeted delivery is the specific content, specific placement location, user region, user on-demand time, and even user group specified by the advertiser. The latter is an optimization of the former form of delivery, and the unit price of the patch is higher, but its form of delivery is more able to ensure the delivery effect of advertisers, so it is also increasingly favored by advertisers. With the further development of the video industry, these two models may be further derived from more innovative changes.

#### 1.2 Implant mode

In recent years, more and more advertisements have been presented in front of the audience, especially TV series and variety shows in video content. According to everyone's most common understanding, the placement of advertisements usually appears in the TV series or variety content that is being played, that is, the marketing model of the advertiser and the copyright party in the early stage of the content shooting. However, with the continuous development of technology in the video industry and the urgent need for commercialization in the video industry, the implantation model that exists on video sharing sites is gradually derived [15].

In the relevant implantation model of Tencent Video, in addition to self-made content for props and scene implantation of advertisers, the most typical is the sale of "interactive resources". "Interactive resources" include: "watch while buying", "watch while playing", "picture barrage", "marquee" and "shaped progress bar" appearing in the video playback box on the PC side (see Figure 1); H5 interactive special page on the mobile terminal, etc.



Figure 2-1 Tencent video interactive implant model "watch and buy"

This embedding model that directly reflects the customer's brand in the process of the video broadcaster allows users to directly participate in the entire marketing process. The user can choose the advertising brand according to personal preferences. One can turn off to obtain the purchase link, and the user experience is relatively moderate. The way to insert SMD ads is much higher. The reason why the marketing method can play a very good effect is that on the one hand, the user is in a high concentration when watching the movie, and this

focus will also be transferred to the product; on the other hand, once the target consumer is found, it can be quickly locked, And directly point to the purchase link. At the same time, it is supplemented with traditional forms such as patch advertisements and suspended advertisements to carry out integrated communication and further strengthen the brand image.

#### 1.3 Title mode

The marketing model of title cooperation is derived from the traditional TV title and offline event title. The video website promotes the target (bright spot) content through targeted investment promotion work to increase business income, and then the advertisers according to their brand appeals To select the most suitable content, and use the video to promote the content of the brand to enhance the social awareness of their brand.

The content titles of Tencent Video are usually promoted to advertisers by means of "rights + resources". In the sale of resources, the general chief has the highest title price and the best resource position, and the joint sponsorship or special support reduces the amount of resources, followed by the position. In addition, Tencent Video has newly created a "mouth broadcast" resource in the pre-patch resources, which is added to the first or total crown cooperation mode, that is, there is a 5-second voice title before the start of the patch is played. The video content with large content and large number of viewers is favored by advertisers.

The most typical example of the title cooperation model in the near future is the online title cooperation of the super drama "Xueyue Zhuan" of the video website at the end of 2015. Its chief naming cooperation fee is as high as tens of millions, and various co-sponsorship, special support and other naming methods are full, creating a new high in online naming cooperation revenue. In this cooperation, Xiang Piao Piao won the championship and carried out a 5-second oral support at the request of advertisers. According to Tencent's video playback data, the total playback volume of "Mian Yue Zhuan" has exceeded the 10 billion mark, becoming the highest-traffic work in history. The slogan "Exclusive Title Broadcast" brainwashed every viewer of Mianyue Chuan. The brand's familiarity quickly changed from "the cups can be connected around the earth twice" to "small hunger and little sleep and a little fragrance" It can be seen that the possibility of the influence of the title model is large [16].

# 2. SWOT analysis of Tencent video marketing

#### 2.1 Intrinsic advantages of video websites

- (1) Network speed advantage brought by hardware and technology. Tencent Video attaches great importance to the user experience, and among them, the speed and clarity of online video viewing have the greatest impact on the user experience. Therefore, if there is no strong background technology as the support of product services, the prospect of Tencent Video will be dark. At present, Tencent Video has invested a lot in how to improve the user experience, and has invested huge amounts of money in hardware and software configurations such as bandwidth, servers, and technical personnel reserves, so as to ensure that users have a good In terms of visual experience, Tencent Video is currently in a leading position among domestic peers in terms of back-end technical architecture, and its technical advantages are evident.
- (2) The number of videos is the most comprehensive. If Tencent Video is to be recognized by a wide audience, the types and number of video resources often occupy a key link. As a new domestic video website, Tencent Video has tens of millions of video resources and is one of the largest video libraries on the Internet in China. The classification of its videos is also quite fine. Movies, TV series, variety shows, originals, music, entertainment, consulting, documentaries, anime, etc., are divided into several small categories under each major category, such as variety channels. Domestic, Korea, Europe, America, Japan, original, etc.

(3) The funds obtained from financing are relatively abundant. Due to the rapid development of Tencent Video, it soon attracts venture capital. The investment objects of venture capital are usually those with strong momentum and strong potential, mainly high-tech enterprises. Therefore, if an enterprise can attract the attention of venture investors, to some extent, it also shows that the enterprise has good development potential and strong market competitiveness. As the leader of my country's video website, Tencent Video has obtained a lot of venture capital, which is also a key element of its leading position [17].

## 2.2 The inherent weakness of video websites

- (1) Lack of management of the video content of the website. At present, Tencent video has more original content; while there are more cooperation with traditional media such as CCTV, Hunan Radio and Television Group and other strong partners, but the cooperation between video sites and these traditional media is still at the authorized content distribution. If my country's video websites can output large amounts of high-quality original content to traditional media in reverse, it can not only enhance the influence of the video website itself, but also bring considerable income to the website.
- (2) Lack of interaction with developers and operators. According to the research on the current situation of Tencent Video, we can see that there are still many problems in the development model of Tencent Video. One of the problems is that the development concept of Tencent Video is still at a large and comprehensive stage, and the website itself is fully responsible for the system. Construction and technology development work, in this way, occupy a lot of human and material resources and financial resources, but also make a large part of the funds spent on this, resulting in a sharp increase in costs. In fact, Tencent Video can communicate and cooperate with technology developers and operators more, so that technology developers can participate in the construction of the website, and can also cooperate deeply with operators to save bandwidth resources by sharing servers and other methods. In this way, it can save costs to a great extent, and can ensure that more funds are used in more needed places. It is very important for video sites that are currently in the "burning money" state [18].
- (3) The profit model is vague. Although Tencent Video has received venture capital investment, its profitability has always been a dilemma that it urgently needs to resolve. Due to the extremely high operating costs of Tencent Video, it is difficult to rely on advertising revenue to achieve the purpose of cost recovery, and venture capital is also limited. Tencent Video should make breakthrough innovations in its profit model. Only in this way can sustainable sustainability be truly achieved. development of.

# 2.3 External opportunities for video sites

- (1) The market scale expanded. The key to measuring the commercial value of online media has always been the attention and number of users. Because of this, the rapidly increasing attention and user base have also made the huge commercial value contained in video sites continue to be displayed in front of people's eyes. User demand has also brought unprecedented hope to Tencent Video.
- (2) The advent of the 4G era. As domestic operators gradually realize full coverage of 4G networks, the "high speed, always online" 4G era has arrived, and its commercial value for video sites is also inestimable. 4G technology has outlined a beautiful The picture of communication life, and mobile video services will undoubtedly occupy a very important position and market share in the 4G era.

#### 2.4 External threats of video websites

Government supervision is constantly increasing. As early as December 2007, with the promulgation of the "Internet Audiovisual Program Service Management Regulations", regulations on the development of the online video industry were made. This regulation was promulgated by the State Administration of Radio, Film and Television and the Ministry of Information Industry and has authority Sex. In addition, the premise of the operation of my country's video website is to obtain the "License of Information Network Broadcasting Audiovisual Programs". According to the newly released "List of Units Approved to Start Online Broadcasting of Audiovisual Program Business", less than 70% of websites have obtained relevant approvals. However, in fact, there are still many websites that provide audiovisual services in China that have not been approved. At present, governments at all levels in my country are gradually establishing and improving regulatory agencies, and in turn innovating the supervision system for video websites. At the same time, some fiscal and taxation support policies have also been introduced to better enhance the competitiveness of mainstream video websites, so that they can better raise the copyright awareness of the people and form a scientific and reasonable regulatory mechanism.

The copyright dispute is intensifying. For my country's video sites, copyright issues have always troubled most people. As far as the current domestic overall industry status is concerned, the technical requirements of video websites are not too high. The lack of content is the key to hindering its development. Only with high-quality content can it be favored by advertisers and users. Therefore, Tencent Video often pays high copyright fees to buy popular movies, TV series and variety shows [19].

There are many competitors. In 2012, Youku and Tudou announced the merger of two traditional video website giants. According to calculations by relevant experts, the new company after the merger of the two will occupy more than 60% of the market share, occupying the first position in the current domestic video website industry, and will become the second largest video website globally. For the entire video website industry, there will be a huge change. In 2014, Youku Tudou Group announced that it has received billions of strategic investments from Alibaba Group. Alibaba Group's investment in Youku Tudou Group has set off a fierce discussion among the industries. As the BAT three giants have completed the layout of the video industry, the video website has also shown a battle between the giants. A shock of the industry pattern is about to start. The old video website Sohu Video is still working on British and American dramas. Mango TV's "Online Broadcast" strategy has also made it quickly rise to the forefront of my country's video websites. There are many competitors in the industry, which is also one of the severe tests faced by Tencent's video development.

# NEW CROWD-CONSUMER TREND INSIGHT REPORT OF SINKING MARKETTAKE E-COMMERCE PLATFORMS FOR EXAMPLE

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#### ABSTRACT

With the growth of consumption in third-tier and lower-tier cities, "sinking market" has become an incremental market eagerly pursued by Internet giants and start-ups. Among them, social e-commerce enterprises stand out and quickly occupy the sinking market. The COVID-19 outbreak in early 2020 has created new opportunities for the development of social e-commerce business models. In the perspective of social theory of electricity, to sink market consumption trends and electric business platform should be how to seize the opportunity to do research, the establishment of a sinking market social electricity business model canvas, and the development of social quotient in sinking market development end difference of business model characteristics and different factors were analyzed, and make recommendations on the basis of this, for the development of the social class enterprise in sinking market management.

**Keyword:** The growth of urban consumption, "sinking market", social e-commerce, consumer trend, COVID-19, and business model of social e-commerce.

#### INTRODUCTION

As first-and second-tier markets become increasingly aspirant, some Internet companies are starting to compete for new growth, Focusing on The users in third and fourth - tier cities. The sinking "market" has become an incremental market eagerly pursued by Internet giants and the start - ups. Among them, Social commerce enterprises emerged and quickly occupied the sinking market. The outbreak of covid-19 in early 2020 has brought new opportunities for the development of social commerce business Models. According to incomplete statistics, it is a market with a population of as many as 50-600 million, Main composed of older users over 40 in third-tier and fourth-tier cities and first-tier cities, who have always been on the edge of the Internet world.

Sinking market is a very hot word in the past two years, attracting the attention of a large number of Internet giants, Start-ups and investors. The so-called sinking market refers to the new consumer groups that enterprises shift their target customers from the first and second tier cities to The third and lower tier Cities. In other words, They shift the competitive market from the first and second tier cities where the competition is heated to the new market in the third and lower tier cities. What are the characteristics of the What's the business model of social e-commerce in the sinking market? Is the business model sustainable? What opportunities and challenges will the sudden onset of COVID-19 bring to the Development of social e-Commerce business models?

For brand Merchants, they are more concerned about which categories are more suitable For the sinking market. In which nodes do marketing, the new people's purchase desire is stronger; Online, what are the new Consumer Trends? Short video into the white-hot

competition in the industry, the first-tier cities user time relatively scarce, participation in four lines and the city is large in number but is relatively fixed. Want to improving the quality of fans, is critical to the user operation good lower-tier cities, women after 90 is a one of the highest permeability based on a short video of people, Including up to 8 into food lovers. Their viewing preferences, food preferences and consumption characteristics are all worthy of attention. What do these users watch on short videos? How do you produce content that appeals to them? The blue Sea of colour makeup market, be in actually three or four line small city? Apparently Data show that in third-tier and lower-tier cities, Affordable Cosmetics Account for more than 60 percent of sales and consumers. And Lipstick, Beauty Makeup Tool, Eyebrow pencil, eye shadow is 3 cities consumer color makeup entry category below. What new opportunities for makeup are hidden in third and fourth - tier cities?

The pain point for people in The sinking market is that they are very price sensitive, their consumption decisions can be influenced by minor price random, And the people in the sinking market have relatively more leisure time, but their entertainment infrastructure is limited. Manipulating a number of variables, manipulating a number of variables relating to 847 million mobile Internet users (accounting for 99.1%). Manipulating by factors such as 1000-yuan phone, low threshold for use, speed up and cost reduction, Smart phones have become an important entry point for the users in the sinking market to use the Internet, It is worth noting that the scale of rural Internet users is 225 (only 26.3%). While non-Internet users are still mainly in rural areas (62.8%), Lack of skills and low level of education limit the use of the Internet by non-Internet users. It is the direction to tap into the rural market Development potential of the sinking market to grasp the needs of connection for communication, online guidance and barrier-free equipment.

Using Internet thinking, establish good cooperative relationship with individual merchants, suppliers and Producers traveling in the supply chain, as well as agricultural product Bases, And share information. In order to achieve mutual benefit and win-win results, after the COVID-19 outbreak, Online e-commerce can also be used to help farmers solve the unsalable problem of fruits and vegetables and drive the sales growth of the platform. [4] Faced with a large number of consumers in the platform Sinking market, enterprises should not only focus on the increase in the number of new users in the process of "sinking", But also take into account the customer relationship in the aspects of improving the activity of old users and the buyback rate. In the process of effective customer relationship. Cultivation in order to form a sustainable and profitable business model, enterprises should have sufficient talents, technology, capital and other key resources. At the same time, In order to realize the value proposition of the business model, e-Commerce in the sinking market should actively innovate and make breakthroughs, reduce costs through effective key activities, Don't take up any supplies, like water supplies, and establish a good cooperative relationship with key partners in the upstream and downstream of the supply Chain.

#### THE SINKING MARKET CROWD

# 2. 1 Huge Sinking Market Population, Incremental space to be Motive:

According to data analysis, the sinking market has a huge market space. According to the Estimation of the population of third-tier, Penetration rate of 72.8 e-Commerce in 2017, the market size has exceeded one trillion. With the improvement of urbanization rate, The consumption upgrading will continue to accelerate.

Although the income and consumption of people in the sinking market are definitely not high, the growth advantage is obvious. In the past two years, Per capita disposable income of rural residents has increased faster than that of urban residents, and as a result, The

consumption expenditure of rural residents has also increased faster than that of urban residents. The slow living environment and low living pressure in third-tier and fourth-tier cities make. They are more willing to lay lay, even as the first-tier and second-tier people. From the perspective of all cities, the consumer confidence indexes of the second, Third and fourth tier cities have all Improved, and the Consumption index growth of rural areas is particularly prominent.

Consumer preferences:Education and food shopping are the main focus.Users are spending more time and money on Education, food shopping and entertainment.Users are also willing to continue to invest in education and food shopping. Medical service has become the third place in users' consumption intention,Surpassing leisure and entertainment. The Product innovation can be carried out -based on the content users are concerned about, aiming at the situational demands of education, gourmet shopping,Medical services and leisure and entertainment, so as to grasp users' tendency to choose to provide Diversified products and services.

## 2.2 Mobile active User scale is considerable:

There is a certain gap between the scale of active users in the sinking market of social networking, information, video, music, e-commerce, payment, Map and other fields and first-tier and second-tier cities.

In 2019, the total number of people In the sinking market reached 291 million, among the total number of active people In the fields of Comprehensive, Special sale and social ecommerce was 243.641 million, and the penetration rate was 61.4%, 14.0% and 8.3%. The penetration of MOBILE phones has been used in various kinds of penetration. The consumption potential and mobile shopping ability of The sinking market were greatly increased.

## POPULATION DIFFERENTIATION IN THE MARKET

The quality of The commodity itself becomes The most noteworthy Indicator of The sinking market. Although The price index of consumers in The sinking market is still higher than that of first-tier and Second-tier cities, the trend of change is unchanged in the past two years. Among them, the attention of quality and quality, Public praise evaluation has exceeded the attention of the price, and presents a rising trend.

In addition, regional platforms and outlets, consumers in the sinking market pay the highest attention to the credibility index.Logistics and service attitude are also important reference indexes for its shopping, and in recent years, attention has been rising. For the online store, Whether it is a branch that has purchased before, the consumer attention index is listed at the end, sea-voyage that there is a large migration of consumers, And it is easy to retain customers in a rare state.

The sinking market is becoming more said. They value quality more, but not blindly. Pay more attention to product quality and inner choice, Moderate consumption concept is stronger. In the sinking market where the living standard is improving day by day, consumers show the pursuit of quality and benefits, And the concept of Rational consumption is prominent.

#### **3.1 Consumer trends:**

The index of consumer online shopping categories in The sinking market is not significantly different from that in first-tier and second-tier cities, Diversified development. Among them, the TOP3 categories with the most frequent online shopping in the sinking market are transportation ticketing, Clothing apparel and household goods. The online

shopping index of consumers in The sinking market is higher than that of first-tier and second-tier cities in furniture supplies, Mother and child supplies, sports products, Books and Audio-visual categories.

Cross - border e - commerce,Organic Health and other specialty categories are experiencing an outbreak in the sinking market. The Top5 categories of the sinking market growth index in the past two years are transportation Ticketing, cross-border goods, furniture, mobile phones and Digital products, and clothing and apparel. Of those, 64.3% said they had overseas online shopping experience. 65.9% of consumers in the sinking market are willing to consume in a green and healthy way, 30% and more than 40% of consumers in the sinking market have experience in purchasing green food and healthy Home Appliances online.

#### **3.2** The customer evaluation:

The sinking market has created a unique development environment for The social sharing e-Commerce model with The special Consumer Attributes of "acquaintance society + price sensitivity + leisure Entertainment ".In the acquaintance society, consumers In the sinking market are more keen on using the social Attributes of social e-commerce to share, So as to help the social e-commerce to realize the split publicity and promotion. The price sensitivity of residents in the sinking market enables social sharing e-Commerce companies to be effectively. Push users to share by introducing incentive strategies such as subsidies; The demand for leisure entertainment, functions of social sharing, such as group purchasing, inviting support and sharing, lies in users' entertainment.

Word of mouth is the primary form of reference when shopping, And live broadcast and video become the means of recommendation. Consumers in the sinking market are most manipulating by public reputation and evaluation, Followed by their own search judgment and strong sense of consumption autonomy. Meanwhile, in the past two years, the frequency of consumers placing orders for personalized recommendation, Video recommendation and Live Broadcast recommendation have increased profits, However, the frequency of consumers placing orders through pleasure recommendation has decreased. Traffic dividend is from social to content. Blank on live Broadcast and short video will become important means for active consumers in the sinking market to improve purchase Conversion rate in the future.

At present, low price, social contact and strategies for Internet enterprises to acquire users in sinking market,But users have different opinions on social e-commerce. They generally said that we chat business, group and other frequent recommendations interfered with normal social relations, Pared with the first-tier and second-tier cities, and based on the trust of friends, they ignored their own judgment and bought low-quality products. Com Sinking users in sinking market have a lower sense of identity to the positive role of social model. Sinking users are more vulnerable by social relationships and impulse spending.

But as fake, and counterfeit products scandals repeated exposure, and much of registering a new user in power success to help others, or by clicking on the after receive preferential, All will no longer use shopping software shopping consumption, Retained and platform sales increase of old customers becomes the key issue in the maintenance of customer relationships. Therefore, Shopping software can use big data analysis and other means to strengthen the control of product quality within the platform, And set up a consumer rights protection fund to ensure that consumers in after-sales disputes can get claims in a timely manner.

# 3.3 Logistics and service will be the key for e-Commerce platforms to win the market:

Although users in sinking market can accept longer delivery time at present, they have paid more attention to the factor of logistics speed than those in first-tier and second-tier cities, And logistics has become a major pain point in sinking market. In the future, He paper

transportation will be the primary problem to be solved by e-commerce platforms. Maturation logistics experience and Diversion competition barriers will become the key for e-commerce platforms To win the paper market.But at the same time, due to the fear of covid-19 virus and the implementation of measures on the impact of express, a large number of consumers are not willing to choose online shopping.

#### HOW TO CAPTURE THE SINKING MARKET

# 4.1 E-commerce platforms use different means to meet the needs of different levels of the sinking market:

Subsistence needs: low prices and best sellers

With social fission as the main method, best sellers and low-costs products are created through group bidding, Friends bargaining and other forms. Such consumers are generally price sensitive. Value proposition is another core element of business model. To help customers solve some of their unique pain points. The pain points for residents of sinking markets are that they are very price sensitive, Manipulating a number of variables relating to their consumption decisions may be achieved by small price Upgrades, and that they have relatively more leisure time but relatively limited entertainment infrastructure.

Service-oriented demand: live video

With content ecology as the core, live broadcast and short video are used to improve the purchase conversion rate of users in the sinking market and increase the means of active consumers. Pay attention to this kind of consumers, pay more attention to the sense of participation and interaction when shopping.

Realistic needs: consumer experience

To build a good consumer experience ecology as the goal, from marketing, supply chain, logistics, finance, service and other aspects to meet the needs of customers in the sinking market. This type of consumer is more concerned with the experience of the whole process, such as the portability of multiple consumption.

# 4.2 The main factors for e-commerce to expand the sinking market

Ecological construction:

The competition of e-commerce platforms in the sinking market is the competition of business ecology behind them. The resources of partners, the depth and width of supply chain, the construction mode of savings logistics, the management of regional marketing personnel and other hard powers directly affect the production and marketing efficiency of sinking market, and are important factors that determine the cost and income of sinking market.

The establishment of the business model of social e-commerce should have the ability to adapt to sudden environmental changes. When the social environment and the market environment undergo great changes, enterprises should make efforts to give play to the elements of the business model that still have advantages in the new environment. At the same time, it adjusts and innovates the elements of the disadvantaged business model, analyzes the pain points and demands of consumers, and finally improves the continuous operation ability of enterprises and explores the advantages of social e-commerce in the new environment.

Technology of blessing:

The market insight based on technology of e-commerce platform is the power to guarantee its rapid development.E-commerce platforms accumulate a large amount of consumption and preference attribute data. Making market trend judgment, user demand insight and production planning and arrangement with technical analysis tools are the driving forces to ensure the development of the sinking market.

In the face of a large number of consumers in the sinking market, social e-commerce platforms should not only focus on the increase of new users in the process of "sinking", but also take into account the cultivation of customer relations in terms of improving the activity of old users, repurchase rate and other aspects. In the process of effective customer relationship cultivation to form a sustainable and profitable business model in the long run, enterprises should have sufficient key resources such as talents, technology and capital, and attach importance to the importance of capital resources in the use of "subsidies" for marketing promotion in social e-commerce[14]. At the same time, in order to realize the value proposition of business model, social e-commerce enterprises in sinking market should actively make innovations and breakthroughs, reduce costs through effective key activities, and establish good cooperative relations with key partners in the upstream and downstream of the supply chain.

Content operation:

E-commerce pays more attention to the efficiency of user acquisition and the retention ability of users. The rapidly splitting sinking market allows us to see the efficiency advantage of obtaining users in social ways. However, in the long run, only by creating various forms of content operation centering on user preferences and word of mouth can the retention and repurchase of users in sinking market be maintained. Therefore, content operation is the key point of future development.

The effective operation of social e-commerce business model in the sinking market not only depends on the development of sales model and publicity channels, but also needs to form a clear and sustainable revenue flow and reasonable cost structure, so that enterprises can obtain cash income through business activities, so as to achieve sustainable operation of enterprises.

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# THE POTENTIAL OF TELEMEDICINE APPS IN CHINA

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#### **ABSTRACT**

In the 21st century, the medical industry's goal is to provide quality, efficiency and convenience. Stakeholders in the global industry are looking for innovative methods with low cost and high efficiency, and provide patient-centric, technology-driven telemedicine services outside the hospital. However, China still has medical conditions, the quality of medical care varies greatly, poor referral coordination and low-risk treatment. At the "2018 China Health and Health Innovation Development Summit and the Fifth International Telemedicine and Health Service Conference", the Sino-Japanese Hospital Telemedicine Center said that at present, telemedicine, Internet diagnosis and treatment and other business synergies may become one . Ways to alleviate the problem of "seeking medical advice and medicine" in China.

There are currently two telemedicine models in China. One is the remote medical mode between medical institutions, and the other is the Internet clinic mode of medical institutions. The diagnosis and treatment mode of the Internet is currently limited to the recurrence of certain common diseases, that is, patients must go to the hospital to see a doctor. After the doctor understands the patient's condition and masters the patient's medical record data, he can follow up or follow up through the Internet platform. In recent years, popular APP health consultation, online registration, query and examination results, and residents' health records are all medical auxiliary services, and patients can log in to the main medical platform for consultation. However, the medical auxiliary business is a market behavior and medical knowledge sharing behavior, which does not belong to the telemedicine category. How to make telemedicine comply with medical rules. How to make the medical industry need professional qualifications and medical quality management, an APP that meets the formal telemedicine standards will be essential,

The main purpose of this research is the development potential of telemedicine APP in the Chinese market.

## **Feature**

- 1. Clinician uses technology to diagnose diseases and provide medical services more accurately
  - 2. The entire medical service ecosystem can effectively exchange and use information
- 3. Appropriate personnel perform appropriate work (eg nurses who care for patients without administrative work)
  - 4. Can make patients aware and actively participate in the treatment plan

The superiority of performance will determine the potential to attract investment and market profits in the development of telemedicine APP

**Keywords:** telemedicine APP health information willingness technology acceptance model.

#### INTRODUCTION

In the age of the Internet background, with the large popularity of smart phones, various mobile applications constantly out now, and involving various fields, but also spawned a number of healthy APP development. Today in China, healthy APP of species is increasing, the number is also growing, up to now, telemedicine application on the domestic smartphone market APP varied operational development of different types of health APP, their business model and the main business operations have a big difference. At present, China's development is better than the larger market share health APP application software spring doctor, good doctor online, safe good doctor, ask the doctor quickly, Lilac Park, US grapefruit and aunt and so on, which some users more familiar The health app developed early, and its positioning is more accurate, which quickly occupied the market and developed rapidly.

Health on these smartphone application market APP to provide the inquiry disease, medical letter information query and symptoms of self-examination and other types of health services APP broader, through the provision of these services, to a large extent facilitated user, telemedicine APP in the delivery of health-related information, user-friendly query ailment, plays an important role to meet the health needs of the user and so on, through the use of telemedicine APP , users can not only search for health answers to health problems, but also can get anywhere by mobile Internet Use health care, weight loss, exercise, fitness, health management and other related services. The widespread existence of telemedicine APP alleviates the shortage of health information resources to a certain extent, and provides great convenience for users to obtain health information and services.

Although the emergence of telemedicine apps has attracted some people, due to the particularity of the medical and health industry, these telemedicine apps also have many problems. The quality of health information is not high, the trust of users is low, the lack of supervision, and the confidentiality is not strong. Lack of security, the accuracy and reliability of the medical health information provided by the health app is closely related to the life and health of the user, so this places high requirements on the accuracy and authenticity of the health information in the health app, especially now letter on the Internet information can not guarantee the authenticity, telemedicine APP issues arise it is endless, which have led people to telemedicine APP willingness to use relatively low. Research on telemedicine user APP using the will, the purpose is to better improve telemedicine APP information quality, service quality and achieve their own development, so this telemedicine APP user's willingness to use research to expectations for the remote Medical APP operators provide reliable suggestions to improve users' utilization rate

#### 1.2 Problem statement

In today's era of rapid development of network technology, apps in various industries are constantly emerging. In the health app industry, the number of domestic health apps is increasing, and in recent years it has shown an explosive growth trend. Now that due to the widespread existence of health apps, people are greatly facilitated in obtaining health information and services.

**Current status:** Due to the serious homogeneity of the development of various health apps in the Internet market, the health information provided by it is difficult to discern authenticity, resulting in a relatively low usage rate of telemedicine apps

**Desired state:** Let the service quality of telemedicine apps meet the needs of users, increase the utilization rate of telemedicine apps, and allow telemedicine app operators to have a broad platform to provide protection for people's health.

# 1.3 Research questions

How to improve the utilization rate of telemedicine APP and solve the current low utilization rate of telemedicine APP?

How to meet the health needs and user experience of users, increase user stickiness, and increase the utilization rate of telemedicine apps?

#### LITERATURE REVIEW

2019 years COVID-19 has become the focus of global attention, from a few countries began to spread around the world, the world has more than 30 million people diagnosed, this time is not IT but also for individual countries to make a corresponding telemedicine APP, the Singapore government's Science and Technology Bureau of communications and senior Minister of the Department of Public Bhuj stand, at a press conference the government of Singapore Technology Bureau and the Ministry of health has launched a cooperation on coronaviruses tracking App - TraceTogether. Download this App users only need to turn on Bluetooth, the App will allow users to exchange short distance between the phone via Bluetooth Bluetooth signal, which can be very convenient to know that people in the 21 days before the user's had contact record And save. Through this app, the Ministry of Health will be more convenient when it is tested that a patient is diagnosed with an infection. This APP fully demonstrates the advantages of telemedicine APP

- 1. Telemedicine APP can greatly reduce the time and cost of obtaining information.
- 2. The telemedicine APP can well manage and distribute emergency medical services in remote areas, which can be achieved by transmitting photos to key medical centers.
- 3. The telemedicine APP can enable doctors to break through the limitation of geographic scope and share patient medical records and diagnostic photos, which is beneficial to the development of clinical research.

# Marketing success of Dr. Chunyu APP in China

Dr. Chunyu 's medical products have only started in 2011, but they have developed rapidly. In more than four years, "self-diagnosis" has launched an intelligent search engine for patient self-examination by accumulating millions of consultation data submitted by users. The "Air Hospital" has achieved a 24-hour doctor consultation service on standby through a crowdsourcing mechanism, and has also launched a membership system. In addition, "Dr. Chunyu" also launched its own health tools and launched an information module. The service has not only become diverse, but also has a considerable depth. The product positioning and user experience are doing very well. At present, there are more than 30 million users, 40,000 online doctors, more than 50,000 daily consultations on health issues, and a lot of profits. Dr. Chunyu's marketing success illustrates several issues

- (1) The precise diagnosis and treatment of minor diseases has almost replaced the function of the hospital. The emergence of Dr. Chunyu has changed the medical habits of many users in China
- (2) Due to the professionalism of medicine and medical treatment, users pay more attention to the problems of APP itself than other tools.
- (3) Convenience of payment will greatly increase the payment rate of telemedicine, so that telemedicine has a huge market,
  - (4) Because they can solve practical problems, users have a strong willingness to pay.

## **Summary of important documents**

Zhao Baoguo, Yao Yao (2017) stated that in this context, the market size of the mobile health industry has expanded rapidly, and health apps have ushered in vigorous development, helping more and more users to achieve self-management of health problems. As the most commonly used group of mobile applications, college student users, their continuous use mechanism has become the focus of attention and research. This research aims to help health app designers and manufacturers clearly determine the judgment mechanism that affects the long-term use of college students, help companies find their own software advantages among many competing manufacturers grasp user needs, increase users' willingness to use continuously, and promote business innovation development exhibitions. : This study uses a combination of qualitative and quantitative research methods to study the influencing factors of college students' willingness to use health apps continuously. First of all, in view of the current weak theoretical basis of the factors affecting the continued willingness to use healthy apps, the use of grounded theoretical methods, preliminary research through in-depth interviews and focus groups, through open coding, spindle coding and selective coding, found 4 dimensions In terms of user perception, APP quality, individual conditions and objective situations, 9 factors namely perceived usefulness, perceived ease of use, information quality, system quality, service quality, health literacy, personal characteristics, conversion costs and objective factors affect college students 'health APP Sustained use willingness; second, construct a theoretical model of factors influencing the continued use willingness of college students' health apps, and put forward a total of 17 hypotheses including direct impact on continuous use willingness, intermediary influence, and moderating variable influence; Effective questionnaire, and analyze the distribution, reliability, reliability and correlation of the samples through SPSS software; Finally, the structural equation model test is conducted through AMOS software. Concluded as follow:

Conclusion 1: College students generally accept health apps on a high level. There are many different types of health apps on mobile phones of college students with continuous use behaviors. Among them, fitness shaping has the largest number of users, followed by sleep relaxation, physical and psychological Categories, medical medicine purchases and others.

Conclusion 2: The influence of adjustment variables on the willingness to continue to use: college students who use medical app purchases, fitness shaping, physio-psychological and other categories of health apps have stronger continuous use intentions, and the remaining categories have no effect on the continuous use intentions; There is no difference in the influence of different genders and education levels on the willingness to use continuously.

Conclusion 3: The path extracted from the grounded theory and tested by the structural equation model are: perceived usefulness, information quality, system quality, and health literacy significantly affect the continued use willingness, information quality significantly affects perceived usefulness, and system quality is significant Positively affect perceived ease of use, and objective factors significantly affect perceived usefulness and perceived ease of use.

Conclusion 4: The paths extracted from the grounded theory but not passed the structural equation model test are: perceived ease of use, personal characteristics, conversion costs, the impact of objective factors on the continued use willingness, and the impact of service quality on the continued use willingness and perceived usefulness. However, the correlation analysis of SPSS showed a moderate and strong correlation. The grounding theory of qualitative research methods and the empirical research method structural equation model are not exactly the same. The advantages of the combination of the two research methods are obvious in this study, that is, the reasonable range of independent variables is expanded, while individual The direct influence relationship between the variable and the dependent

variable leaves room for subsequent research to determine the undiscovered influencing factors or influence paths, and also provides new ideas for user behavior research and other sociological fields.

#### **CONLUSION**

According to the characteristics of the telemedicine APP service through the literature survey method, then the factors that affect the user's use of the telemedicine app are first proposed, and then the interview method is used to further clarify the influencing factors of the user's use of the telemedicine app, and the two proposed factors are integrated and clustered, To obtain the final factors that affect users' use of telemedicine APP, in order to put forward research hypotheses, and construct a model of factors affecting telemedicine app's willingness to use.

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# THE IMPORTANCE OF KNOWLEDGE MANAGEMENT IN HUMAN CAPITAL

## Yidan wang

## INTRODUCTION

# 1.1 Background

Human capital plays an important role in enterprise development. Current businesses recognize that in order to continue to succeed in the market, they must use physical, financial and information resources and link them to human capital. When companies want to remain competitive in domestic and global markets, they must be aware of the value of people in the labor process (Hitka et al., 2019). In the framework of human capital, knowledge is the most important strategic asset in an organization and an important resource for gaining sustainable competitive advantage. Today, the debate about the knowledge economy is increasing, highlighting the role of knowledge management in human capital and the dependence of organizational and national prosperity on knowledge manipulation capabilities (Mbebeb, 2019). Human capital management under knowledge management emphasizes peoplecentered and people-centered management methods. This is a dynamic psychological management method, a conscious regulation management method, and at the same time, it focuses on the discovery and development of talents (Qu Hongqing, 2017). At the same time, knowledge management (KM) is more important than knowledge, and organizations are trying to explain and clarify how information and individuals and known organizations translate into the knowledge and skills of individuals and groups, making it possible for all organizations Competitive. For effective impact of KM in organisation strategy, organisations must enhance the relation between KM and human capital. KM is not only a technical approach, but it is also a social and human process which is being supported by technical and technological approaches, and according to what some researchers have concluded, 10% of KMis based on technology and 90% on staff. We believe that KM must be concentrate and focus more on human, because according to some researches, people (human and staff) are the heart of KM. (Mirzaie et al., 2019). Management requires that the human resource management of an enterprise can absorb knowledge management ideas, and use collective wisdom to improve the company's ability to respond and innovate, and then enhance its competitive advantage (Tian Yitong, 2017).

#### 1.2 Problem statement

The role of knowledge management can not only help decision support functions, but also achieve the benefits of reducing costs, improving efficiency, sharing knowledge, and assisting decision making (Xiaogai & Lei, 2019). There are still many problems in the management of human capital in the enterprise. Although the concept of knowledge management occupies a very important position in human capital, due to the lack of attention to knowledge management by the enterprise, knowledge management has not been better in the enterprise. This problem can be solved by quantitative analysis research methods. This article explains through research whether knowledge management can effectively increase corporate performance and whether it can allow companies to achieve better market competitiveness in market competition. The side shows the importance of knowledge management to the human capital of an organization.

# **1.3 Research questions**

How important is knowledge management to organization human capital.

# 1.4 Research objective

This research means to provide the evidences how important is knowledge management to organization human capital.

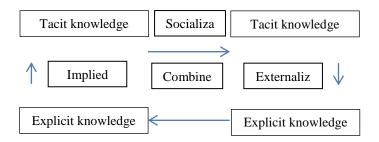
# 1.5 Significance of Research

The significance of this study at the concept of human capital given to knowledge management, this article first summarizes the relevant theories of knowledge management and human capital, and concludes whether there is a positive correlation between knowledge management and human resource management, and aiming to help enterprise managers to correctly recognize the importance of knowledge management for the use of human capital, and help them better understand knowledge management Use in human capital.

#### LITERATURE REVIEW

# 2.1 background

As for the types of knowledge, descriptions from different angles are also diverse. In the annual report "Knowledge-based Economy" released by the Organization for Economic Cooperation and Development (OECD) in 1996, knowledge is divided into fact-knowledge, principle-knowledge, know-why, and skill-knowledge And know-who, and put forward the law of knowledge transformation, and believe that the process of "knowledge transformation" includes socialization, externalization, combination, and internalization, as shown in Figure 2.1.



**Fig 2.1** The process of knowledge transformation

The socialization of tacit knowledge is the personal process of sharing tacit knowledge, mainly by observing and then imitating, and finally carrying out tacit knowledge transfer in the form of practice.

The externalization of tacit knowledge is the process of transforming tacit knowledge into a form that others can easily understand and express it clearly. This process mainly relies on analogy, induction, summarization, and is promoted through the formation of words.

The combination of explicit knowledge is the process of integrating and systematically fragmenting explicit knowledge through this process. Learning at work is an effective way to realize the implicitness of knowledge. Through this process, organizational knowledge can be spread among the members of the organization.

The implicitization of explicit knowledge is the process of transforming explicit organizational knowledge into tacit knowledge of other members of the organization. Continuous learning in daily work is an effective way to realize the implicit knowledge.

Through this process, the implicit knowledge of the organization can be spread among the members of the organization.

Knowledge passes through the four stages of socialization, externalization, recombination, and final internalization. It realizes the transfer of knowledge between individuals and between individuals and organizations, and finally regenerates new tacit knowledge. A growing knowledge spiral is formed in the process of mutual transformation between the two, which promotes the continuous development of knowledge.

# Content of knowledge management

According to the theory of knowledge classification and transformation, it can be understood as follows: knowledge management is the management of the continuous spiral transformation process of explicit knowledge and tacit knowledge, so that in the process of improving the quality and quantity of knowledge, individuals and organizations are improved. Specifically speaking, it is through the mining, induction, sharing and application of knowledge. Thereby promoting knowledge innovation. As shown in Figure 2.2.

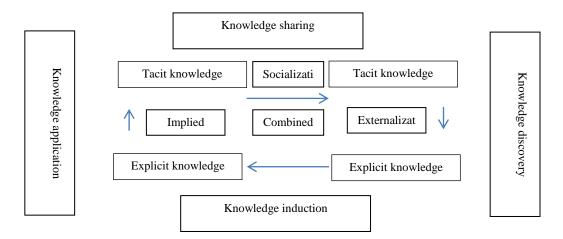


Fig 2.2 Content of knowledge management

Knowledge mining and collection is to promote the externalization of tacit knowledge and the combination of explicit knowledge, and continuously mine, collect, classify and store the existing knowledge and experience accumulation of personnel in the organization. The tacit knowledge that exists in the mind of an individual needs to be linearized by such mining methods as communication and discussion. Explicit knowledge such as various materials and documents scattered inside and outside individuals and organizations should be classified and stored for easy sharing.

The application of knowledge sharing is to internalize explicit knowledge and socialize tacit knowledge. Realizing the application of knowledge is usually an individual learning explicit knowledge in the organization (such as job requirements, experience summary, case analysis, etc.) and mastering it through his own experience to achieve the growth of personal tacit knowledge. The realization of knowledge sharing is mainly achieved through the way of person-to-person communication, such as seminars and evangelism.

In the process of continuous knowledge mining, collection, application and sharing of the organization, everyone in the organization can easily and quickly find the knowledge, experience and communication needed to achieve the purpose of rapid application. In addition, as employees apply the knowledge they mine and collect to their work, they quickly broaden, extend, and rebuild their own knowledge systems, thereby promoting the sharing of knowledge again and achieving continuous innovation.

# ONE CARD FOR ALL OVER THE CAMPUS: CAMPUS CARD INNOVATION

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## **ABSTRACT**

With the continuous acceleration of the country's informatization process, the impact of information technology on people's daily life is also increasing. As an important place for the country to cultivate talents, universities must naturally keep up with the pace of informatization. As an important part of the construction of a digital campus, the campus smart card is a basic project to realize campus informatization and an important tool for the school to improve management. However, in most colleges and universities, due to limitations in school scale, construction funds, and the lack of unified management, each department has issued cards independently, settled independently, and has more than one card for one person. Inefficiency and serious waste of resources. The so-called "campus smart card" generally refers to a "campus card" issued by a commercial bank on a specific campus in the name of joint development, or precisely a bank debit card. Its purpose is to achieve "one card" for campus consumption, student management and other affairs. In other words, all kinds of consumption and management functions related to students, regardless of whether they belong to teaching functions, logistics functions, or even social functions, are solved by the same card. The campus smart card and its network system enable school teachers and students to hold the IC card as a means of identification for computer room management, time and attendance, access control, query results, loan books, school medical office registration, online information query and other functions. This article analyzes the "Campus Smart Card", briefly describes the function setting of the "Campus Smart Card" and the important development of the campus smart card for the construction of digital campus. This is a conceptual study to recommend one card system at educational insitutues.

**Keyword:** Campus smart card; management system; digital campus; function setting.

#### INTRODUCTION

"One card travels all over the campus" is the most vivid description of the campus smart card, and it also highlights its convenience. The campus smart card is the product of education digitization and informatization. With the increasingly developed Internet of Things technology, "one card travels all over the campus" can be realized. The campus smart card is built on the management platform, which integrates many functional modules, such as personnel access, attendance, consumption, and transportation, etc. These subsystems are managed and controlled by the platform, and the subsystems obtain The information will be transmitted to the management platform to form a database to assist query and analysis. We can think of the campus smart card as an integrated circuit board, and each branch is equivalent to a different subsystem, but in the end it must be converged on a board. Leaving aside customized development, the "universal version" of campus smart cards must be reasonably combined with a large number of functional modules to achieve maximum efficiency in order to be truly convenient. For colleges and universities, campus smart cards are not as complete as possible, but as practical.

#### LITERATURE REVIEW

In China, all small, middle, and universities have implemented campus cards and complete systems, which not only speeds up the construction of digital campuses but also facilitates teachers and students. The campus card can be substituted on campus: (1) Identity card: student ID (work permit), library card, membership card, admission ticket, access card, etc.; (2) cash card: electronic wallet, electronic passbook, dining card, card Machine certificate, medical certificate, etc. The application scope of "Campus Card": (1) Management function (identity authentication): student management, educational administration management, library management, computer room management, attendance management and examination management, etc. (2) Consumption function (electronic wallet): (water, electricity, internet, telephone, tuition, and on-board fees, etc.) payment, dining in cafeterias; shopping in retail stores; medical treatment in medical offices; consumption in gyms, etc. And Alipay can also enjoy discounts for individual restaurant students (3) Financial functions (settlement center): centralized financial processing of the school financial center and reconciliation with the bank; transfer functions with the bank, including "campus smart card" and bank Handling of transactions between individual accounts, etc. (4) Self-help function (self-service): faculty and students hold cards to self-check the balance of e-wallet (campus account), bank account balance, student scores, credits and other information; students can choose courses with card, electronic wallet deposit, deposit, Withdrawal, remittance, etc.

#### RESEARCH METHODOLOGY

# Research gap

In recent years, in China, digital campuses and campus cards have been implemented a lot and developed rapidly, but under this extremely rapid development, there are also many drawbacks and difficulties. For example: due to the excessive pursuit of functional realization and the lack of overall planning for digital campuses, the subsystems to be launched are often from different suppliers. The differences in technology and different structures cause difficulties in communication and data sharing between systems and data redundancy. Large, chaotic, and uneven, forming independent "information islands".

Similarly, due to the differences in information and the heterogeneity of the technical architecture, it is difficult to achieve a collaborative working environment for teachers, students, and administrators without transforming the original information system. The implementation of information security, authority management, unified processes, standards and standards also has different degrees of difficulty, and different universities use different standards, often using different technical interfaces and business specifications.

## **CONCLUSION AND DISCUSSIONS**

With the development of high and new technology, with the deepening of the popularization of campus informatization, the functional applications of all aspects of campus smart cards have been popularized in all aspects of campus, and the functional applications of all aspects have successfully solved the needs of the campus, and thus are subject to the management of universities. Vigorously promote and recognize. With the further development of information technology, campus smart cards will also penetrate into all aspects of school life, teaching and management. The campus smart card is based on the teachers and students in the school as the main service object, based on the internal payment function of the campus, and has the campus digital query function, as well as some life functions and the identification function of the campus teachers and students. The campus smart card is not an independent existence, it must rely on the college campus network. Without the campus network, the smart card cannot realize the functions on the campus. While meeting the daily needs of teachers and students in the school at the same time, it has reserved a lot of expandable space, which is of great significance for the sustainable development of campus digitalization.

## **DISCUSSION**

According to the results of the research questions, there are many teachers and students who have used it in China. They all say that the campus smart card is very convenient to use, you don't need to carry change, and you can use the campus smart card made by individual schools in your life. Function, this research shows that campus smart cards can be implemented in Thailand, and when inquiring about Thai students, they all expressed great interest, hoping that their campus can also become a digital campus. I think that no matter in which country, nowadays is the age of technology, then the campus is the best place for the country to enter technology, and it is also the most acceptable place for technology. The campus smart card is the best thing to start with the digital campus and it can best reflect the technological era. Although it has been implemented in China, there are still some shortcomings, such as: not all campus cards can be used for transportation, and not all are You can bind Alipay and so on. Thailand's current economic level can fully produce and implement campus smart cards. This project will definitely enable Thailand to enter a new technological era.

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# THE CHALLENGES OF THE OBOR AND THE SIGNIFICANCE OF THE CPEC

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#### **ABSTRACT**

The One Belt One Road (OBOR) initiative is a historical landmark that intends to connect more than two-thirds of the world population and open up the windows for reviving global business, peace, and infrastructural development across the countries. The China-Pakistan Economic Corridor(CPEC) is Belt and Road's most ambitious project. It presents an example of just about every piece of Belt and Road that China hopes to accomplish elsewhere. Qualitative method is used in this research. The data sources in this research are in forms of the already existing reliable news articles, both national and international regarding this issue, and similar sources of information as the data source. This study addresses the current challenges of the OBOR. The OBOR is facing security threats. Modern terrorism and the local separatist movements can harm the initiative. At the same time, western scholars believe that China seeks to acquire regional hegemony and spread its influence by utilizing the OBOR. So the project is also encountering the challenges of other global and regional countries. Specifically, the research focuses on the impact of the Security Threats and External geopolitical challenges on the successful implementation of the CEPC. The United States and India worried that China may use the BRI to expand its influence and they will do everything they can to sabotage the project. Pakistan's terrorist group's opposition to the BRI is not necessarily just for China. The security situation in some areas along the China-Pakistan Economic Corridor is still not optimistic. However, the BRI will benefit everyone. The construction of the CPEC will set a model for other countries. The CPEC is more than an infrastructural line, and it will severely boost the economic development of the region. The geographical location is crucial, which determines the strategic importance of the CPEC in the BRI.

Keywords: OBOR, BRI, CPEC, Security Threats, Geopolitical Challenges

# **INTRODUCTION**

For many years, China has been striving for close incorporation with neighboring countries. The article presents issues that are raised in front of China regarding the launching of the "one belt, one road" initiative in recent years. Furthermore, this article attempts to explore the reason why those challenges emerge.

## 1.1 Background

The Silk Road was a route for all political, economic, and cultural communication between ancient China and the West. (Baidu Baike) The Chinese Dream is promoted by Xi Jinping since 2013, aims to rejuvenate the Chinese nation, modernization, economic prosperity, and national glory. (Wang,2014) The objective of the One Belt One Road initiative is to realize the "China Dream". OBOR, also known as BRI, is a trading network to connect

the diverse countries of Asia, Europe, and Africa. It comprises of the Silk Road Economic Belt (SREB) and the 21st Century Maritime Silk Road (MSR). (Al-Fazari&Teng,2019) To successfully implement the initiative, there are five nomadic moments of cooperation within the OBOR: the harmonization of political visions, the establishment of road transport links, unhindered trade, free capital flow, and the common expectations of the people. (Oliynyk,2019)OBOR has a huge potential for future development. Strong coordination and cooperation among the partner countries are the secrets of getting full-fledged benefits of OBOR through supportive policies, rules, regulations, proper strategy, transport procurement, sincere political consideration, financial integration, and other environmental & social factors. (Hosain&Hossain,2019)In the long term, the OBOR initiative will create mutual benefit for trade and political stability.

## **1.2 Problem Statement**

There are many problems and challenges about the BRI due to geopolitical situations, ideological differences, cultural differences, state of economic development, and so on. Tons of articles were published about Chinese BRI. However, relatively little attention has been focused on the challenges affecting the success of the initiative in the long term. (Harutyunyan, 2019) There is an analogy between OBOR and US "Marshall Plan". Many scholars call OBOR "new Marshall Plan" and there is a geopolitical perspective to judge the two. Like the functions of OBOR, the Marshall plan can play a similar role in the post-war European economic recovery and the European integration process.(Lv,2018) Because of the similarity, many doubts arise. These are many international relations scholars who question the motivations of China. (Yunus, 2019) With the expansion of coverage to more countries, mainly in the West, there are increasingly comments on the growing problems of BRI. (Financial Times (June 18, 2015) )Since Donald Trump took the office of the American President, the US and China face rising tensions in many areas. According to history record, the relationship between a rising power and a hegemonic power often ends up with severe conflicts, even wars. (Helal, 2019) Although history and theory provide several insights into the factors that could reduce the likelihood of major power war between the US and China, the situation is becoming worse. (Mastro,2018)Besides the global economic and political conditions, there are tariff and non-tariff barriers and higher social risks along with the OBOR economy. The establishment of a free trade area can reduce and break down trade barriers. (Liu, Cai&Han,2019)However, a free trade area is not easy to establish. The Regional Comprehensive Economic Partnership (RCEP) is a proposed free trade agreement in the Asia-Pacific region and it took several years to reach an agreement. Unfortunately, the Indian government pulled out of the deal at the last moment in 2019. (Wikipedia) There are also many security concerns and threats about the OBOR. Take CPEC for example. There are Pakistan's security situation, regionalism and security environment, Terrorism and militancy, Uyghur issue, ISIS, India-Afghanistan, and Iran nexus and the discontentment of the USA. (M. Siddiqui, 2019)

# LITERATURE REVIEW

## 2.1 The rise of China

Since the open-door policy and economic reforms in the early 1980s, after a period of growing fast economically, China has become one of the leading players in the world. At the same time, China is often considered a potential superpower. According to western scholars' researches, two competing theories of international relations can be applied to China's ascension. The first one is the offensive realist model, which argues that China's continued

growth in Asia will lead to a direct security competition with the US and increase the probability of war between the two great powers. The second one is against those assumptions of China's rise, particularly its 'new security concept' that seeks to preserve its interests via economic interdependence and common goals. (Yunus,2019)The rise of the latest power does not always necessarily depend exclusively on military or economic power but is largely influenced by the welfare and way of exercising power constituting elementary bargaining and conciliation. (Hosain&Hossain,2019)As it became a leader in international trade, China began to invest abroad massively. The BRI stands for the next stage in China's political and economic opening-up to the world. According to China's promise, It will rewrite longstanding rules for international development and investment in countries that have been historically overlooked. (Begleiter,2019)

# 2.2 Sustainable Development: The Challenges and Opportunities

Sustainable development has become the primary objective in the development process, and transportation and infrastructure are essential factors. The East Asian economies grew fast and successfully industrialized after the Second World War. The flying geese paradigm is one of the theories explaining the success of the East Asian experience. It shows that when the Asian economies industrialize, there will be a regional hierarchy. The production of industrial goods with mature technology would move from the more advanced countries to the less advanced ones. (Al-Fazari&Teng,2019)In the whole world, several kinds of economic corridors strategies have been applied for economic development and they can economic growth stability. (Menhas, Mahmood, improve and Safdar&Hussain,2019)OBOR is China's real actions to take a greater role in global development and create a trade network that will be based in China. (M., S., & S.,2019)Through the OBOR Strategic Decision, by promoting the development of the Chinese economy, China has laid a solid foundation for realizing the great dream of Chinese rejuvenation. (Ye, Zhang, Li& Qiu,2018) OBOR will likely promote the development in economically backward areas of the region, including the underdeveloped provinces within China itself. (Yunus, 2019) CPEC is the key point of the Belt and Road Initiative. It will boost China's trade from the Arabian Sea via Pakistan to Central Asia, the Middle East, and Europe. (Menhas, Mahmood, Tanchangya, Safdar&Hussain, 2019) The main objective of the CPEC projects is to meet the increasing demand for energy in Pakistan and China. In the meantime, Chinese investment will advance the development of improved health, education, and skills development. Additionally, CPEC also demonstrates the potential geopolitical impacts of BRI. (Begleiter, 2019)

Besides those strengths, there are also some weaknesses in CPEC. There is a view that the BRI member countries are increasingly worried that the advancement of China's soft power through OBOR may soon become a hard power. (Harutyunyan,2019).Pakistan is a developing country and there are lots of external and internal issues. The stakeholders are judging the CPEC and looking at their interests. Pakistan is a victim of terrorism and extremism and china also has security concerns, especially Xinjiang.(Siddiqui, 2019) As far as domestic challenges, Political Controversies about CPEC in Pakistan are concerned, the CPEC was criticized on political grounds, blaming that it is a Punjab-dominated project. (Khan& Khan, 2019) In Pakistan, center-province relations are complicated and problematic. Each one of the provincial governments, regional and provincial political parties, and other stakeholders has its own opinion. Thus China and Pakistan struggle to achieve consensus on many aspects. (Hussain, 2018) There is also the need to avoid excessive debts and unsustainable projects. A good example is the Hambantota Port project of Sri Lanka. (Al-Fazari&Teng,2019)

## 2.3 China-Pakistan Economic Corridor (CPEC)

China and Pakistan are in good relations since 1949. By CPEC, a new relationship is going to be established that concentrates more on economic, trade, energy, infrastructure, and investment cooperation. (Menhas, Mahmood, Tanchangya, Safdar&Hussain, 2019.) The concept of the CPEC was first brought by Premier Li Keqiang during his visit to Pakistan in May 2013. Until now, the two governments have brought a further plan, including building highways, railways, oil and natural gas pipelines and, optic-fiber networks. (Wikipedia)CPEC can be divided into four project types: Road and Rail Infrastructure, Energy, Gwadar (the Port city is so significant it counts as its own), and Others (includes communications infrastructure, social programs, and development of special economic zones). (Begleiter, 2019) It will be executed in the short term, mid-term, and long-term phases by 2017, 2025, and 2030. The main focus of the CPEC projects is to fulfill the increasing demand for energy in Pakistan and China. (Menhas, Mahmood, Tanchangya, Safdar&Hussain,2019)The CPEC is a framework of regional connectivity. It will not only benefit China and Pakistan but will have a positive impact on Iran, Afghanistan, India, the Central Asian Republic, and the region. It will provide peace, development, and a win-win model for all of them. (CPEC website)

# 2.4 The Challenges of CEPC

# **2.4.1 Security Threats**

The great challenge for the OBOR is security threats. Pakistan has been facing security threats both internally and externally and new security threats and challenges have been emerged both traditional and non-traditional. (Siddiqui, 2019) Modern terrorism is a post-9/11 phenomenon. A large number of people who died in these terror attacks were ordinary citizens and, in certain cases, some foreigners lost their lives, too. (Hussain, 2018) TTP, Al-Qaida, and Jundullah are the most visible challenging banned organizations for the implementation of CEPC. (Robina, Shah&Abbas, 2019) CPEC has lifted tensions in China's Xinjiang and Pakistan's Balochistan Province, and the violence has accelerated tensions among Pakistan, India, Afghanistan, and the United States. (Begleiter, 2019) In Xingjian, the separatist movement, like the "East Turkistan" organization, can harm the economic interests of both the Chinese and Pakistani communities. (Vishwakarma, 2019) Providing and ensuring the security of the Chinese personnel and project sites is a crucial challenge for Pakistan. (Khan&Khan, 2019)

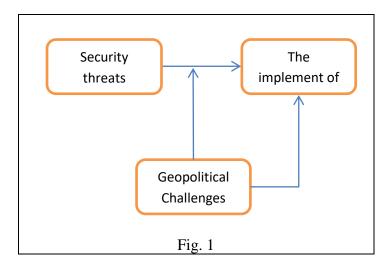
# 2.4.2 External geopolitical challenges

According to western scholars, China seeks to acquire regional hegemony and contain US influence by utilizing the OBOR. Moreover, OBOR is China's means of containing a fellow emerging power in the form of India. Lastly, perhaps China will specifically look to suppress Japan, largely because of its significance to the US. (Yunus, 2019) These countries have been plotting conspiracies at the regional and international levels to sabotage the Project. Meanwhile, the fifth column is busy creating mistrust in the Pakistani Society and governments in Pakistan. (M. Siddiqui,2019)The administration of Donald Trump has accused China of revisionism and an attempt to destroy the current world order and started the "trade war" between the US and China. (Harutyunyan, 2019) The USA has strengthened military cooperation with countries like Australia, Japan, and India towards a policy of "containing China." (K. Siddiqui,2019)It's also creating obstacles by supporting Baluch separatists, terrorists, and other separatists. (M. Siddiqui,2019)India refuses to participate in the BRI and considers the BRI as a threat. The CPEC is already a source of conflict and competition between Pakistan and India. (Begleiter, 2019) However, some Indian scholars interpret that CPEC ignores India on purpose and doubts the Chinese have an interest in bringing India for whatever reason(Zaidi,2019)The Indians think that the CPEC projects are

countering India's security and it will put India under even more pressure, so they strongly oppose the CPEC by creating troubles to interfere the project. (Vishwakarma, 2019)In 2019, India and Pakistan have engaged in a military confrontation across the border in Kashmir. **Besides** wars, there are tons of confrontations like this since independence(Wikipedia)India has offered supports to terrorists in Pakistan and Afghanistan. It also supports various NGOs trying to mislead the international community. Additionally, The Indians are airing misgivings and arousing a fear psychosis. Furthermore, India is building Chabahar Port to compete with Gwadar and trying to establish a nexus against CPEC. (M. Siddiqui, 2019) The foundation of Chabahar port is also providing an alternate port to European and Asian markets near Gwader. (Robina, Shah&Abbas, 2019) Despite Russia want to join in BRI to attract investment, Moscow fears that the expansion of China has an undesirable influence in its traditional sphere. (Harutyunyan, 2019) Some of the Gulf States are doubting CPEC. The Gulf states are concerned about the presence of the Chinese Navy in the region and worried that Iran's army will become a strong force. (M. Siddiqui, 2019)

There are still other important factors, like the internationalization of the renminbi and the political relationships between member countries, influence the success of the BRI. (K. Siddiqui,2019)To this article, the research only considers the impact of the Security Threats and External geopolitical challenges on the success of the initiative.

# 2.5 Conceptual Framework



According to the information above, under the global economic and political situation, the BRI is facing many challenges. Security threats and external geopolitical challenges are the great challenges of the OBOR. There is a negative correlation between security threats and the implementation of the BRI, and the geopolitical challenges harm the implementation of the BRI. The security threats are mostly terrorism and extremism and the external geopolitical challenges are mainly from the regional and worldwide powers. They both heavily affect the successful implementation of the initiative. Besides, the geopolitical challenges have a strong contingent effect on security threats. Those major powers can find a way to use those security threats to interfere with the OBOR, as it can modify the original relationship between security threats and the implementation of the BRI. This article will analyze and explain the causes of the challenges.

#### RESEARCH METHODOLOGY

## 3.1 Method

Qualitative method is used in this research. Qualitative research methods are based on the explanation and analysis of an issue so that it will result in a conclusion. The systematic discussion will be arranged so that the issue can be understood easier. The data sources in this research are in forms of the already existing reliable news articles, both national and international regarding this issue, and similar sources of information as the data source.

## 3.2 Geopolitical Challenges

Regarding CEPC, in this aspect, most of the pressures come from global power, America, and the regional power, India. Both of them incline to restraint China and India wants to rule the subcontinent.

#### 3.2.1 America First

## 3.2.1.1 the Development of America's Strategies

We take it for granted that the United States is the most powerful country on Earth today. The US is so powerful for many reasons. Other than its size, It has the strongest military, the biggest economy, the most innovative technology. However, it took a long time for America to reach its peak and become the most major power. According to Max Fisher, it is not a peaceful rise and mostly by 'wars', nationally and internationally. (Fig. 2)



Since the US stood on the stage of the world in 1867, except the growing of its territory, it expanded his influence gradually, economically, militarily and ideologically.(Fig. 3)



Although the two world wars devastated Europe and Asia, and Americans paid a lot, the US came out of the war far more powerful by everyone else's decline. Finally, it overtook the empire of the UK and became the leader of the western world. (Fig. 4)



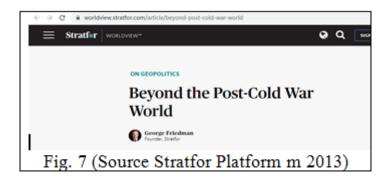
From 1946 to 1991, there was a period of geopolitical tension between the Soviet Union and the United States and their respective allies, characterized by an aggressive arms race, proxy wars, and ideological bids for world dominance, which is known as the Cold War. (Fig. 5)



The Cold War was a series of events where anything the west did, the USSR would respond by doing the same. Throughout the Cold War, communist and capitalist nations tried to out-do each other, competing to develop the best technologies and weapons. At the same time, the United States and the Soviet Union avoided direct military confrontation in Europe and engaged in actual combat operations only to keep allies from defecting to the other side or to overthrow them after they had done so. (Fig. 6)



In late 1991 the Soviet Union collapsed and the Cold War had come to an end. Three things defined the post-Cold War world. The U.S. power is one of them. The post-Cold War world had two phases. The first lasted from Dec. 31, 1991, until Sept. 11, 2001. The second lasted from 9/11 until now.(Fig. 7)



Since the end of the Cold War, the western world has begun to move toward arming international human rights advocates with much stronger legal powers. The NATO air war against Serbia in the spring of 1999 was considered as a "precedent" for an international law of human rights—"a law that ranks higher than the law which protects the sovereignty of states."Additionally, it was launched by NATO on its initiative without the approval of the UN Security Council at the very beginning. Ironically, when it comes to some topics involving those western countries, especially America, the resistances arise and there is always an exception.(Fig. 8)



The American economy was in a worse and worse state in the time of Reagan. In 1985 the Americans decided to force their 'trading partners' and rivals to sign the Plaza Accord to correct the US deficit, which led to the lost decades of Japan.(Fig. 9)



Since the September 11 attacks, America launched the Global War on Terrorism. In March 2003, U.S. forces invaded Iraq vowing to destroy Iraqi weapons of mass destruction (WMD) and end the dictatorial rule of Saddam Hussein. When WMD intelligence proved illusory and a violent insurgency arose, the war lost public support. (Fig. 10)



At the uprisings of the Arab Spring, some American government-financed organizations were promoting democracy in authoritarian Arab states. The United States' democracy-building campaigns played a bigger role in fomenting protests than was previously known. (Fig. 11)



In 2013, the former contractor for the CIA, Edward Snowden revealed to the media details of numerous global surveillance programs. Other than China and America, the NSA had also spied on his allies.(Fig. 12)



# 3.2.1.2 Relations with China

After backing the Nationalists against invading Japanese forces during World War II, since 1949, the US has changed its strategies towards China many times. The relations between those two powers has become a complex mix of intensifying diplomacy, growing international rivalry, and increasingly intertwined economies.in reality, the US has always employed its "containment strategy" towards China.(Fig. 13)



Asia's first island chain encloses the East Asian coastline. Each annual Pentagon report on Chinese military power includes a map that traces the island chain from the Philippines westward to central Vietnam. Once the islands are sealed off, the chain would present a formidable barrier to exit from or entry into the China Seas.(Fig. 14)



After the 2008 economic crisis, the US economy as a whole declined. To restore its declining economy and sustain a leading position in the Asian region, the United States began to pivot to Asia and bias its global strategic layout Asia, and Obama employed a combination of political, security, and economic policies to compete with China. (Fig. 15)



Since Donald Trump took the office of the American President, the US and China face rising tensions in many areas. Donald Trump has always despised trade deficits. The world's two largest economies have been locked in a bitter trade battle. (Fig. 16)



In 2019, US President Donald Trump has signed a bill that supports prodemocracy protesters in Hong Kong. The Human Rights and Democracy Act stipulates that Chinese or Hong Kong officials deemed responsible for violating human rights could face sanctions and visa restrictions.(Fig. 17)



The United States and China have reached a partial trade agreement. But tensions between the world's two biggest economies are likely to persist in 2020 as Beijing and Washington enter the second round of trade talks that are expected to be more difficult than the "phase one" process.(Fig. 18)



## 3.2.2 India Dream

Following the end of British rule, British India was divided into India and Pakistan in 1947. Since India gained its independence, it has waged four wars intermittently by the 1970s against Pakistan and China. The Kashmir and Southern Tibet issues have been the main cause, whether direct or indirect, of all major conflicts between those countries. (Fig. 19)



In summer 2017, there is a 73-day standoff high in the eastern Himalayas between Indian and Chinese troops, where their borders meet those of Bhutan. when Bhutan noticed Chinese personnel trying to extend an unpaved road on the Doklam Plateau, Bhutan alerted India, which sent troops to halt the work. Since the crisis, the border is still disputed, and both sides are still watching out each other. (Fig. 20)



The Kashmir issue is a historical grievance between India and Pakistan since the independence of the Indian subcontinent. Both India and Pakistan claim to own the entire Kashmir, but both parties control parts of Kashmir. In February 2019, a convoy of the Indian Armed Police Force was hit by a car bomb in Indian-controlled Kashmir and an air war took place at the border.(Fig. 21)



In August 2019, the Indian government made a controversial move to revoke special status for Indian-controlled Kashmir. India's decision has provoked outrage in Pakistan and global worries over a fresh armed conflict. The move has worsened the already-heightened tensions with neighboring Pakistan, which downgraded its diplomatic relations with India and calling on international allies to take its side. (Fig. 22)



#### 3.2.3 deduction

According to the development of American strategies, America first is always the long-standing strategy, even before US President Donald Trump publicly announced it. America fears a challenge to its supremacy. Whichever country becomes America's most important competitor, America will try to contain it. To reach its aim and continue to have a leading position, the US will employ various means to suppress other countries. Currently, the primary purpose is to contain China. In recent years, the U.S. economy has gradually become depressed, China has an increasing influence on the word, and its position has gradually strengthened. OBOR is an opportunity for China to take a greater role in global development and create a trade network that will be based in China. Through the OBOR Strategic Decision, by promoting the development of the Chinese economy, China has laid a solid foundation for realizing the great dream of Chinese rejuvenation, which has made the United States feel a serious threat. The most dangerous frontier between China and America today is the Western Pacific: Taiwan, the South China Sea, and a series of shoals and islands. Strait of Malacca and South Sea is China's lifeline as most Most energy supplies and European trades rely on them. Along the island chain, most countries and regions are allies of America. Nowadays the substitutes of the trades are the first and the second Eurasia Land Bridges and they are linking many countries. Like we talked above in the article, as there are no trade agreements between some countries, the tariffs will be a huge problem. Meanwhile, the RMB is still not internationalized and every country has a different financial system, under the existing international financial system, it's not economical. Furthermore, most European countries are America's allies and share the same ideology as America. They are naturally afraid of China because of that they can't understand China and the history of the Cold War. Once in the time of state-wise confrontation, China will be a sitting duck. Of course, in this situation, China can depend on the domestic market and get energy from Russia. However, according to historical lessons, you can learn that Russia is the most threatening neighbor.CPEC is the most important substitution in this sense. This is the direct reason why America would like to sabotage the initiative by all means. China is currently experiencing problems with overcapacity production, rising costs, especially in laborintensive industries. In the long run, The OBOR can solve these problems and open new destinations for Chinese investment and business. As the flagship of the initiative, CPEC has already become the main target. As the largest country in South Asia, India always considers it as the successor of the British Empire in South Asia and has a dream of unifying South Asia. As the only rival of India in South Asia, once Pakistan becomes stronger, it will greatly hinder India's process of unifying South Asia. CPEC just provided the opportunity to Pakistan, especially when the global economy is bad. On the other hand, since the Sino-Indian War in1962, India sees China as an imaginary enemy and worried about China's intervention in South Asia. Until now, not only has the border issue not been resolved in the past halfcentury, but there have also been tense military confrontations. And the trade deficit is another key irritant. Furthermore, India sees China as a direct obstacle for him to become a world power and Like to compare with China. But it becomes more and more anxious as the gap is widening. On the other hand, India can't objectively recognize its strength and like to confront it directly. There is no bottom line for it to do such things, hence it is difficult to predict his actions, adding a lot of instability. The US and India have been hatching conspiracies at the regional and international levels to sabotage the Project. Meanwhile, the fifth column is also working in creating mistrust in the Pakistani Society and various provincial and central governments in Pakistan.

# 3.3 Security Challenge

On September 11, 2001, Nineteen men hijacked four US commercial airplanes and carried out suicide attacks against targets in the United States. The attack was orchestrated by al Qaeda leader Osama bin Laden. Almost 3,000 people were killed during the 9/11 terrorist attacks, which triggered major U.S. initiatives to combat terrorism.(Fig. 23)



Modern terrorism is a post-9/11 phenomenon. A large number of people who died in these terror attacks were ordinary citizens. Pakistan is home base to some terrorist groups that keep the region unstable and contribute to the spread of global terrorism. A series of military and law enforcement operations have been carried out against terrorist groups. The perceived weakening of al-Qaeda and the T.T.P. invited a newcomer to the Pakistani jihadist scene: ISIS. Another serious trend is the changing tactics of terrorist groups operating in Pakistan. In contrast to previous years, the number of attacks has declined, but the current wave of attacks has resulted in heavy casualties. (Fig. 24)



Many terrorist organizations with various ideological profiles have repeatedly justified attacks against U.S. interests as punishment for the special relationship between the United States and Israel. There is some evidence that a favorable U.S. policy stance towards Israel may indeed contribute to more anti-American terrorism for terrorism originating from the Middle East and Northern Africa.(Fig. 25)



An unstable Afghanistan risks also destabilizing Pakistan, and as a result, the entire region of Central and South Asia. Thus Pakistan's cooperation is crucial for effectively countering terrorism in Afghanistan. The persistence of militancy in Afghanistan and the resilience of terrorist groups operating there is the product of external sponsorship as well as weak, corrupt, and inadequate governance in Afghanistan. Improving Afghan governance, not merely beefing up military efforts and countering external sponsors of terrorism in Afghanistan, is critical. Good governance is a long-term project, and is, of course, not sufficient. (Fig. 26)



The East Turkestan Islamic Movement (ETIM) is a Muslim separatist group founded by militant Uighurs. The Muslim separatist group, based in the Xinjiang province in northwest China, which shares borders with eight countries, including Afghanistan and Pakistan. Some experts say ETIM is an umbrella organization for many splinter groups, including ones that operate in Pakistan and central Asia. Chinese leadership worries that Xinjiang separatism has and will continue to gain support from transnational Muslim extremists, with possible ramifications both for other latent Chinese separatist movements without a Muslim connection and for other Chinese Muslims without a separatist agenda. The US and China both believe there is a link between ETIM and al-Qaeda. Providing and ensuring the security of the Chinese personnel and project sites is a crucial challenge for China and Pakistan. (Fig. 27)



The Taliban followed a radical form of Islam and enforced punishments like public executions. Although the Taliban regime collapsed and its fighters melted away into Pakistan, it still had a lot of support in areas around the Pakistani border and made hundreds of millions of dollars a year from the drug trade, mining, and taxes. As the Taliban carried out more and more suicide attacks, international forces working with Afghan troops struggled to counter the threat the re-energized group posed. After 18 years of war, it's hard to argue the US mission has been fulfilled - the Taliban may play a part in ruling Afghanistan again after the peace agreement is signed. (Fig. 28)



The United States has a long history of backing terrorist groups. During the 1970s The US openly supported the Jamaat-e-Islami terror group in Pakistan. Moreover, the CIA created Osama Bin Laden and feed his organization during the 1980s. America's relationship with Al Qaeda has always been a love-hate affair. Depending on whether a particular Al Qaeda terrorist group in a given region furthers American interests or not, the U.S. State Department either funds or aggressively targets that terrorist group. Even as American foreign policy makers claim to oppose Muslim extremism, they knowingly foster it as a weapon of foreign policy.(Fig. 29)



Recently, the US and the Taliban have signed an agreement to pave the way towards peace in Afghanistan after more than 18 years of conflict. Talks between the Afghan government and the Taliban are due to follow. Under the agreement, the militants also agreed not to allow al-Qaeda or any other extremist group to operate in the areas they control. (Fig. 30)



The US supported the Taliban when the Soviet Union invaded Afghanistan. They have already reached an agreement and America can focus its attention on the issues with China. However, if the agreement is not performed well, the situation of this area will become even worse. Some Indian politician has called for recognizing Balochistan as a separate country. India has a major role in this ongoing insurgency in the southwestern province of Pakistan. India is plotting ethnic violence in Balochistan to sabotage the CPEC. India's involvement in Balochistan is in-line with its aims of dominating the Arabian Sea. India has a major to play in instigating and propelling anti-Pakistan elements, not only as a deterrence but only to prevent China and Pakistan to thrive in the region and beyond. (Fig. 31)



To dismantle CPEC, America continues to create and support discord in Pakistan's Balochistan province which is the heart of the CPEC. India has a major role in this ongoing insurgency in the southwestern province of Pakistan, with the CIA and India's Research and Analysis Wing (RAW) jointly colluding in their Balochistan project. After 9/11, India sought enhanced relations with Afghanistan, which borders Balochistan, to squeeze Pakistan between a pro-India Afghanistan and an already hostile India. The America-India nexus is complicit in all these crimes against Pakistan and China. America is continually supporting India's machinations of chaos in Balochistan and other regions of Pakistan.(Fig. 32)



As we have discussed above, the US is creating obstacles by supporting Baloch separatists, terrorists, and other separatists. Under the support of the US, the Uighur, the East Turkestan terrorist force, and the terrorist of Pakistan are posing a great security threat to the CPEC future. At the same time, India has offered supports to terrorists in Pakistan and Afghanistan.

The Pakistani military has been conducting terrorist operations in the northwestern part of the country. With the deepening of operations, the security situation in Pakistan has improved. The economic corridor is to improve the livelihood of Pakistan through peaceful construction and economic development, to achieve the purpose of improving and eventually removing soil generated by terrorists. (Fig. 33)



Terrorism is a worldwide issue. It needs the cooperation of the main global and regional powers to solve the problem entirely. However, due to some personal reasons, it's hard to reach an agreement.

#### **RESULTS AND FINDINGS**

Geographical factors and the long-standing China threat theory have led to the Belt and Road Initiative being metaphorically referred to as geopolitics. The United States believes that the OBOR related projects are not for achieving win-win economic development, but for promoting political influence, expanding China's military presence, and reflecting China's security intentions. The construction of CPEC may face some opposition from the United States, because China's influence in the region and its strategy to enter the Arabian Sea may not be accepted by the United States. Besides, the Gwadar Seaport, which may be used as a Chinese naval base from the view of the US, is of great geostrategic significance to the US power in the region. CPEC may also challenge the United States' position in the Middle East and its interests in the resource-rich regions of the Persian Gulf and Central Asian countries. The United States may be developing a strategy to deal with China's expansion in the region.

With the shift of US strategic focus, the Asia-Pacific region will become more complicated in the future. As a super hegemony that controls the global oceans, the United States has an advantageous geographical location. No matter which country it cooperates with, no more land infrastructure construction is needed. Ports are sufficient. Because the global ocean is the roads and railways of the United States, the United States does not need to export infrastructure. It only needs a strong military force to control the maritime transport channels. However, the problem is that China is land-based. However, China's land link advantages with these countries have not been reflected at all, China will have to detour thousands of kilometers from the ocean to do business with European, Middle Eastern, and Indian Ocean shore countries. and its long sea shipping routes will pose a huge challenge for China to cope with many risks in the future.

While India is opposed to the possibility of the China-Pakistan Economic Corridor passing through Pakistan-controlled Kashmir, it is also worried that China may use the BRI to expand its influence in South Asia. In particular, China will enter the Indian Ocean and gradually marginalize India with its economic strength. India's awareness of South Asia's backyard has led it to actively prevent China from playing a greater role. For a long time, India has been very vigilant and skeptical of the entry of the Chinese Navy into the Indian Ocean and South Asia. Concerning India's concern that the port of Gwadar will become the Chinese navy's overseas strategic base, China has repeatedly emphasized the role of the port of Gwadar in strengthening regional economic and trade relations. The bilateral cooperation initiative between Pakistan and China has increased India's worries and brought some

sovereignty concerns to India, as the corridor can resist its hegemonic design in the Indian Ocean, the Arabian Sea, and the Persian Gulf. Also, CPEC will have direct land routes to Afghanistan, Iran, and Central Asian countries, which India cannot reach. And, although China is one of India's largest trading partners, India may have long-term security concerns over China's control of Pakistan's Gwadar seaport.

Pakistan's terrorist group's opposition to the BRI is not necessarily just for China. First, because the BRI is a household-funded huge project in Pakistan, its destruction can be used by terrorist organizations as a means of propaganda; second, it will further undermine Pakistan's security situation and undermine China-Pakistan friendship to achieve its political goals. Third, the BRI is a project that will benefit the development of the region. Terrorist organizations also seek to gain benefits from the project. Fourth, terrorist organizations may attack The CEPC project as a way to strengthen alliances with Pakistani anti-government organizations. Finally, those actions can help them strengthen their relationship with their support and get capital to sustain their organization.

On the issue of terrorism, the Chinese government has always emphasized that it opposes all forms of terrorism, firmly supports the strict crackdown on terrorist crimes under the law, and firmly supports the efforts of the international community to eliminate terrorism. Although the Pakistani military has deployed special security forces to specifically protect the safety of Chinese people and Chinese-funded projects in Pakistan. However, Pakistan is a country with a relatively fragile political situation, especially in the border areas. Tribal, religious, and big family powers are relatively large, and government control is limited. This has also created the soil for the survival and development of terrorists. Domestic terrorist organizations have dispersed their organizational structures to survive. Action in different parts of Pakistan has further penetrated other Pakistani cities. The security situation in some areas along the China-Pakistan Economic Corridor is still not optimistic. The CPEC depends largely on the attitude of the Baluchistan local forces and the ability of the Palestinian Central Government to maintain stability in Baluchistan, especially around Gwadar. There are now several separatist organizations in Baluchistan. Some terrorist organizations are also active, and foreign forces are involved in and behind them. The Baluchistan separatist forces are particularly concerned about the CEPC.

#### CONCLUSION AND DISCUSSIONS

We say that the "Belt and Road" is peaceful, win-win and development, and is beneficial to everyone. In the world, some people say it is a new colonial system, and some people consider this as an expansion of China's soft power. Not all countries will put economic construction in the first place. China has made mistakes before, but it was later corrected. Without economic construction as the center and the deep nesting of the global economy and surrounding economies, it will be difficult for China to obtain greater industrial resources in the future to support the impact on the global division of labor and wealth distribution.

The world as a whole is an effective way to solve many problems with global influences. No single 'regional' solution is isolated and separated from its broader context. The BRI is not a geopolitical strategy. But this doesn't mean that we have to deliberately exclude the geopolitical significance of the BRI. The intention of the OBOR is the international situation that China is facing, that is, encountering various siege and siege by the United States. China needs to use this project to break through some barriers, create a new situation for the economic, trade, and politics of the coming decades, and provide a more secure and controlled environment. Looking at the posture of the United States, it is going in

the direction of decoupling from the Chinese economy. Then China must plan, especially with the surrounding environment that Japan, South Korea, and Singapore, which are the most developed areas around China, are all American allies, while some other Asian countries are very friendly, but they are still under development and their strength is weak. China needs greater investment to create a multi-layered international economic circle to meet future geopolitical challenges.

The CPEC is located at the intersection of the Silk Road Economic Belt and the 21st Century Maritime Silk Road. Pakistan is also located at the junction of South and Central Asia and near the Arabian Peninsula. The geographical location is crucial. This also determines the strategic importance of the CPEC in the BRI. The CPEC is not just an infrastructural line. Pakistan is China's all-weather strategic partnership. Pakistan is firmly on the side of China on core issues of concern to China and has a high degree of mutual trust between the two sides. Islamabad is a bridge between China and the entire Islamic world. Friendship with Pakistan has established a basic foundation for China's friendship with the entire Islamic world. Second, a developing and stable Pakistan is the goal that China's diplomatic strategy should pursue. By helping Pakistan to build energy and infrastructure that severely boost its economic development, China can give Pakistan real economic benefits and provide Pakistan with a stronger impetus for economic development. It can develop Pakistan and the entire western region of China, which is strong support for western China and Pakistan. In the future, we will be more prepared when facing mass shock from India. Helping Pakistan's economic development helps alleviate current security and strategic concerns in Pakistan.

There are other things we need to study in the future. The construction of the CPEC will help China and other South Asian countries to promote the "Belt and Road" and set a model for them. The construction of the CPEC does have a certain significance for China to influence the situation in Afghanistan and ensure energy security. For landlocked countries like Afghanistan, CPEC is crucial in a geostrategic sense. Central Asian countries are located in the heart of Eurasia. Eurasia offers exclusive advantages as an important transportation channel. All regions and countries, including Pakistan and China, want closer cooperation with these countries. At the same time, all those five countries want to enter the ocean, and the CPEC project can diversify energy channels. Central Asian countries attach great importance to transportation infrastructure, and the lack of transportation infrastructure remains a major obstacle to their slow cooperation with international markets.

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# THE IMPACT OF 5G ON TELECOMMUNICATIONS INDUSTRY

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#### INTRODUCTION

#### 1.1 Background of the study

Recently 5G technology is more and more important in all the world. It means more faster mobile phone internet speed level. At the same time, due to the development of network speed and various technologies, some technologies that could not be realized have been realized. Such as real-time communication transmission and various information and big data exchange development.

Manufacturing has evolved over the course of centuries from the days of handmade goods to the adoption of water- and steam-powered machines, the invention of mass production, the introduction of electronic automation, and now beyond. The paper looks at the evolution of the Industrial revolution and the technologies that have impacted their growth. The proposed features of 5G technologies are listed and described how these features impact the Industries of the future, leading to Industries 4.0. 5G pro- mises to be a key enabler for Factories of the Future, providing unified communication platform needed to disrupt with new business models and to overcome the shortcomings of current communication technologies.

Defining a new air interface (NR) was the focus of the first version of the 5G standard. Previously, the development of a new generation of wireless base stations focused on introducing new modulation and coding schemes, but the focus of 5G is how to flexibly support various terminals and services with very different characteristics, different types of deployment, and from less than 1Ghz to millimeter waves Multi-band distribution.

In order to support the visible increase in data volume in the future, 5G standardization has included innovative technologies in large-scale antenna systems, beamforming, and energy efficiency. In addition, 5G standardization includes three other core areas:

- Security: Enhanced user untraceability to protect user privacy and enable flexible identity management
- 5G Sustainability: Design principles shift from "always online" to "always available" for high energy savings
- 5G core network: Adopt the concept of network slicing and distributed cloud suitable for commercial use
- 5G has great flexibility. With 5G support, industries can use connectivity, virtualization, machine intelligence and other technologies to change existing business processes and models, which will be part of the next industrial revolution.

#### About mobile phone:

Mobile phone single product profit will be lower. As the mobile phone occupation rate is saturated, and the demand for performance and functions of mobile phones in the 5G era is eroded by more wearable devices, the demand for mobile phones will continue to decrease. What's more notable is that in the 5G era, more and more smart devices will blow

out, and the demand for common parts in smart devices and mobile phones will increase. As we all know, for products with greater demand, with the effect of scale, the price of a single product will become lower and lower, and the information on procurement and supply and demand will become more and more transparent. As a result, the manufacturing cost of mobile phones will be lower and lower, and profits will be lower and lower.

Mobile phones can connect more and more devices. The Internet of Things will usher in the spring of the 5G era, and various smart devices will be interconnected through 5G technology. As a result, there is an increasing demand for portable device management of diverse devices. As a 24-hour online communication terminal, a mobile phone will be a better choice to manage a series of devices on the go.

Mobile phones will become less and less useful as communication tools. Thanks to 5G, many devices have communication capabilities, the manufacturing cost of communication equipment will be greatly reduced and large-scale use. For example: smart refrigerators, smart dining tables, car communication, smart insulation cups and other commonly used items can meet people's communication needs.

#### 1.2 Problem statement

With the development of technology and the maturity of 5G technology, the 5G of communication network has become a trend. This article has aimed to explore the impact of 5G technology on the communication industry, and discuss what important changes 5G technology can bring.

# **1.3 Research Question**

How does the arrival of 5G impact on the telecommunications industry?

# 1.4 Research objectives

This study aims to discover the impact and prospects of 5G on the telecommunications industry. The important development of 5G for telecommunications, and the technology applications that can be expected in the future.

#### 1.5 Significance of research

The significance of this study discovery the impact and impact of 5G on the telecommunications industry in today's social environment, Explore the promotion of 5G for the telecommunications industry and how the telecommunications industry can maintain its position in the development of 5G.

### LITERATURE REVIEW

#### 2.1 data network transmission

### 2.1.1 Wireless data network transmission background

Previously we used fiber to connect the network but now we have a wireless data network. With the development of technology, mobile data networks have gradually evolved from 2G networks to 5G networks.

1G, 2G, 3G & 4G ("G" stands for "Generation") are the generations of wireless telecom connectivity. 1G (Time Division Multiple Access and Frequency Division Multiple Access) was the initial wireless telecom network system. It's out-dated now. The analog—brick phones and—bag phones are under 1G technology. Cell phones era began with 1G. The next era, 2G has taken its place of 1G. Cell phones received their first major upgrade when they went from 1G to 2G. This leap effectively took cell phones from analog to digital.

2G and 2.5G were versions of the GSM and CDMA connections. And GSM is still the most popular technology, but with no internet. Fortunately, GPRS, an additional service, is provided over GSM for the purpose of internet access. GPRS has been developed and thus, EGPRS was created. It's more secure and faster than GPRS. Then 3G came, the new Wireless CDMA technology. It is the first wireless telecom technology that provides broadband-speed internet connection on mobile phones. Further development led to the creation of 3.5G, which provides blazing fast internet connection on phones, up to the speed of 7.2 MBPS. A smart phone can be connected to a PC to share its internet connection and 3G and 3.5G are ideal for this. 4G, which is also known as —beyond 3G" or —fourth-generation" cell phone technology, refers to the entirely new evolution. Developers are now going for 4G (OFDMA), which will provide internet up to the speed of 1 GBPS! It is said to be able to overcome the problems of weak network strength and should provide a much wider network, making sure that the users get high-speed connectivity anytime anywhere. No doubt, 4G will open new doors of revolutionary internet technologies, but for now, 3G and 3.5G are the best. 4G will allow for speeds of up to 100Mbps. 4G promises voice, data and high-quality multimedia in real-time form all the time and anywhere.

We know that the network speed from 4G to 5G will be increased from 100Mbit to 1Gbit, peole don't want to go back to low speed after using faster internet speed, so 5G must be the future mobile phone network standard. Just like 4G today, we can't go back to using 2G network.

# 2.1.2 5G network applications in different fields

Products such as virtual fitting mirrors that can be expected now are not only technological development, but network speed is also a very important factor to realize these products

#### 2.2 Networking

#### 2.2.1 Virtual fitting mirrors

Virtual fitting mirrors require high-speed networks to respond to customer needs, and no one wants to wait dozens of minutes in front of the mirror to load a virtual piece of clothing.

#### 2.2.2 Autonomous driving

Autonomous driving technology combined with 5G network can easily exchange data with other cars, determine the route to form a better autonomous driving network, ensure the safety of passengers, and shorten the travel time.

# 2.2.3 Cloud computing

In addition to cloud computing requires strong computing performance, network speed is also very limited. When the network speed is increased through 5G technology, the speed of cloud computing can be greatly accelerated. At the same time, we know that cloud storage space is almost infinite. The transmission of data through 5G can make mobile big data faster, and perform big data mining and calculation at the same time.

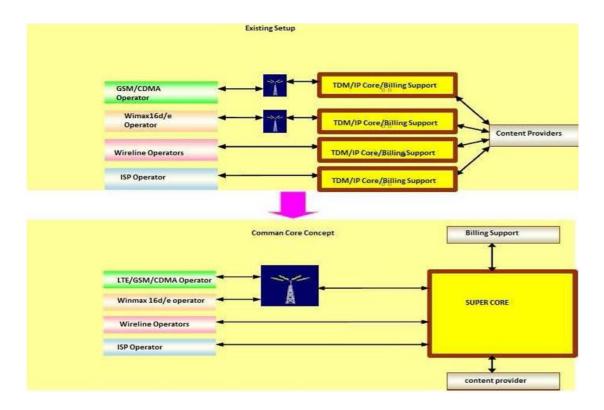
Thanks to the efficient transmission speed of 5G, data transmission performance will also be greatly improved in places where the wired network cannot be connected, but 5G technology is based on the construction of communication base stations, which is also a very favorable development opportunity for the communication industry.

# 2.2.4 5G Super Core Architecture

The Newer Generations from 2G to 5G were always identified by increasing bit rates. As the 4G network provides adequate RF coverage and capacity for high-volume data applications and lower latency for voice applications. Beyond 4G, there will no need for newer technology and wireless standards. This newer technology will integrate network technologies rather than expansion of older technology. New network applications will be

developed to integrate various engineering practices as health care, mechanical, chemical, banking, etc.

Existing telecom networks are in hierarchical ways, where traffic is aggregated at BSC/RNC and then routed to gateways. Flat IP architecture will reduce the burden on aggregation point, and traffic will directly move from base station to the media gateways. When transmission from TDM, ATM platforms to flat network a common ALL IP network will be emerged. Super core is based on IP platform. All network operators can be connected to one super core with massive capacity. Each engineering practice has their own standards. To integrate these standards requires the systematic and time-consuming process. One common architecture is required, which creates a common platform for all engineering practices to regularize the inter connectivity issue as well as knowledge sharing.



# 2.3 An Overview of 5G Requirements

A mobile and connected society is emerging in the near future, which is characterized by a tremendous amount of growth in connectivity, traffic volume and a much broader range of use scenarios. Some typical trends are summarized as follows:

- Explosive growth of data traffic: There will be an explosive growth in traffic. The global data traffic will increase by more than 200 times from 2010 to 2020, and about 20,000times from 2010 to 2030;
- Great increase in connected devices: While smart phones are expected to remain as the main personal devices, the number of other kinds of devices, including wearable devices and MTC devices will continue to increase;
- Continuous emergence of new services: Different kinds of services, e.g. services from enterprises, from vertical industries and Internet companies, etc. will be exploited.

The fifth-generation (5G) mobile communications system will emerge to meet new and unprecedented demands beyond the capability of previous generations of systems.

There are two phases of 5G requirements research by different organizations. Phase 1 focuses on 5G use cases and high-level key capabilities of 5G networks, and can be regarded as the 5G vision stage. In Phase 1, ITU has released the vision recommendation and defined the key capabilities of 5G. 3GPP started the smarter program and studied 5G use cases and requirements. NGMN completed a 5G whitepaper and defined a large number of 5G use cases and requirements. IMT2020 (5G) Promotion Group released the 5G vision and requirements whitepaper in May 2014, which aims to contribute to the ITU-R work in Phase 1. Phase 2 focuses on 5G deployment scenarios and detailed technical requirements. There are two important reports in Phase 2. One is the IMT-2020 technical performance requirements from IMT-2020 (5G) PG plans to complete the evaluation scenarios and the KPI report in the first half of 2016, and will have an impact on the work of ITU and 3GPP in Phase 2 (Fig. 1).

The rest of this chapter is organized as follows. The outcomes of Phase 1, i.e., 5G use cases and high-level key capabilities are introduced in Sects. 2 and 3, respectively. The latest status of Phase 2 including deployment scenarios and detailed technical requirements are presented in Sects. 4 and 5, respectively. Section 6 presents the operational requirements, while Sect. 7 draws concluding remarks.

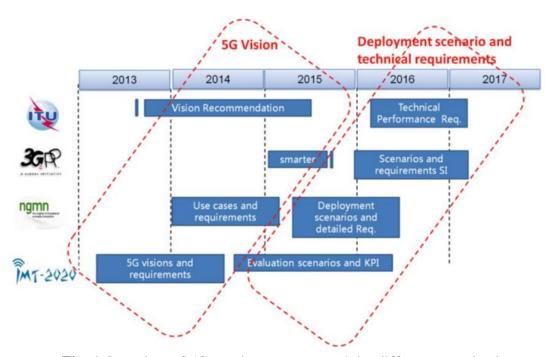


Fig. 1 Overview of 5G requirements research by different organizations

# RESEARCH METHODOLOGY

#### 3.1 Research Design

5G technology is beginning to integrate into our lives. At present, the advanced development of 5G is not very comprehensive. At the same time, due to the recent impact of COVID-19, the global economy is gradually stagnating, and the application of 5G technology has also been suspended. The important impact brought by 5G and the part that 4G can't do are analyzed, and the comparison is used to highlight the importance of 5G technology for the communication industry.

#### 3.2 Research Setting

I choose the survey method for data screening and case analysis to gradually analyze the importance of 5G.

Mainly construct the survey analysis model through the 5G technology development data from China and the feedback data analysis of some companies, and feedback the importance of 5G.

#### 3.3 case analysis

# 3.3.1 The combination of media and 5G technology

Unlike 4G that has not entered the offline life, these three application scenarios of 5G have brought about changes in the way information is reached

Affects all aspects of people's lives and production.

Massive links have drastically changed the meaning of media. Under the "all-media" environment, there is also room for media to survive.

In the information technology ecosystem.

Massive connections rely on 5G traffic density per square kilometer of 10 Tbit / s and 1 Gbit / s user experience speed

Any object can be implanted with chips and sensors, and become a link in the "mass connection", collecting, analyzing and transmitting

Lose digital signals. At that time, all terminals capable of transmitting information had "information dissemination capability", which could be called "media

The definition of media has been widely extended, and the structure and ability of media to collect information has changed from traditional interconnection to

The Internet of Things. This means that everything is a medium, and we will also enter the information dissemination environment of all media.

In the life scene, the user's mobile phone can have the same network connection as usual regardless of the number of regional terminals

Rate, exchange information with others anytime, anywhere, do not worry about the collapse of the network signal when watching the concert, you can also broadcast on the subway

Put the video. High traffic density is sufficient to ensure that the user 's contact information can be stable when the number of connected terminals is extremely large; the user 's hand

The device can also be connected to most physical objects or terminals. For example, the smart home combines automatic control technology with the

Information collection, big data calculation and information transmission, relying on the Internet of Things in the home scene to control home lamps, TVs, and heat

Water heaters and curtains can get a better intelligent experience in the scene of massive connection. Masses in industrial scenes appear more and more

In eMTC and uRLLC application scenarios, large-scale IoT can automatically collect massive data at any time, industrial scenarios

All machines can work under the command of data and algorithms. Information collection and access have become more open and convenient

The rapid and streamlined process has greatly released the cost of human productivity and time.

This means that we can combine 5G technology with cloud technology to give everyone a more personalized service. The network will become more and more personalized in the future, which means that 5G is an essential part of telecommunications.

#### 3.3.2 The embodiment of cloud technology in 5G technology

Cloud computing power and big data value are further amplified, cloud platforms and applications are increased, and information is more intelligent.

According to the "Mobile Market Report" released by Ericsson in November 2018, the number of connected devices is expected to reach 2024.

It is expected to exceed 22 billion units, and it is expected that hundreds of billions of equipment will be connected to the network under full 5G coverage. At this time the sampling information data is too.

Large and complex, the classification and processing of information face greater challenges, and cloud computing requires a smarter network architecture and business

Service mode to solve the problem of processing massive information. Specifically, the computing power of cloud computing lies in big data and artificial intelligence.

Significantly improved under the assignment of the value, with the deep learning of massive underlying big data and artificial intelligence (AI), faster and smarter.

Analyze and process the new data generated by the terminal, and rationally store and check the information through more optimized scheduling capabilities

Cable and dig. Cloud computing will solve larger-scale storage and computing capabilities, and this AI-based, more intelligent.

The cloud computing model will be different from the early server cluster computing.

In addition, cloud platform applications will be more widespread. After the advancement of 5G, the ultimate download rate and user experience make network information.

Transmission has become a convenient way for terminals to carry data, and the enhanced mobile bandwidth service and low latency have liberated the terminal hardware

Software, end users can download network data in real time, no longer requiring excessive hard disk memory. Including games and video playback

Online access can be achieved at gigabit-level network rates, players no longer need to download huge game data packets, and there is no need to download a movie to the phone to occupy memory. "Cloud applications" and "cloud games" are in the millisecond Guaranteed by delay

Into reality. In recent years, Chinese operators are vigorously deploying the cloud computing market, including Alibaba and Tencent are also actively deploying cloud

Services, cloud services market position gradually stabilized. At this time, the cloud platform has become an important area in the entire information circulation.

The realization of terminal intelligence is more dependent on connecting to cloud services through 5G. With the deepening of 5G, the competition for cloud platform services

Competition may increase, and cloud platform applications are expected to explode further.

# $3.3.3~5\mathrm{G}$ technology promotes the transformation of information receiving terminals

5G enhances the networking capabilities of various terminals, greatly shortens the terminal's link to obtain information, and can provide more intelligent information services. This also means that users receive and disseminate information in more diverse scenarios. In addition to using smartphones and tablets.

Mobile media scenarios, future communication scenarios also include new information communication systems for home users and the open Taiwan, these three application scenarios jointly build the terminal ecology of information acceptance. A brandnew information platform based on new scenarios, In the future, the media needs to consider complex factors such as scenes and terminal forms in content dissemination, in order to optimize media content and form to impress consumers.

# INNOVATION AND REFORM OF PERFORMANCE MANAGEMENT MODEL BASED ON THE COMPARISON BETWEEN KIP AND OKR

#### Yunjia MA & Premkamon Jankaweekool

#### **ABSTRACT**

In today's society, the performance appraisal system has become an indispensable part of enterprise management methods. Among them, the KPI system is dominant in enterprises. This article analyzes the application and mutual promotion of the two management modes of KPI and OKR by comparing KPI and OKR. At the same time, it also analyzes the doubts and criticisms against them. The comparison between similarity and difference analysis, and further analysis of the different applications of the two methods in the enterprise put forward their views. It is conducive to enterprises to more clearly choose the performance evaluation system suitable for the enterprise.

**Keywords:** human resource management; performance; key performance indicators; KPI; OKR

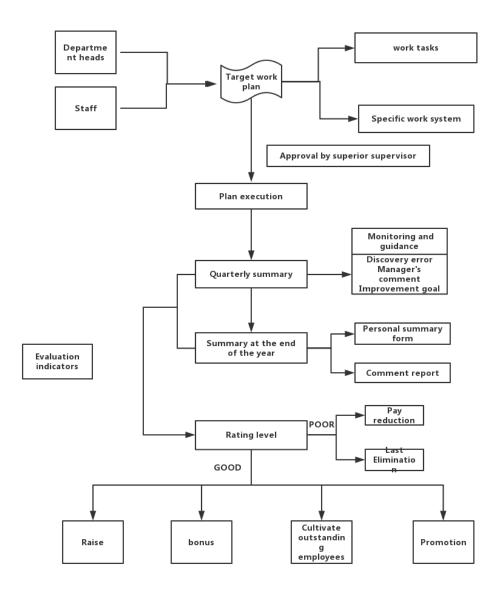
#### 1. Concept

1.1 Key performance indicators (KPIs), also known as key performance indicators, important performance indicators, and performance evaluation indicators, are the most important indicators for measuring the effectiveness of management work. It is a tool for data management and must be an objective and measurable performance indicator. It is a kind of index that quantifies and qualifies the performance of the company, employees and affairs in a certain period. Assistance will optimize organizational performance and plan the vision. The most significant feature of KPIs is the selection of some indicators that have a key influence on the organization through refinement, and the establishment of an assessment model on the basis of refining several of the most representative performance indicators. It simplifies the company's complex performance assessment into evaluation standards, and it transforms the company's strategic goals into internal activities so that company personnel have a clear understanding of the company's goals, thereby working towards this goal, and avoiding the wrong direction of the company's goals.

Italian economist Vilfredo Pareto noticed that the wealth distribution of the British in the 19th century showed an unbalanced pattern. Through survey and sampling research, it was found that most of the social wealth was in the hands of a small number of people; after that, he also combed the early correlations. The data found that this relationship has repeatedly appeared in other countries, and shows a stable mathematical relationship: 20% of society has 80% of social wealth, that is, the distribution of wealth among the population is uneven. The result of this research was called "Pareto Principle" (Pareto Principle). After the Second World War, a Romanian-American engineer, Zhu Lun, applied the law of 28 to Japanese companies and was greatly welcomed by Japanese companies. It greatly promoted the rise of Japanese industry after World War II. It was not until the U.S. economy was threatened that the 28th Law was valued by its industry. In the traditional manufacturing industry in the industrialized era, it is easy to design a set of data indicators for production workers, business representatives, etc. based on their working characteristics to evaluate their work quality and performance. As a result, KPI concepts became widely accepted and used in practice. The so-called KPI, which is the key performance indicator, is based on the

SMART1 principle. The KPI method believes that by setting and analyzing key parameters in the internal operating process, the organization can decompose the strategic goals of the organization into operable work targets, thereby To enable staff in each department and each position to clarify their main responsibilities, based on which to clarify the performance measurement indicators of each department and individual. In addition, key performance indicators are the main quantitative indicators used to measure the performance of staff. That is, 80% of work tasks are completed by 20% of key behaviors. Focusing on the analysis and measurement of 20% of key behaviors, the performance is captured. Focus of evaluation. The KPI concept based on the 28th Law points out the direction for organizational performance evaluation. The main focus of the evaluation work is on the key results and key processes. The evaluation work should be carried out around key performance indicators. In the 1950s, GE in the United States implemented a balanced set of performance metrics, but was still plagued by a lack of management information in subsequent developments. In 1987, the American Analog Device (ADI) company invited Robert S. Harvard Business School professor in the implementation of the company's strategic plan formulation and total quality management practice. Kaplan was involved in helping ADI implement ABC, and Kaplan discovered ADI's Balanced Scorecard (BSC) and recognized its important value. Later, Professor Kaplan and Revival Global Strategy Group

(Nolan-Norton) President David P. Norton started the theoretical research of the balanced scorecard, and published a paper "Balanced Scorecard-Driving Performance Indicators" in the Harvard Business Review in early 1992. ② The research results of the balanced scorecard were carried out. Summary. Since then, KPI and BSC have begun to integrate perfectly, becoming the first choice of corporate performance assessment methods, and becoming the performance appraisal tool that major companies are racing to adopt. Traditional management science is based on this, that is, based on determined work goals and fully quantifiable work results, the indicators are further refined, and different items and categories are separated to achieve more accurate management and assessment. According to relevant public information, GE performance management practices mainly include clarifying responsibilities and performance requirements, adopting a regular and institutional evaluation index system, implementing a "mandatory distribution curve" and "last elimination system". We continuously explore the potential of employees and improve their performance to drive the performance of the entire organization.



1.2 The Ojectives and Key Results method is a set of management tools and methods invented by Intel Corporation that clearly track goals and accomplishments. As the stock prices of high-tech companies increase, researchers and business people also Pay more attention to the organizational culture, management concepts and thinking, methodologies and tools of such enterprises. It not only strengthens the effective communication between employees, but also inspires every member to think actively and promote the development of the enterprise.

In 1954, management master Peter F. Drucker in his book The Prac-

"ice of Management" put forward an epoch-making concept -----

Management By Objectives (MBO), the essence of which emphasizes self-control, that is, self-controlled management is more important than management ruled by others

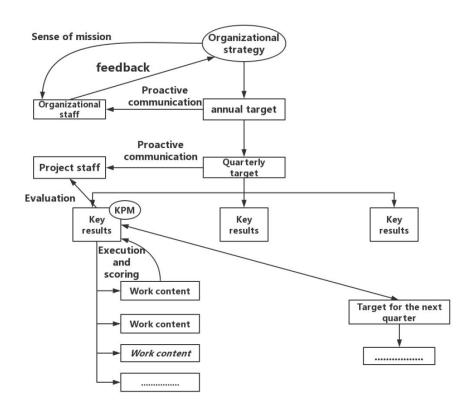
Incentive effect. In 1999, as a devotee of Drucker, Intel Corporation

President Andy Grove shouted "HOM, High output Management"

Banner invented and implemented OKR, which was then introduced and promoted to Google.

All the companies it invests in need to specialize in the training and implementation of the OKR system. After the successful implementation of Google, the OKR method has

gradually been adopted by internationally renowned companies such as Microsoft, Ora-cle, GE, and LinkedIn. Domestic Baidu and Pea Pods have also started to use the OKR management model. Since then, OKR has gradually been recognized by more and more IT companies. OKR, or goals and key results, is a set of management tools and methods that define and track goals and their accomplishments. Compared with the KPI, KR, OKR has the functions of both an assessment tool and an objective management tool. Its main purpose is not to assess a department team or an employee, but to remind the team or employees to pay attention to the current goals and tasks. OKR has three obvious characteristics: simple, direct, and transparent. First, OKR encourages the design of ambitious goals, and uses the results of the goals to measure the performance of employees. Companies, teams, and individuals all have different levels of goals and key results. All these key results together ensure that the business runs as planned; Second, OKR decomposes goals into tasks that are directly executed, that is, key results based on tasks. Each key result is a key action and important result that directly supports the achievement of the goal, not only performance indicators that are helpful to the achievement of the goal; the third OKR can effectively motivate and achieve employees. The goals, key results and final scores of each team and individual are open and transparent within the company. This not only helps to unify the goals of the company, team and employees, promote teamwork, and reflect The fairness and impartiality of value contribution also helps to promote self-motivation and growth of employees through performance feedback channels such as process guidance and timely positive feedback.



#### 2. Research contents and research methods

2.1 the main objective of this paper is to establish the performance and performance management system of related enterprises under the Global Enterprise Management Mechanism. Through the study of Okr and KPI, this paper makes a deep thought on the existing problems and explores the performance management mode suitable for enterprises,

aiming at the research of the performance management system of both, to be able to provide a certain degree of understanding meaning for the future development of domestic enterprises. This paper mainly includes the following parts: Chapter 1 is the introduction, summarizing the related theories, this includes the main meaning and unique nature of performance and performance management, the performance management method based on strategic orientation, tools and the main design of this performance management evaluation methods. In Chapter 2, the author introduces the cause of the research content, the main significance of the research, the research process and the current situation at home and abroad, the main research ideas, the content framework and the main research content. Chapter 3 mainly analyzes the similarities and differences between KPI and Okr. Chapter 4 will analyze in detail whether enterprises should choose KPI or Okr when they choose performance management system. Seek out the way of integrating the actual implementation of strategy with the performance management system, and finally construct the performance management system suitable for the actual implementation of corporate strategy. Chapter 5, based on the analysis of the above background and current situation, proposes appropriate improvement methods, and prepares and implements the implementation of Okr in the pilot group, adopt quality management method, follow up the whole preparation process, implementation process and retake process. The most difficult part of implementing okr in an organization or company is the preliminary preparation. Blindly implementing okr will only lead to the formalization of the Okr, and the final effect will be just another form of KPI, no growth for organizations, companies, or individuals. Before preparing for the implementation of Okr, let the members of the pilot group understand the significance of implementing Okr, and then determine at what level Okr will be implemented. In general, the implementation of OKR has three levels: Company level, department level, and individual level, but this does not mean that from the beginning to implement the three levels together. A better approach is to select a layer, from point to point, and gradually expand, eventually all of the implementation of Okr.

- 2.2 this paper adopts the following three research methods to study the performance management system:
- (1) system analysis method. This paper uses systematic thinking to analyze the factors that influence the relationship between strategic execution and Business performance management, and finds the key factors between them by combing and studying the interactive relationship between them, at the same time, we study and apply the research results of Enterprise Strategy and performance management which already existed in the academic circles, and integrate them into this research.
- (2) literature analysis this paper collected and read the related management science at home and abroad; K P I performance appraisal indicators, balanced scorecard and other related performance management; and O K R and other related aspects of goal management journals, books and excellent papers, with the help of the online library of the university and other well-known information service portals such as Hownet and Wanfang, a large number of information searches have been conducted, the collected materials have been collated, and the research findings and shortcomings have been analyzed, we get a lot of ideas to solve the problem, so that the research direction does not deviate from the topic, and the research results have some convincing
- (3) investigation research method. The two methods of interview and questionnaire are carried out simultaneously and combined each other. Two kinds of performance management systems in enterprises are analyzed and compared, and their advantages and disadvantages are analyzed.

# 3. current research situation at home and abroad 3.1 current research situation abroad.

In the last 70 years, employee-related performance management has just begun to emerge in foreign countries, and it has only become the object of research. However, the practice and application of performance appraisal began a long time ago. Robert Owen has been promoting the use of performance management in Scotland since the 19th century, when it was first introduced into Western industry. At the 1813, the U.S. military began to apply performance measures to its military, by the 1840s, the performance management system for government officials was also applied to the actual management of the federal government in the United States, the idea of the system evaluation system is gradually added to the performance management thinking. The scholar Frederick Window Taylor first established that "the common goal of labor participants and managers in an organization must be the career development of all the people in the organization, so as to make full use of all the resources in the organization, so that people who participate in labor construction can fully and actively participate in the work, and ultimately achieve the best working conditions of all the people, and do things that maximize the benefits. ". Henry Fayol also points out that a qualified manager in an organization must have such excellent qualities as reasonable arrangement of work content, meticulous work style and coordinated performance management. Around 1930, the famous Hawthorne Experiment, launched by Hawthorne, was designed to measure the effect of working conditions on productivity. The scholars involved in the experiment try to find out an effective way to improve labor productivity through the experiment. But the results of the experiment show that the human factor needs to be paid more attention in the whole field of management, because human has an extremely important influence on the improvement of labor productivity, this is where the study of the theory of interpersonal relationship and the theory of behavioral science began. In the beginning, Elton Mayo George Mayo, a leading researcher on the theory of human relations, pointed out that the real human being in an organization is the concept of "social person", not the concept of "economic person", and that the productivity of workers will be affected by factors such as the social environment and the overall state of social development, rather than just by the physical environment and physical conditions as previously thought. His research indicates that if the social aspirations of workers are met, it can effectively promote workers'work enthusiasm, which can be said to be a key factor in improving labor productivity. After the theory of interpersonal relationship appeared and developed, other similar new subjects such as philosophy, natural science, social science, psychology and so on were introduced and applied to this research field one after another, and then various theories of management system appeared, which includes the famous "demand level theory" of Maslow, "X-Y theory" of McGregor, etc. In 1980, the management direction of "personnel management" appeared one after another in the world's enterprise management, which attached great importance to the development goal of the enterprise and the performance management of the employees. In order to achieve the objectives of the enterprise, the personnel management system and methods are now in operation whether appropriate, whether it has a supplementary role. They know that in order to gain a firm foothold in the market competition, and even to make progress, they must establish an effective personnel management system, and to be able to actually implement and apply to the actual management of the enterprise, while meeting the basic direction of the future strategic development of the enterprise, so as to prepare for the future of the organization's personnel of various capabilities infinitely close to the overall strategic development goals of the enterprise. In the 1980s, the expert scholar Hunter assumed that the focus of "personnel management" had changed, and from this change of thought, put forward a new concept of "human resource management". Sentence is too long, please supply a shorter sentence. As for the performance appraisal, scholar Andson proposed

in his work that he divided the core content of performance appraisal management into two parts: "evaluation" and "development" . "evaluation" refers to an overall analysis and study of the historical performance of the assessed personnel in the organization, and an assessment of their past performance. "Development" is mainly reflected in the future development potential of the examinee, focusing on the study of whether the performance of a certain ability in the assessment time has the possibility of reasonable application in the future.

The traditional evaluation method has the experience-based, the subjective performance appraisal way, this kind of appraisal way's appraisal result does not have the certain accuracy, lacks in the staff "the sense of fairness" aspect trust. In contrast, the more objective, more intuitive quantitative assessment method to overcome these problems is more easily accepted, this method is therefore more widely used in a variety of management. Compared with the qualitative assessment, quantitative assessment has better advantages and practicability, and its persuasion is also strong. Quantitative consideration and with specific items, specific data can be analyzed, and comprehensive consideration of all relevant items, to be able to comprehensive and specific assessment of all the items required. The practical application of the quantitative method is also mature, because the statistical method has been used in the routine management, and the highly developed computer technology also provides a further guarantee for the application of the quantitative method. From all kinds of signs, qualitative assessment must be gradually replaced by quantitative assessment. Every enterprise pays more and more attention to human resource management, and performance management is becoming an important part of human resource management, so it is filled and improved gradually. In the development process of human resource management, performance management is also constantly changing. For example, the original performance appraisal right is in the hands of higher management, and now in order to be able to achieve direct management, timely communication purposes, this authority has gradually been devolved to management that can directly interface with specific departments, and the main task of managers in higher management is now to train practitioners in subordinate management, after the entry of performance appraisal training, training their learning assessment methods and methods and require them to do skilled application. In this way, a complete chain is formed. The superior is responsible for training the way of performance appraisal at the middle level, and the middle level is responsible for the content of the performance appraisal at the lower level, as well as the specific evaluation work, the formation of this chain of rights makes the results of performance appraisal directly from the docking level, it is more objective and impartial. How to communicate and feedback the final results of performance appraisal is also an integral part of the performance management system in recent years. The company uses the relevant data of performance appraisal to judge the specific working conditions of the workers, and how to further enhance the capabilities of the employees, the ability to make further changes in working methods is also an important part of the overall work of human resources management. Under the present circumstances, enterprises in most developed countries have widely chosen the system of multi-dimensional comprehensive assessment, the system was developed by the AT&T Corporation under the name of "Talent Evaluation Center" technology, the assessment criteria of this system generally include all-round inspection of the staff's personality, knowledge structure, ability and skills, psychological quality, behavior and habits, etc., the system has played an important role in the discovery of talents and the training of talents. In a word, the in-depth study of performance management helps to expand the theoretical knowledge of human resource management, develop and apply the relevant theories of organizational behavior. However, from the current situation of performance management system building and the actual application of the situation there are still many unsatisfactory, especially the need to strengthen the further study of the organizational context.

#### 3.2 the current situation of domestic research

The performance management methods generally used by multinational companies in China are the basic management methods derived from their parent companies. Sole proprietorships with Hong Kong and Taiwan backgrounds in mainland China typically use the management by objectives method, which takes place on a yearly basis. At the end of each year, the general manager of the company meets with the heads of the departments to agree on the General Direction and objectives of the company's future development, said management by objectives, director of the company, each specific functional department in the subdivision of the general objectives to their own departments, and then to the Department of specific employees as their personal goals. SET The company's overall target based on the operating profit target and the expenditure budget for the next year. Set the department's target and the employee's annual target according to the target and the individual responsibility position. Categorize specific goals into a management by objectives plan, according to which employees plan their work and report progress on a monthly basis, there is a department head to review the progress and specific analysis of the review for face-toface communication, and finally both sides of the findings of the report to the next level. After the goal is set, the employee should evaluate his own work, through the review, communication and feedback to the higher level. At the same time, the company shows the results of the management by objectives of each employee in a fixed time, which is an important reference for the promotion and salary increase of the company's employees. And state-owned enterprises, an important component of China's economy, do not have a fixed way of performance management. Most state-owned enterprises focus on restructuring and restructuring, the focus of performance management is only reflected in the moral character of employees, diligence, work ability, achievements and other relatively simple assessment. (1) the relationship between human resource management and organizational performance. One of the research focuses of human resource management in China at present is the relationship between organizational performance and human resource management. Many experts and scholars have conducted special theoretical and empirical research work in order to find out the relevant arguments that human resource management can provide positive impact on organizational performance, and clarify the interaction between the two internal relations and influencing factors. In 2011, scholar Yang Dongtao and others took more than 100 enterprises as a sample to discuss the relevant contents of human resources practice in enterprises under the background of China's economic environment, this paper tests the influence of the specific practice of supportive human resources on the emotion of the employees. In 2011, a trio of researchers including Zhang Zhengtang hypothesized the mediating effect between HRM activity and performance, and HRM effectiveness, using more than one hundred and thirty firms as subjects. The results show that the "talent attraction" has a significant impact, including career development, career pay management, job performance evaluation and management. The "enterprise skill level" has a significant impact, including vocational training and professional compensation management. The salary management and employee's participation have significant influence on "employee's motivation". According to the experiment, Human Resource Management Effectiveness does not constitute the function of the middle variable between the activities related to human resource management and the Business performance management. In 2012, research by Huang Haitao and three other scholars pointed out that high-performance work system mainly focuses on four levels, which include basic management of human resource management, procedural fairness and management focus of human resource management, and staff participation. In 2013, Hua Qin, an expert, put forward the concept of "pseudorelationship", that is, there is a "pseudo-relationship" between human resource management and organizational performance, specifically because the human resource management

system has strong complexity, the actual practice of human resource management may not be linear, direct, and related to the impact of job performance, which leads to academic differences, some people believe and confirm that there is a significant relationship between human resource management and organizational performance. However, many scholars believe that this kind of research still lacks a rigorous methodology to support it, research ideas and research methods still need to be further improved. (2) research on performance appraisal scheme of steam turbine enterprises, and there are many scholars and experts studying on the implementation scheme of performance appraisal in steam turbine enterprises. In 2006, the scholar Yang Dong elaborated from six aspects how to effectively improve the performance appraisal system. First, the set of assessment indicators must be critical; second, the assessment of the ultimate goal must be understood; third, the criteria used for assessment to maintain the original state, not other interference; Fourth, the evaluation indicators must be based on scientific methods; fifth, all posts to be evaluated will be classified and set up corresponding evaluation methods; sixth, the indicators must be based on the future development of the company, can improve the core competitiveness of enterprises and maintain the implementation of sustainable development strategy. These six aspects have certain guiding significance for the performance appraisal design of steam turbine industry. (3) performance evaluation research based on the balanced scorecard in 2014, Chen Yan, a scholar, conducted a research on the performance evaluation of the balanced scorecard of steam turbine enterprises. She proposed that the development strategy of the enterprises should be the main basis, combine the goal of each department, the goal of the staff and the whole strategic goal of the company, and then set up the balanced scorecard in the performance appraisal system, must Combine the company's Strategic Direction, annual expenditure budget, long-term planning and other information, because in the process of implementing the balanced scorecard, enterprises need the cooperation of the budget system, the information integration department, and the financial system, to function as a balanced scorecard. (4) steam turbine performance appraisal other research in 2015, scholar Seinfeld put forward a theory that the existing performance appraisal structure should be gradually optimized in layers, which is to adapt to the different work abilities of managers in various management departments; Promote the further communication between the Department manager and the department staff, according to the specific work content to set the specific assessment indicators, different posts, to guide the direction of the staff; In order to make it easier for the department manager to evaluate the work performance of the staff, we can set specific and detailed KPI indicators at the beginning of the evaluation, and improve its proportion of weight. Continuously improve the shortcomings of the original method in the follow-up assessment, make more realistic adjustments to the scores of each assessment point, and make the organizational goals more detailed, so as to finally achieve the use of performance appraisal as a management method, add value such as employee motivation and creativity to the overall strategic plan of the organization and contribute accordingly.

### 3.3 summary Summary:

After Third Plenary Session of the 11th CPC Central Committee, China's economy developed rapidly, so the relevant theories of performance management were also introduced into domestic management. However, due to the short time, so whether its theoretical research or practical experience and developed countries compared to the enterprise or can not be compared. Although the congenital condition is more disadvantageous, but the Chinese enterprise and the academic scientific research personnel or has invested the very big effort to the performance appraisal research. In order to meet the actual situation of China's economic development and the actual operation and management of enterprises, the experts and scholars generally use the supplementary research and the Exploratory research to study

the advanced international performance management methods and performance appraisal tools, in order to adapt to China's national conditions. And among Chinese enterprises prefer to directly use the advanced performance appraisal management and performance appraisal tools to their own enterprises, rarely to do innovative exploration. In particular, the human resource management system of steam turbine enterprises is scattered, without a systematic management system, performance management of the operation is weaker.

#### 4. The difference between KPI and Okr

Different directions of Implementation Attention: OKR: In the process of implementation of the importance of employee participation, such as in the KR identified process, the superior only tells the employee the goal (the employee can also consult the superior's goal on his own initiative) without telling the employee the specific measures and methods to achieve the goal, while the employee, after knowing the goal, can base on his own analysis and information, discuss with your supervisor or colleagues about the measures and methods to achieve the KR target. During the process of implementation, employees can adjust KR according to the change of situation while keeping the target unchanged. KPI: In the implementation process, pay attention to the clear objectives and measures, and require employees to enforce, in the implementation process can not be easily modified, and the implementation of employees with benefits. Differences in implementation: \* Metrics: Okr: each KR must be quantified, both in terms of quantity and time; KPI: Goals are measured more broadly, and in principle must be quantified, can Not be quantified must qualitative, qualitative can be from time, quality standards, figures and other aspects to measure. : : Openness: the emphasis of Okr is on full transparency and openness of the objectives and KR, with all members freely querying the objectives and KR of the other members for teamwork, and KPI being more closely disclosed, for example, between superiors and subordinates, between colleagues who are related to indicators, and so on. : : Communication: OKR emphasizes top-down Communication, in which goals are broken down from top to bottom, and krs can be presented from bottom to top, and decisions can then be fully discussed between the team or between superiors and inferiors to ensure that each KR is an impact on the achievement of the goals; Although kpis also emphasize communication, in the process of goal decomposition, more emphasis is placed on execution. : : Assessment: Okr is usually a team-based exercise, with each person presenting their own Okr results and then scoring and evaluating them together; kpis are evaluated by superiors based on predetermined metrics. :: Work Orientation: OKR focuses on output orientation, focusing on the outcome of the event rather than on the impact of the event on the achievement of the organization's or team's objectives after the event has been completed; \* Kpi Focuses on outcome orientation, emphasize the impact of the completed task on your goals. SCENARIOS: OKR is better suited to jobs where the approach to achieving your goals is not particularly clear and well developed, where all roads lead to Rome, but where the path is best suited to your job, such as R & D jobs, based on the emphasis on the goal, the employee can play how to achieve. KPI is applicable to some jobs where the work objectives and measures are clear and mature, such as the first-line operation posts in the manufacturing industry. Each post has specific work standards and procedures, in order to ensure product quality, the employee must operate and execute strictly according to the standard, but forbid to play at will;

# RESEARCH ON THE APPLICATION OF BIG DATA IN CHINA'S AGRICULTURAL PRODUCT SUPPLY

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#### **ABSTRACT**

As the last blue ocean in the field of e-commerce, agricultural products are favored by developing countries, and the multiple "pain points" encountered have transformed many businesses. Due to their perishable characteristics, supply chain management is regarded as the key to the success of agricultural e-commerce. This article explains the application of the idea of big data in the supply chain management of agricultural e-commerce from the perspective of big data in the supply chain, highlights the essence of big data to upgrade the supply chain of agricultural e-commerce, and makes a prospect for future development trends.

Keywords: agricultural products; e-commerce; supply chain; big data

#### INTRODUCTION

#### 1.1 Background of the study

The information explosion of our time has accumulated to the point where it can trigger change. The development of cloud storage, cloud computing and other scientific technologies has provided a prerequisite and guarantee for the mining of new value minerals of big data. With the continuous deepening of people's understanding of big data, the application of big data is constantly infiltrating in various industries. Big data thinking is driving change in management by driving business decisions, innovation in business models, improvement in operation management, and progress in technology creation. Ways to create new sources of value for social subjects. The world today has entered the era of big data. The agricultural product e-commerce, which is regarded as the most potential in the e-commerce field, is also embracing the wave of big data with a positive attitude. In recent years, with the vigorous development of the Internet, the improvement of the social logistics system, the implementation of relevant national policies to benefit farmers, the intensification of competition in traditional industries and the trend of people's consumption patterns shifting to online shopping, the agricultural e-commerce market has risen rapidly (Yu 2015). The emergence and development of big data technology has changed the traditional business model, and to a large extent, for the normal operation of enterprises and supply chain management. With the continuous development of the Internet, more and more information needs to be processed by enterprises. At the same time, due to the increasingly fierce market competition, more and more companies see this future development direction and choose the technology of big data Used in the company's supply chain.

#### 1.2 Problem statement

Although China has joined the WTO, China's agriculture is facing severe shocks, challenges and crises under the conditions of a market economy in which the production and operation of the agricultural industry have been integrated into the international competitive environment. In recent years, the export of agricultural products in China has been restricted, and the safety of agricultural products has become increasingly serious. This is largely related to China's current agricultural product logistics and circulation system. Because the development of China's agricultural product supply chain is still very backward, no standardized organization has been formed. And management (Shen 2016). The fragmented, chaotic, fragmented, and fragmented irregular management directly leads to poor circulation of agricultural products and increased supply chain costs. The "small-scale and large-group" agricultural product supply system corresponding to farm households in agricultural production and operation has already been More and more unable to meet the requirements of modern agricultural product supply chain and agricultural industrialization. At the same time, consumers are increasingly demanding on the diversification, personalization, and environmental protection of agricultural products, and they also pay more attention to quality requirements such as agricultural product quality, hygiene, and safety. This makes the traditional agricultural production, distribution management and monitoring model face great challenges (Zeng 2019).

### 1.3 Research Question

In view of this situation, this article will discuss what the agricultural product supply chain logistics management model based on the big data information network, how to realize the transformation of agricultural product logistics from the traditional basic logistics based on functions to the integrated logistics model-supply chain logistics management based on big data process management The transformation of models, and how to transform agricultural production and management methods, adjust the agricultural production structure, establish a big data-based agricultural product supply chain logistics management model that suits China's national conditions, and discuss how to apply supply chain management theory to the production, processing, and distribution of agricultural products In order to actively promote the development of China's agricultural economy and the industrialization of agriculture, and to be in line with international standards, this is a top priority (Wen 2019).

## 1.4 Research objectives

This articles' research objectives is about the traditional agriculture rely on big data technology to achieve the transformation from traditional agricultural logistics to modern Internet logistics and establish a big data-based agricultural product supply chain logistics management model that suits China's national conditions. By integrating a series of related investigations and studies, it is concluded that the application of big data in the supply chain of agricultural products is feasible and necessary. Relevant research methods are used to collate the collected literature and data, and find practical application cases to make the research report more scientific, accurate and practical.

# 1.5 Significance of Research

Big data has made it possible for enterprises in the supply chain to use information services and make innovations in agricultural supply chain services. In the context of big data, the services of the supply chain integrate information acquisition, integration, processing, and release, making data more valuable on a shared basis, and guiding agricultural product supply balance (Zheng 2017). Under the background of big data, each

company in the supply chain can obtain agricultural supply information, demand information, price information, consumer demand and other information, and based on this, make node enterprise management decisions to achieve the order, production, and processing of agricultural products. Distribution, and sales of integrated services. In short, agricultural product supply chain management itself is a complex subject. Incorporating big data into it (Jiang 2016) can enable big data analysis to improve the decision-making capabilities of companies in the supply chain, and coordinate and optimize enterprise management based on data information. With the support of big data, each node enterprise in the agricultural product supply chain can maximize the benefits on the basis of information and data sharing, while enhancing the competitiveness of agricultural products in domestic and foreign markets, and promoting the stable development of agricultural production.

#### LITERATURE REVIEW

# 2.1 Challenges Facing the Application of Big Data in the Agricultural Product Supply Chain

Although big data has only risen in recent years, academia, industry, and even government agencies have begun to pay close attention to big data issues and have a strong interest in them.

As far as academia is concerned, Nature launched the Big Data special issue back in 2008 (Zhang 2014). The Computing Community Consortium published a report "Big Data computing: Creating revolution breakthroughs in commerce, science, and society" in 2008. It explained the technologies and challenges faced by big data in the context of data-driven research. Some challenges (Zhang 2019). "Science" launched a special issue in February 2011, "Dealing with Data", which focused on the issue of big data in scientific research and explained the importance of big data for scientific research. Some well-known experts and scholars in the field of data management in the United States have jointly issued a white paper from the perspective of professional research.

"Challenges and Opportunities with Big Data", this white paper introduces the generation of big data from an academic perspective, analyzes the processing process of big data, and proposes several challenges faced by big data. McKinsey, a world-renowned consulting company, released a comprehensive report on Big Data in June 2011, "Bigdata: The next frontier for innovation, competition, and productivity". Detailed analysis (Yao 2019).

Big data technology involves many links, such as data collection, data screening, data storage, data mining processing, data visualization, data potassium energy analysis, data security, and privacy protection. Especially in supply chain applications. In the past, data was stored in the database, which was usually static. Now, big data is being generated every moment, and it must be read and analyzed. Therefore, the analysis of big data poses a high challenge to the computer system and structure. Previous commercial database systems used row-based data storage; under big data storage systems, most of the data was column-based storage in order to process data in real time (Bai Zhang 2019). In addition, big data processing urgently requires potassium energy. The amount of global big data has increased by 40% annually, but the investment in information technology has increased by only 5% annually, and the investment cannot keep up with the needs of big data mining and applications.

At present, compared with developed countries, China has a lot of gaps in self-controllable big data analysis technology and supply chain. Databases, data warehouses, commercial potassium energy analysis software and other fields have weak development foundations and have lagged behind advanced foreign companies. Finally, the big data talent

issue is particularly critical. The talent gap that understands both information technology, data resources, and industry needs is too large. McKinsey & Company predicts that by 2018, the talent gap for in-depth data analysis in the United States will be 141,900,000, and 1.5 million managers will need to be familiar with industry needs and technology applications. For China, innovative talents who can understand and apply big data are scarce resources and need to be paid great attention (Zhang Liu Wei Hu Yang 2019).

# 2.2 Opportunities for the application of big data in the agricultural product supply chain

In 2014, China wrote big data into the "Government Work Report" and defined big data as a basic strategic resource that can use big data to handle complex data sets that traditionally cannot handle. Applying big data to agricultural product supply chain management can promote the refinement of supply chain enterprise management, can promote accurate marketing of enterprises to achieve stable development of agricultural economy.

Dongxiang Zhang (Wen dai cai 2019) and others have conducted empirical research on the issue of "the impact of big data on the supply chain" and believe that the coordinated development of the supply chain will be realized. Li Jian and others believe that big data competition intelligence in a closed-loop supply chain is a double-edged sword

Sword, it is difficult to achieve a balance between the improvement of the overall efficiency of the supply chain and the damage of individual interests. So the author builds the big data intelligence collection subsystem, big data intelligence storage subsystem, big data anti-competitive intelligence subsystem, etc. Part of a set of system architecture to solve this problem (). Shi Hao et al.Weishang and third-party logistics participate in competing supply chain competition models, introducing private information acquisition costs into the model. This key variable. Through the analysis of the model, we believe that the stability of the supply chain is related to the leakage of private information. Competitors' profits depend on the cost of information acquisition. Based on the conclusions of the analysis, the author suggests that the government. When the product market competes with the free competition market, different strategies are used to adjust the competition relationship between the members of the supply chain. Data technology is helping the supply chain move towards synergy (Liu 2019).

Kim H. 29 and others established a corresponding big data infrastructure framework by analyzing the obstacles to big data acquisition. The framework builds large numbers through deep mining of internal data, existing capability sets, required capability sets, etc. Network based on capabilities and help provide SCM optimal decisions. Benjamin T. Hazen30 and others from accuracy, completeness, Considering the control of data quality in the four dimensions of timeliness and consistency, a new method based on SPCCStatistical Process is proposed. Control (Statistical Process Control) (Zhao 2018). Finally, research on data quality control is recommended Focus on the role of data quality in the supply chain information processing needs and capabilities.

# 2.3 Future Prospects of Application of Big Data in Agricultural Product Supply Chain

In view of the above summary analysis, the following will give a reasonable outlook on the application research of big data analysis in the supply chain, mainly divided into three points:

2.3.1 Big data analysis and application research methods in the future supply chain should focus on empirical research. At present, as far as the literature in the domestic field is concerned, it is basically purely theoretical research, lack of data demonstration, theory and practice do not achieve data connection, and it is urgent to integrate new empirical methods

to build a big data analysis application system in the supply chain (Lu Chen 2018). It can also use single case, multiple case, and case and empirical methods to conduct research, provide empirical analysis cases for different domestic supply chain companies, and guide the further development of the supply chain.

2.3.2 With the deepening of research on the application of big data in the supply chain, consolidating theoretical foundation research can provide conditions for the long-term progress of the application of big data in the supply chain. At present, few studies realize that the research is based on the combination of supply chain theory and big data theory. Most of the studies are based on the perspective of supply chain theory. Lei Peng LI 2015). In the future, big data theory can be introduced into research, including the causes, operating rules, and core ideas of big data. You can also consider the structure of the supply chain, such as analyzing the driving factors of big data applications in the supply chain. In addition, related disciplines can be added. In addition, on the basis of supply chain theory, big data theory, and related subject theories, a theoretical foundation for supply chain big data applications can be constructed to provide theoretical support for big data applications in the supply chain (Wang 2015).

2.3.3 The perspectives of applied research on big data analysis in the supply chain should be diversified. First of all, it is not enough to study the innovation of supply chain using big data. At present, it is urgent to study the difference between traditional supply chain and supply chain using big data. Analyze the important role and advantages of supply chain companies in the development process of supply chain companies in market demand forecasting, product research and development, products and services, etc. during the development process. A comparative study will be conducted before and after to explore the difference between the supply chain and the traditional supply chain after applying big data (Kuo 2015). Secondly, recognize the research trend of "supply chain + big data +". For example, the current Blockchain technology is used to achieve "supply chain + big data + block chain". Although "supply chain + big data" realizes the sharing of a large amount of information and enhances the operational efficiency of enterprises, there are also many hidden threats-data security issues. Big data analysis applications in the supply chain include a series of threats including big data infrastructure security threats, big data storage security threats, privacy leaks, data access security threats, and advanced persistent attacks against big data. The "supply chain + big data + blockchain" will better avoid these potential threats. Based on the advantages provided by the blockchain itself, such as improving security, traceability, providing evidence, developing data, electronic text, reducing costs, data management, and improving efficiency, the big data analysis application in the supply chain, especially the supply chain finance level Application is guaranteed. Therefore, "supply chain + big data +" is likely to become a research direction in the future.

### 3. Theoretical Framework

## 3.1 Big Data Applications and Supply Chain Financial Resources

Big data can provide companies with credit guarantees, which do not require additional costs, can effectively save financial costs, and attract many small and medium enterprises into their supply chains. These big data analysis can help banks and financial institutions to understand the actual situation of customers more comprehensively and systematically (Ye 2015), combining the business development of customers in the financial industry, personal credit and asset operation to build a complete And a scientific risk prevention system.

#### 3.2 Big Data Application and Information Collaboration

The disadvantage of the omni-channel model is the information synergy of the entire supply chain, which essentially replaces information with inventory. In the process, big data can become the "blood" of information collaboration. Building a relatively good supplier relationship and ensuring the effective interaction of inventory and demand information between the two parties, the construction of the VMI mechanism will significantly reduce production losses due to shortages (Shen Dang 2016). In a sense, the efficiency of the supply chain can be reflected by the accurate and fast response of multi-channel order processing.

# 3.3 Big Data Application and Low Logistics Cost

With the continuous development of specialized logistics models, the core of supply chain cost reduction lies in the flexible application of logistics assets. Big data can truly achieve high efficiency. At present, supply chain logistics companies can collect information on transportation road conditions, number of people, vehicles, etc. with the help of professional organizations and build a huge database. In logistics distribution, you can make full use of these data to implement flexible distribution. Use statistical data before distribution and during the distribution process. Based on the actual situation, appropriately change the quantity and distance of the distribution. This scientific and reasonable method of deploying personnel, vehicles, and fuel consumption can significantly reduce logistics costs.

# 3.4 Big data applications and value-added services for enterprises

Logistics companies can provide services that exceed customer expectations from the level of value extension, and broaden the development path through efficient logistics and value-added services. For example, freight companies can make full use of big data technology to track the entire process of vehicle transportation. Logistics companies with large storage space can use big data to provide refrigerated services for pharmaceuticals, as well as price products and provide product labels. Logistics companies that use information technology as their core can make full use of big data to place orders for suppliers, provide corresponding financial reports, sort and accumulate data, guess the actual needs of customers, and provide consulting support (Zhu 2016).

#### 3.5 Research theoretical model

# 3.5.1 Big data application mechanism

With the continuous development of information technology, people's ability to generate, save, and use data has been continuously enhanced. The scope of data has also expanded from traditional structured data to unstructured data, such as images, audio, and video. The development of technologies such as RFID radio frequency technology, sensor technology, social network interaction technology, and mobile Internet technology have also led to new channels for data generation (Cheng Chen 2017). In terms of storage technology, with the continuous development of transistor technology, quantum technology, and storage system structure, the storage capacity has been continuously expanded, the storage density has been continuously improved, and the storage speed has been continuously accelerated. And the continuous development of data fusion technology, machine learning technology, and data mining "technology, visual analysis technology, predictive analysis technology, etc. has provided technical support for big data applications" (Figure 1).

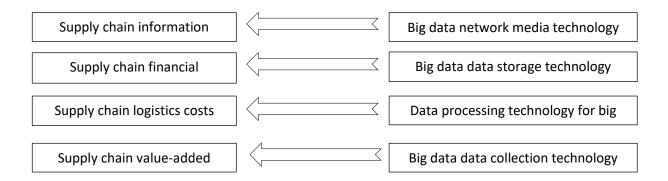


Figure 1 Application of big data in the supply chain

# 3.5.2 The Structure and Operation Mode of Fresh Food E-commerce Supply Chain

Fresh products usually refer to primary products that have not been processed or are only slightly processed and cannot be stored for a long time at room temperature. Generally includes vegetables, fruits, and meat. Fresh products are traditionally extensive multi-level wholesale channel models due to their seasonality, dispersion, timeliness of circulation, perishability, high frequency of demand, rigid demand, strict quality, and safety. No longer meets the development needs of modern society. With the help of the e-commerce network platform, effectively connecting various market players, implementing supply chain management, simplifying the circulation link, unblocking the circulation channels, and controlling the whole process of distribution will become the key to the fresh e-commerce decision. The structure of the fresh food e-commerce supply chain can be summarized as follows: consumers place an order from the fresh food e-commerce platform (Guan 2017), the e-commerce platform issues purchase instructions to the fresh food supplier, and at the same time, contacts the relevant logistics service provider to be responsible for delivery to the designated In the hands of a retailer or consumer. This process is accompanied by the interaction of real logistics, information flow, and capital flow. The traditional fresh supply chain (Figure 2) is often centered on wholesale companies due to the gap between small (decentralized) production and large (centralized) markets. Due to the small production scale and low degree of organization of farmers, and the relatively large scale, high degree of organization, and strong market monopoly capabilities of wholesale enterprises, farmers are at a disadvantage in terms of market games and bargaining power in the value distribution of the industrial chain. At the same time, retailers pass on these costs to ordinary consumers at high retail prices. "Selling hard to buy expensive" has become a "sick disease" restricting the development of traditional fresh food supply chains. Moreover, it is often driven by farmers' production, and the degree of production organization is low. Due to the lag of market response, the contradiction between supply and demand is inevitable. The complexity of the circulation process makes the time to reach consumers longer, and the risk of loss in transit is greatly increased (Wang Huang 2005).

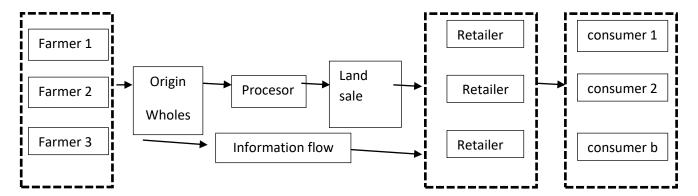
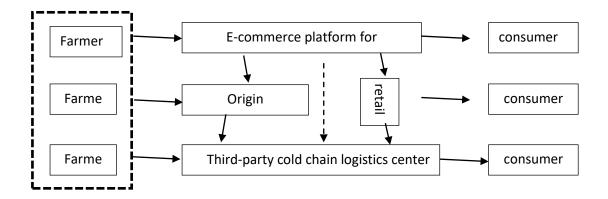


Figure 2 Supply chain in the e-commerce era

The supply chain in the e-commerce era (Figure 3) drives product and service improvement by understanding actual customer demand and forecasting actual demand (Liu 2018). As a nerve center for information collection, processing and transmission of the entire supply chain, the fresh food e-commerce platform plays an important role in the cooperative operation of the entire supply chain. Fresh food e-commerce breaks through the "information island" between buyers and sellers through the online platform. The two-way interaction of information between the entities simplifies the transaction process. In addition, the continuous improvement of the third-party cold chain logistics system can achieve a smooth flow of goods. The effective docking between buyers and sellers, while reducing transaction costs, ensures freshness as much as possible. However, in view of the fact that the main bodies of the existing fresh electricity supplier supply chain mainly have lower-level business information exchanges, the transaction data of the related node companies is scattered and stored, and the standardization of the information is low, which cannot support semistructured and unstructured Factors such as data processing and insufficient knowledge of information have failed to make use of its effective commercial value. In this era of "data is king", it is undoubtedly a huge waste (Song 2016).



**Figure 3** Supply chain in the e-commerce era

# DATA ANALYSIS, RESULTS AND FINDINGS

All relevant articles should be summarized in a table Thematic Analysis of most relevant paper should be done to answer the problem statement, research question and objective of the research.

Table 1 Supply chain as a data/information-driven business

#	Concept (use case)	Competitive advantage factors	Attributes
1	Operational efficiency	Using data to predict order Operational shift planning in retail stores or manufacturing industries	<ul> <li>Near real-time authentic order prevention</li> <li>information and transparency</li> <li>Appropriate staffing for efficient output by improving</li> <li>process quality for good performance</li> </ul>
2	Customer experience	<ul> <li>Social influence and analysis for customer retention</li> <li>Avoiding "out of stock" conditions for customer satisfaction</li> </ul>	<ul> <li>Customer loyalty</li> <li>Precise customer segmentations for optimum approach</li> <li>Interactive and integrated customer services</li> <li>Economies of scale and/or "push/pull" bullwhip effect</li> </ul>
3	New product development/ introduction NPD/I (New business models)	New product development and introduction (NPD/I)	<ul> <li>Request/demand for new product lines &amp; business models</li> <li>New revenue creation and expansion of existing product lines</li> </ul>

Table 2 Some big data analytical technologies relevant to supply-chain management

#	Tools	Definition	Application benefits
1	Cloud computing	Cloud computing analytical tool provides an interesting model for analytics, where solutions can be hosted on the cloud and consumed by customers in a pay-as-you-go fashion (Marcos, Rodrigo, Silvia, Marco, & Rajkumar, 2015)	For the cloud computing analytical tool to be functional as expected, several technical issues must be addressed, such as data management, tuning of models, privacy, data quality, and data currency (Marcos et al., 2015)
2	Master database management system (MDMS)	Master data refers to data to be shared among various systems (operational / transactional application systems and analytical systems) throughout the enterprise. For example, it can be related to customers, suppliers, accounts, and Data related to organizational units.	MDSM provides a much centralised cluster of metadatabase systems processing different aspects of the stored, filtered, transformed and retrieved value-added data to enhance more informed and strategic decisions (Addo-Tenkorang, Helo, Shamsuzzoha, Ehrs, & Phuong, 2012)

#	Tools	Definition	Application benefits
3	Apache Hadoop	A scalable fault-tolerant distributed system for data storage and processing (open source under the Apache license)	Apache Hadoop enables big data in the form of datasets to be captured, managed, and processed by analytics applications of general computers within an acceptable value-adding scope
4	Map-reduce	Map-reduce is a distributed fault-tolerant resource management and scheduling application coupled with a scalable data programming abstraction. MapReduce is a simple but powerful programming model for large-scale computing using a large number of clusters of commercial PCs to achieve automatic parallel processing and distribution (Dean & Ghemawat, 2008)	Map-reduce will combine all the intermediate values related to the same key and transmit them to the Reduce function, which further compresses the value set into a smaller set. Map-reduce has the advantage that it avoids the complicated steps for developing parallel applications, e.g. data scheduling, fault-tolerance, and inter-node communications (Min et al., 2014)
5	Apache Cassandra	Apache Cassandra is an open- source distributed database management system which has the capacity to analyse large amounts of data across many product or service servers, providing high availability without any point of failure	Cassandra offers robust support for clusters spanning multiple datacentres, with asynchronous master-less replication allowing low latency operations for all clients. The Apache Cassandra database is said to be the right choice when scalability, high availability and authenticity of value-added data/information without compromising performance is of high importance (Chen & Zhang, 2014)
6	Pentaho	Pentaho is another software platform for big data. It also generates reports from both structured and unstructured large volumes of data. Pentaho serves as a business analytic platform for big data to provide professional services for businessmen with easy access, integration, visualization and exploration of data (Pentaho Business Analytics, 2012)	Pentaho can enable business users to make data-driven decisions that
7	Apache Mahout	Apache Mahout seeks to provide scalable and commercial machine learning techniques for large-scale and intelligent data analysis in industrial applications (Grant, 2009). Examples of these big wellknown industries include Google, Amazon, Yahoo!, IBM, Twitter and Facebook. They have implemented scalable machine	Apache Mahout seeks to build a vibrant, responsive, diverse community to facilitate discussions not only in the project itself but also in potential use cases. Hence, its core algorithms include clustering, classification, pattern mining, regression, dimension reduction, evolutionary algorithms and batch-based

#	Tools	Definition	Application benefits	
		learning algorithms in their	collaborative filtering, run on top	
		industrial projects. Thus, a	of Hadoop platform via the Map-	
		significant number of their	reduce framework Therefore, the	
		projects have big data problems	algorithms of Apache Mahout	
		and Apache Mahout provides a	libraries have been welldesigned	
		tool to alleviate the big challenges	and optimized to have good	
			performance and capabilities. A	
			number of non-distributed	
			algorithms are also contained	
			within it	

Table 3 Harzing Publish or Perish publication list of big data applications with citations.

Cites	Authors	Title	Year Publisher		
0	Yu Yongli	Big data upgrades e-commerce	The Road to Management		
		supply chain management			
2	Shen Fengping,	Application Research of Big Data	Jiangsu Commercial Theory		
	Dang Yuanyuan	in Fresh Food E-commerce			
1.0		Supply Chain			
10	Zeng Yan	Application of Big Data in Supply	China Management		
		Chain Management	Informationization		
3	Wen Yanjiao, Dai	Research on Decision and	Modern Marketing (Information		
	Yidi, Cai Yonghui	Coordination of Agricultural	Edition)		
		Product Supply Chain in Jilin			
		Province Based on Big Data			
20	Zhang Rongmei,	Research on Agricultural E-	Jiangsu Agricultural Sciences		
	Hu Wenling,	commerce Development Model			
	Wang Suzhen	Based on Agricultural Supply			
		Chain			
1.5	1. 0.	A 1 ' C ' 1, 1 1	D . E . D 1		
15	Jiang Qian.	Analysis of agricultural product	Business Economics Research		
		supply chain optimization under			
00	71	the background of "Internet +"			
90	Zhang Fengjun	A review of big data technology	Communications Technology		
10	71	research	Commenter Durchaster and		
10	Zhang Shiyu	Application of Big Data in	Computer Products and		
		Enterprise Supply Chain	Distribution		
2	Van Linai	Management	F: 1.A G. 1		
2	Yao Jiaqi	Research on the Application	Finance and Accounting Study		
		Strategy of Big Data in E-			
6	Bai Xue, Zhang	commerce Supply Chain  Application of Big Data			
0		Technology in Cost Control of	China Agricultural Accounting		
	Bing	Small and Medium E-commerce			
		Supply Chain			
5	Zhang Yaqiong,	Research Progress on Application	China Market		
	Liu Qiaoyun, Wei	of Big Data Analysis in Logistics	Cinna iviairot		
	Sipan, Hu Yi,	and Supply Chain Management			
	Yang Peng	and Supply Cham Management			
19	Wen Yanjiao, Dai	Research on Decision and	Modern Marketing (Information		
	Yidi, Cai Yonghui	Coordination of Agricultural	Edition)		
	Tiui, Cui Toligiiul	Product Supply Chain in Jilin			
		Province Based on Big Data			
		110 mice based on big batta			
L					

Cites	Authors	Title	Year Publisher		
30	Liu Pengcheng	Research on the Application of	[Value Engineering		
		Big Data in Supply Chain	8 1 8		
99	Zhao Yunlong	Supply chain management of	Science and Technology		
	Zinao Tamong	manufacturing enterprises under	Innovation		
		big data environment	inno vacion		
123	Lu Shan, Chen	A Summary of Application	Business Economics and		
123	Yubin	• • • • • • • • • • • • • • • • • • • •			
	Tubili	Research on Big Data Analysis in	Management		
		Supply Chain	D 1 17 2		
62	Lei Liang, Peng	Research on the Application of	Books and Information		
	Zhen, Li Hong	Big Data in Regional Brand			
		Marketing			
22	Wang Qinmin	Application of Big Data in	Acta Geographica Sinica		
		Economic and Social			
		Development			
2	Guo Wei	Big data and its application in	Logistics Technology		
		supply chain	8		
3	Ye Zhongxing	Big Data Application in Internet	Scientific Research Information		
	10 Zhonganig	Finance	Technology and Application		
0	Shan Fananina	Research on the Application of			
0	Shen Fengping		Jiangsu Commercial Theory		
		Big Data in the Fresh Food E-			
		commerce Supply Chain			
0	Zhu Qingqing	Research on the Flexible	Sci-Tech Monthly		
		Capability of Fresh Agricultural			
		Product Supply Chain Logistics			
		Based on Big Data [J]. Sci-Tech			
		Monthly			
5	Cheng Dong	Application of Big Data in Supply	Modern Management Science		
		Chain Management			
2	Guan Zhihua	Application of Big Data Analysis	Logistics Technology		
		in Supply Chain Management			
2	Wang Ning	Research on Management Mode	Research of Agricultural		
_		of Agricultural Product Logistics	Modernization Agricultural		
		Supply Chain Based on	Wiodelinzation		
		Information Network			
3	Liu Shuai		Beijing Jianzhu University		
)	Liu Siiual	11 5	Deijing Jianzhu Ulliversity		
21	C T'	collaboration based on big data	Dellas Basis II '		
21	Song Jia	Research on Commercial Bank	Dalian Jiaotong University		
		Supply Chain Financial Risk			
		Management Based on Big Data			
		Technology			
13	Marcos, D. A.,	Big data computing and clouds:	Distributed Computing		
	Rodrigo, N. C.,	Trends and future directions.			
	Silvia, B., Marco,	Journal of Parallel and			
	A. S. N., &				
	Rajkumar, B				
59	Addo-Tenkorang,	Logistics & supply chain	InTechnology anagement or		
	R., Helo, P. T.,	management tracking networks:	Emerging Technologies		
	Shamsuzzoha, A.,	Data-management system	(PICMET), 2012 Proceedings of		
	Ehrs, M., &	integration/interfacing issues	PICMET', 2012 Floceculings of PICMET'12: IEEE Xplore (pp.		
	Phuong, D	megration/interracing issues	2198–2206)		
	i nuong, D		2130-2200)		
	Dean I o	ManDadwan Cimulici 1 1	Communications of A CM		
2	Dean, J., &	MapReduce: Simplified data	Communications of the ACM		
	Ghemawat, S	processing on large clusters.	İ		

Cites	Authors	Title	Year Publisher	
23	Min, C., Shiwen,	Big data: A survey. Mobile	Network Applications	
	M., & Yunhao, L			
10	Chen, C. L. P.,&	Data-intensive applications,	Information Sciences	
	Zhang, C. Y.	challenges, techniques and		
		technologies: A survey on Big		
		Data.		
32	Grant, I	Introducing apache mahout:	IBM Corporation	
		Scalable, commercial-friendly		
		machine learning for building		
		intelligent applications		

#### 4.1 Existing industrial application concepts: big data in supply chain

We have noticed that: analyzed from these documents: Big data has been in existence for some time now in many different roles and aspects in many industries, including manufacturing SCs. However, it still appears a relatively untapped asset that industries can still exploit once they decide on or are inclined to apply the right data-mining technologies and techniques. Thus, there are some existing examples of big data applications in industries which did enhance operation processes to some extent. Table 1 outlines a few of the existing concepts and scenarios which did make some impact in specific operation / supply chain management industrial business use cases (Jeseke, Grüner, & Weiß, 2013). Adding value to industrial voluminous data / information is imperative for effective and efficient industrial supply chain as a strategic asset for enterprise competitive advantage. Therefore, exploring ways of adding value to the variety and voluminous industrial data generated in a faster analytical approach is imperative in orga nizational supply chain.

Big data analysis for value addition has seen a number of big data analytical processing tools, which include a few mentioned in this research paper in Table 1, such as: Apache Hadoop, Cloud computing, IoT, MDBMS and Map-reduce, among others. These listed analytical tools are generic tools embodying sub-analytical tools which may have much better processing power and the capability of achieving Veracious data and / or information for informed strategic decisions. Big data analysis could be either performed in real-time, where data / information changes occur constantly, or in an offline mode, where there are no constant changes in the stored data / information but where the results of analysis are expected in a very short time.

# 4.2 Using big data analysis technology to provide reliable guarantee for supply chain management

We found that: in order to gain a deep understanding of big data, this section will introduce several fundamental technologies that are closely related to big data, including cloud computing, IoT, master database management systems (MDMS), Apache Hadoop, Apache Spark, Map-reduce, etc. Table 2 outlines some of the most widely used "big data" operational tools, their definitions and their implementation benefits.

Through reading relevant literature, we can see that the use of these technologies can effectively transform the supply chain logistics management mode of big data process management, as well as transform agricultural production and management methods, adjust the agricultural production structure, and establish a big data-based agricultural product supply chain that is suitable for the national conditions Logistics management model, and explore the application of supply chain management theory to the production, processing and circulation of agricultural products to actively promote the progressive development of agricultural economy and agricultural industrialization.

#### 4.3 Big data applications research publications

Through the literature review, we summarize that:Google Scholar and Microsoft Academic (since the release 4.1). It presents results which are available on-screen and could also be copied to the Windows clipboard (for pasting into other applications such MS Excel and similar application) or saved to a variety of output formats (for future reference or further analysis). This software tool is designed to empower individual academics in presenting a significant case for research impact to its best advantage. Table 3 illustrates the on-screen search results for "Big Data in Applications Operations/Supply-Chain Management" and is exported to MS Excel application for better presentation in the form of a table. Table 3 illustrates existing and trending research within the theme of "Big Data Applications in Operations/Supply-Chain Management", indicating the impact in this research area. The most cited paper is already in excess of 90 citations (Title: Dataintensive applications, challenges, techniques and technologies: A survey on Big Data; Authors: CLP Chen and CY Zhang; Year of publication: 2014; Publisher: Elsevier). The following section elaborates further on the taxonomy of this literature and more on big data application in supply chain focusing on the value-adding competitive advantage of the 5Vs of big data.

#### **CONCLUSION**

#### Conclusion

Big data marketing practices in the business community have proven its great value exists in the field of sales, but how can marketing entities benefit in the era of big data. Use data to pinpoint customers; how to extract useful information from complex data Information; how to quantify marketing effects; how to establish effective marketing; how to enhance marketing. Sales relevance; how to effectively manage and control marketing expenses; how to improve marketing ROI; how to promote marketing and company value growth; how to improve customer Household experience; etc., will be the marketers and corporate marketing strategy. The main content of thinking is also the brand marketing in Southeast Asia. The world continues to deepen research on solar energy.

#### **Discussion**

This article discusses how to use new tools and technologies to support the application of big data in supply chain management and logistics to improve data quality so that companies and supply chain managers can achieve high levels of business value. It is a recognized research in the future Research Approaches on Logistics and Supply Chain China Market. In fact, there are many discoveries in the current research on this area, such as cloud computing, RFID, map-reduction, etc., and the use of technology is changing with each passing day. Research in this area should continue, and the development of these technologies has brought about the application of big data. What kind of impact should be further studied. In addition, assessing big data analytics to improve intra- and inter-company efficiency is also a researchable direction in the future, for example, seeking improvements, improving forecasting and maintaining the supply chain.

#### **Managerial Implications**

Big data analytics has become a hot topic in many industries including the supply chain management. There is much scope for advancement in the use of the right analytics techniques. In earlier pieces of literature (Souza, 2014; Trkman et al., 2010; Wang et al., 2016a), there are different methods and potential application of various analytics (e.g. descriptive, predictive, and prescriptive). In our review paper, we examined thoroughly the

big data analytics in the supply chain management aspects and discussed recent updates of these methods and application in supply chain management that are important for managers. Big data analytics has important applications across the end-to-end supply chain. From the demand data at the POS, retailer data, delivery data, manufacturing data, until supplier data. Big data analytics supports all the supply chain activities, it includes strategic sourcing, network design, product design and development, demand planning, procurement, production, inventory, until logistics and distribution, as well as the reverse. The effective use of big data sources leads to an abundance of process improvement in the supply chain. Further big data analytics can support the development of responsive, reliable, and/or sustainable supply chain. Big data analytics able to handle huge sets of data in a complex global supply chain. We also emphasize the application of big data analytics for various supply chains, such as finance/banking, healthcare, and manufacturing industry. Other industries such as technology, energy, hospitality industry, and other service industry will also take advantage of big data analytics. Depending on their strategies requirements, the choice of big data analytics, methodologies, and key performance indicators varies from organizations to organizations. The environment, culture, politics, and the management team within the organization plays a very critical role in decision making. Sufficient resources with analytics capabilities become the biggest challenges for many supply chain. Supply chain needs to create tight and ongoing links between data experts and business function, to answer the question of how data can help drive supply chain result. Cross collaboration among firms in a supply chain is one alternative to overcome the challenge.

#### **Limitations of Findings**

This paper has a number of limitations:

This research report is mainly for Chinese agricultural products, not for other countries, so it is not comprehensive

The findings of the literature review are based on Google scholar or sciencedirect which is very sensitive to the input keywords. Literatures which have slightly different keywords may be missed out.

The review on the current literatures does not consider the quality of the literature except that the literature has been cited at least once. We focused on considering the latest research of big data analytics in supply chain management. Nevertheless, we believe it is comprehensive as it covers many highly ranked academic journals.

The additional keyword and classification are adapted from Wanget al. (2016a). Our choice was based on the fact that it reflects the common views of academia in supply chain management.

Based on our review and findings, this study recommends future research in the implementation of big data analytics in specific industry application. All other aspects of supply chain management should also be studied with real data, especially big data analytics for strategic sourcing, network design, procurement, and inventory management, as well as big data analytics that supports supply chain coordination, agility, and sustainability.

#### Areas for further research

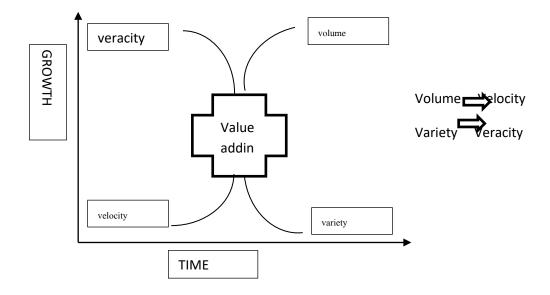
Based on our review and findings, this study recommends future research in the implementation of big data analytics in othercountries application. All other aspects of supply chain management should also be studied with real data, especially big data analytics for strategic sourcing, network design, procurement, and inventory management, as well as big data analytics that supports supply chain coordination, agility, and sustainability.

#### Conclusion

The present paper provides a comprehensive literature review on the studies done in the field of big data analytics in supply chain management. To do so, we systematically reviewed and analyzed papers in the respective categories to identify the major advances and highlight the research gaps. The increasing number of data in supply chain management requires tools to utilize the big data. Big data analytics has shown to be an important discipline that can provide the possible solutions to extract more useful information and wisdom for decision-making. With the current big data analytics methodologies and applications in supply chain management, opportunities and future perspectives from the supply chain management aspects are highlighted. Academia and industrial practitioners can be inspired to transform the supply chain management with the help of big data analytics. The present review paper can provide insights to both academia and practitioner in their application of big data analytics in supply chain management.

#### **Appendices**

Cites	Authors	Title	Year	Publisher
0	S Mujawar, S Kulkarni	Big Data: Tools and Applications	2015	search.proquest.com
0	AS Alghamdi, I Ahmad, T Hussain	Big data for C4i systems: goals, applications, challenges and tools	2015	ieeexplore.ieee.org
0	FZ Benjelloun, AA Lahcen	An overview of big data opportunities, applications and tools	2015	ieeexplore.ieee.org
0	VK Singh, DS Kushwaha, S Singh, S Sharma	Scope of Big Data and Its Applications	0	
0	0 S Ravada	Big data spatial analytics for enterprise applications	2015	dl.acm.org
0	I You, MR Ogiela, M Hwang	Intelligent technologies and applications for big data analytics	2015	Wiley Online Library
0	DR Kale, SR Todmal	A Survey on Big Data mining Applications and different Challenges	0	
0	YS Jeong, J Ma, LT Yang	Advanced communication systems for enhanced big data technology and applications	2014	Wiley Online Library
0	KV Rao, MA Ali	SURVEY ON BIG DATA AND APPLICATIONS OF REAL TIME BIG DATA ANALYTICS	2015	ijcea.com



Modulation of the four Vs of big data – an innovation S-curve model.

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# THE IMPACT OF THE EMERGENCE OF NEW MEDIA ON TRADITIONAL MEDIA

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#### INTRODUCTION

#### 1.1 Research Background

In recent years, with the rapid development of the Internet and the emergence of smartphones, traditional media, such as newspapers, televisions, and broadcasts are being used less and less frequently. At this time, the emergence of new media, such as news apps and video websites, has become more of a channel for new media to spread. Traditional media has gradually entered a trough, paper media has gradually decreased, and the probability of television being used has fallen sharply. The new era of the media industry has been dominated by media on the Internet.

Since the advent of the Internet, it has completely subverted people's lives. With the rapid development of the Internet in recent years, the emergence of news apps and video websites, more people from the media have appeared in people's lives. Many of this news is from the hands of the media, such as events appearing on the street, or videos accidentally captured, may become the hot topic of news. And this kind of news spreads faster and makes people more aware of the events that happen around us.

For traditional media, such as newspapers, when the new media is not as developed as it is now, newspapers are one of the most important ways for older people to obtain news. At that time, newspapers could provide a lot of information, such as social news and national news. Like advertisements, TV media, such as China Central Television's news broadcast on time every night at 7:30, are the main channel for obtaining news, but the time for obtaining news is limited. However, with the advancement of science and technology, the intelligence of mobile phones has become more and more prominent. Mobile phones can use browsers and apps to obtain more news and information and spread faster.

The impact of new media on paper media is greatest. In China, when smartphones were not mainstream phones, there were many newspaper kiosks. Students could get many extracurricular readings at newspaper kiosks, and adults could buy newspapers and magazines that could get different news. But with the arrival of functional mobile phones and the emergence of new media, mobile phones have become the new darlings, but this has also led to the gradual decline in sales of paper media. Many newspapers and publishers have also started their apps, leading to newsstands. The number has repeatedly decreased.

The emergence of new media is like all your original problems. The solution must be obtained from 100,000 whys. If the first one does not get the answer you want, continue to find the next 100,000 whys. But the new media is not the same. In the development of the Internet, the advent of search engines such as Google and Baidu have given people a new way to get answers. Questions you don't understand may also have videos from the Internet to teach you how to achieve them. This is not possible with traditional media. Traditional media may only tell you the steps, but the implementation is not the same, and there are some things you can't get from books. You can get it from other personal media, such as from Seeing how other people live abroad on your mobile phone and so on, this can make you more involved, just not the world read out from books in the brain.

For traditional media, news spreads much slower than new media. The emergence of new media and smartphones has changed the monopoly of traditional media and made the media ubiquitous. Everyone may be a reporter. News communication has become simpler, reflecting the most important timeliness of news. If a news item has exceeded its timeliness, then it may not be useful. Take the latest new crown pneumonia as an example. How to prevent it effectively, if you also use traditional media to disseminate, you may only know some middle-aged and elderly people, because they prefer to get news from TV, radio, and newspapers, and young people now prefer computers and mobile phones. So, it can be said that the Internet has changed the relationship between new media and traditional media. The Internet has made traditional media lonelier because not everyone has a lot of time to sit by the TV every day or read newspapers to get news.

With the emergence of self-media, new media have reached new heights again, such as YouTube, TikTok, Douyin, etc., which have become the way to spread media. What is useful to users is to get news that is useful to individuals, and this time to get this news may be during meals or in the toilet. Therefore, the emergence of new media is also due to the improvement of technology, which has made mobile phones and computers more popular, to break the shackles of traditional media.

The dissemination of new media is also very simple. The simplest dissemination platforms are WeChat, Line and other chat tools. For example, people may share current affairs politics, someone may post videos of police arresting prisoners and so on. Just a simple video or article can let you quickly understand what is happening or what has already happened. This is the speed of new and new media spreading. It may be that simply looking at the phone can get you time-sensitive information Speed is the biggest difference from traditional media.

#### **1.2 Problem Statement**

New media has become the most important media method. This article mainly discusses the impact of new media on traditional media and the future development direction of new daily traditional media.

#### 1.3 Research Questions

New media continues to impact the traditional media industry. How will traditional media be affected by new media in the next few years?

#### 1.4 Research objectives

What kind of development will the new media impact on traditional media?

#### 1.5 Significance of research

The impact of new media on traditional media will cause more problems for traditional media, such as the continued development of new media leading to the disappearance of paper media.

**Keywords:** New media, Traditional media, Integration

#### LITERATURE REVIEW

#### 2.1 Comparison between new media and traditional media

Traditional media is a traditional mass communication method compared to the online media that has emerged in recent years, that is, media that regularly publish information or provide educational and entertainment platforms to the public through sounds and images, mainly including newspapers, outdoor, communication, and broadcasting, TV, etc. New media is a broad concept. It uses digital technology and network technology to provide users with pictures, text, video and other information through terminals such as the Internet, broadband local area networks, wireless communication networks, and satellites, using computers, mobile phones, and digital televisions. The spread of services. Strictly speaking, new media should be called digital new media, covering all digital media forms, including all digital traditional media, online media, mobile media, digital television, digital newspapers, and so on. Both traditional media and new media have a huge impact on society. With the advent of the information age, many traditional media are unable to meet the growing demand for information acquisition and dissemination, coupled with the huge impact of the emergence of emerging media on them, traditional media have suffered unprecedented shocks. Traditional media can only promote the development of the media industry if it deeply integrates with new media and absorbs the advantages of new media to make up for its shortcomings. At present, many people do not have a high degree of identification with the development of new media, which has hurt the deep integration of traditional media and new media. Therefore, we must actively study the current dilemma of the integration of traditional media and new media, and find solutions to help traditional media achieve transformation.

#### 2.2 Integration of traditional media and new media

Basis for the interaction and fusion of traditional media and new media Traditional paper media refers to books, newspapers, etc., with text as the main body and pictures as auxiliary tools to display the content of the article. It has the characteristics of wide coverage, diverse topics, beautiful typography, and periodic publication. For example, the "China Youth" newspaper had a scale before the founding of the People's Republic of China, and it was a relatively influential newspaper at that time. In the revolutionary era, "Chinese Youth" played a role in spreading social trends, advocating advanced ideas, and showing social reality, and had an indelible effect on China's development. Traditional media has a long existence, large information capacity, and stable distribution. It is a good form of media and has always played an irreplaceable role in history. With the acceleration of the pace of life, people's pastimes become shorter, coupled with the advancement of electronic technology and the development of the Internet, people no longer rely only on traditional media to understand social news. Relatively speaking, the way of understanding the Internet is more in line with people Due to the fragmentation time requirements of traditional paper media, traditional paper media has shown a tendency of decline. New media came into being with the development of the Internet. It has the characteristics of the novel form, fast transmission speed, lively and interesting content, and large audience. It appears in the public's field of vision through video, public account, etc. through the Internet. It is now More popular media formats. As long as you have a mobile phone and the Internet, you can learn about the major events in the world anytime, anywhere. However, the knowledge it displays is fragmentary, and it cannot fully and comprehensively express the expressed content. The interaction and fusion of traditional media and new media can improve this phenomenon, which also determines the necessity of combining traditional media with new media.

# 2.3 How to innovate based on traditional media is not only the direction of traditional media transformation but also the development opportunity of new media. The essential difference between traditional media and new media

Traditional media, as opposed to new media, operate in the traditional mass media mode, mainly in the form of television, newspapers, and radio. Traditional media, with a long history of development, has been characterized by professionalism, depth, authority and high value. The procedures for editing, publishing, and other aspects of traditional media are very mature, very rigorous, and have a strict set of procedures. This ensures maximum authenticity and authority, and reduces the appearance and spread of false news. In its long-term professional operation process, it has accumulated extensive contacts, formed a brand effect, high credibility, a certain degree of social reputation, and a wide audience.

New media refers to the media forms that appear under the support system of Internet computer information technology. It is the product of science and technology, and mainly includes the Internet, Internet TV, digital newspapers, and mobile clients. Its information resources are abundant, timeliness is fast and free, it is highly interactive, and its forms of expression are increasingly diversified. In particular, the use of 5G technology has led to Internet technology innovation. Compared with traditional media, new media has lower operating costs, faster dissemination speed, and diversified profit models. Operators' enthusiasm is far higher than traditional media practitioners.

Today, chatting on WeChat, watching the news, checking information, and expressing personal opinions, all with just one mobile phone, has gradually become a habit in people's lives. It has a large amount of information, a large number of participants, and strong interaction. It can meet the increasingly personalized needs of readers, which are all advantages compared to traditional media.

#### 2.4 Impact of the Big Data Era

In the era of big data, the technology of the computer and internet industry is constantly innovating, and the big data internet industry is also slowly developing. The first thing affected by big data is business. Most e-commerce platforms will adopt the new marketing method of precision marketing based on the products that customers need, and most of them are proactive recommendations. In the era of big data, text, video, pictures, and other information are already common. In this context, the requirements for traditional media have become higher, and they need to face the challenges brought by big data with new concepts. All industries and industries are constantly digging the value of big data in the era of big data, not to mention the media industry, an industry that is closely connected with the dissemination of data and electronic products is, even more, digging the value of big data. The content and format of news arrangement in the media industry have changed accordingly. With the development of technology and the popularization of smartphones, it has now evolved from the era of mainstream media to the era of self-media and all-media vocalization that everyone can speak, and everyone can be a news communicator. It also makes news Reporting is no longer just a journalist's right. The advent of the era of big data has effectively enhanced the timeliness of news. But big data has also brought challenges to the media industry. News media pays more attention to original, authentic and objective viewpoints, and how to find representative and valuable information in massive data the dissemination of valuable data and news is an urgent problem. This requires news editors to improve their professional capabilities, understand the use of corresponding resources, and master data, analysis methods, and new equipment usage skills.

#### 2.5 Status of Traditional Book Publishing in the New Media Era

Traditional media is a concept opposite to new media. The early transmission of information in society was mainly carried out using radio, newspapers, books, television, etc. However, with the changes in audiences and media technologies in the media consumer market, traditional book publishing is here. The following problems exist in the era:

#### 2.5.1 Impact decline

In the traditional media period, due to the limited channels of information dissemination, the long diffusion time, and the slow update and upgrading of information, books as the main way of carrying information occupy a monopoly position, that is, people must use the information to obtain their own interesting or valuable information. Traditional books are a channel, but with the advent of the new media era, information transmission channels are showing a trend of diversified development, and the speed of knowledge updating and upgrading has suddenly accelerated. Traditional books tend to have less timeliness of information after publication. Influence has been declining.

### 2.5.2 Lack of appeal to youth groups

Youth are the main advocates of the new media era, and their high acceptance of the latest information has caused traditional media to lose this audience. From the perspective of the modern youth group 's habits of receiving media information, such groups have higher requirements for the value and timeliness of the information. At the same time, because work and study occupy more lifetime, the youth group 's utilization of fragmented time is relatively high. High, the need for information dissemination is immediate and readily available. The inconvenience of traditional book carrying and reading makes it significantly less attractive to young people in the new media era.

### 2.5.3 Low information-carrying capacity

Due to restrictions on typesetting and distribution of traditional books, the amount of information carried in them needs to be limited to a certain size, and traditional information can often only enter the reader's information receiving range through vision and then be processed by the reader's thinking. Being understood and digested, this single sensory information receiving method brings limited sensory stimulation to the reader, causing further loss of information. Information reading in the new media era is no longer limited by the amount of information carried. Second, the information transmission method also presents diversification, such as graphics, video, audio, etc., which improves the reader's information reception rate, thereby reducing information loss.

#### RESEARCH THEORY

#### 3.1 Qualitative analysis

Qualitative research method refers to the method or angle of studying the object according to the internal rules of the object or the contradictory changes of the object's characteristics and movement. So, my research is more suitable for qualitative research.

#### 3.2 Research basis

Through literature and searching for information on the Internet for analysis, combined with life experience analysis, whether society uses more new media or more traditional media, whether they can integrate.

#### 3.3 Case study

#### 3.3.1 Use its advantages to expand the platform

The advantage of traditional media is that it has powerful information gathering and orchestration capabilities and a wealth of information resources. The advantages of the new media are rapid spread and high user penetration. For example, as of the end of 2018, the number of online netizens was 424 million, accounting for 52.1% of all netizens. The size of mobile Internet literature users is 420 million, accounting for 50.2% of mobile netizens. The size of online video users was 612 million, accounting for 73.9% of all netizens; The number of mobile online video users is 550 million, accounting for 72.2% of mobile Internet users. You can see that the new media not only developed rapidly but also became the main way people get knowledge. Existing media is limited by technology and concepts, and the ability to create innovation is not strong, affecting the quality of integration with new media. The speed of information dissemination of new media is fast, the form is diverse, and the dissemination rate is high, but the ability to collect and edit information is not good. Because new media uses different tools and expressions than the opposite of existing media, existing media can utilize new media to integrate, build a platform for resource sharing, enhance previous exchanges and interactions, and integrate to strengthen. Content organization meets people's needs for a variety of information access and realizes tight integration.

#### 3.3.2 The Impact of New Media on Traditional Media

New media promotes innovation and innovation of existing media. In the rapid development of new media, media shows a variety of development trends, a single media model is replaced by a new media platform, the new media eliminates the time and space constraints of the media industry, expands the dissemination of news information, and expands traditional media innovation. The in-house development model and information dissemination method have improved the dissemination of existing media. The new media provides efficient interaction with the public. The new media can provide a virtual communication environment for the public and expand the public's interactive channels. The public can actively interact and discuss with the help of the news platform, and spiritual and cultural exchanges are characterized by broadness and vitality, creating a new type of interaction between the public and the media. For example, people can use social media like Weibo, QQ, and WeChat to accelerate the dissemination of information, which plays a positive role in facilitating traditional media building.

#### 3.4 Advantages and disadvantages of new and traditional media

New media: the benefits of new media, faster transfer rates, a wide range, more news, higher entertainment

Disadvantages of the new media: Bad news and spam.

Traditional Media: The Advantages of Traditional Media: News is almost broadcast from major local newspapers and TV stations, and the news is very accurate.

Disadvantages of traditional media: slow propagation, reduced fixed time and entertainment

So, combining the above pros and cons, you can see that there are pros and cons for each of the new and old media, but combining the two media can completely break the existing pattern if you have a new type of media that is very efficient and very accurate.

#### DATA ANALYSIS

#### 4.1 New media is proportional to the Internet

As shown in (Figure 1), the histogram is the number of Internet users in China, the curve is the Internet penetration rate, and the rapid development of the Internet in China in recent years has greatly increased the speed of new media because of the high Internet penetration rate. You can see that the number of new media has increased from 22.6% to 59.6% in the past 10 years because the number of people using it has increased.

# (1) Scale of Internet users and Internet penetration rate



#### **4.2 Discovery**

In the course of the study, people now know that they prefer new media. From the advent of smartphones to the advent of 5G, the Internet has created new media, but the old media hasn't fallen that far. , TV news broadcasts have their internet channels or media outlets, and to make sure it fits the pace of society and do media through new media. Go to the next step. New media is blue, but we need to make breakthrough breakthroughs so that we do not transcend the times, so we can develop new media and traditional media together and progress with the development of science and technology.

#### **CONCLUSION**

Combining several documents and information I found elsewhere, I came to the next conclusion. The existing media and the new media have their pros and cons, and while preserving the differences, learning the strengths of each other and finding common ground, integrated development can develop its strengths. Issues that arise from the integration of existing and new media must be analyzed in detail, and effective measures are taken to achieve in-depth integration, maximize the value of media resources, and promote the development of the media industry. To realize the integration of existing and new media, the competition must start a continuous development and integration and a consolidation path of dispute. For all kinds of media to grow bigger and stronger, you need to switch from a single

mode of operation, go to consolidation, move to full media operations, share the benefits of each other, and finally achieve interaction, beam completion, and consolidation. There is a general trend towards interactive integration of existing and new media, and due to the production characteristics and limitations of both parties, there are three main methods of interactive integration. The first method is to utilize each and focus on the text content. This interactive integration helps to address the "three vulgar" issues of new media content and excessive advertising, and can to some extent address the slow dissemination of paper media and a narrow range of viewer issues. The second way of interactive integration is to build and maintain your open platform. Create your public account, cooperate with regular publications of traditional paper media, regularly update articles that correspond to paper media, lead readers to recognize the nature of the times, and make other paper media well-referenced. The third method of interactive integration is to write a series of thematic texts, which can overcome the time requirements of new media as much as possible and make the content of existing papers more complete. Nowadays, interactive integration of traditional paper media and new media has begun, and there are many problems. This article suggests countermeasures to the problems of the integration process, hoping to help related practices and research and improve the interactive integration development of traditional paper and new media.

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# EXPLORING THE CHALLENGES IN BILINGUAL PROGRAM: CASE STUDY OF THAI AND CHINESE LANGUAGE

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#### **ABSTRACT**

China has the world's largest population (1.42 billion). It is a big market for international universities to recruit students to absorb advanced science and technology and feel the different cultural atmosphere. The number of Chinese studying abroad is increasing every year. As of 2018, the total number of Chinese students studying abroad reached 662,100. Compared with the statistical data in FY2018 and FY2017, the number of students studying abroad increased by 53,700, rising by 8.83%. With the development of China and Thailand's "Belt and Road," Thailand has gradually become a destination for Chinese students studying abroad. According to the statistics in recent years, the number of Chinese students studying in Thailand ranks first among the students studying in Thailand. The number of Chinese first-year students recruited by universities in Thailand in 2017 totaled 8,455, which was double that of 2012. At present, there are as many as 30,000 local Chinese students in China. With the implementation of more policies, the number of international students will continue to generate. China and Thailand signed the "Agreement on Mutual Recognition of Higher Education Degrees and Degrees" in 2007, and the "Sino-Thailand Education Cooperation Agreement" in 2009 to build a platform for students to study in Thailand. Although the entire school's application process is relatively simple, due to the low barrier to entry, there are no requirements for language performance, so the conditions for students are uneven. Most students enrolled have some difficulties in language communication, and there are some problems in the interaction between students and teachers. Many of the students in their daily lives cannot use full language exchange; these are the issues we need to pay attention to. This research takes the graduate students of the University of Suan Sunandha Rajabhat University in 2018 as a research object, through questionnaire surveys, supplemented by separate interviews to count the challenges faced by postgraduates in bilingual courses. The proportion of people passed In the form of data statistics, this study focus on specific challenges faced by students in bilingual classes. According to the research results, the graduate students of the innovation management major do not have sufficient language foundation to study the courses when enrolled. There are also significant problems in communication between students and teachers in the absence of a language foundation. These research results have specific reference and guidance value for the school in the curriculum setting and teacher allocation in the future.

**Keywords**: Innovation Management (IM), Study Abroad in Thailand (SAIT), Bilingual Environment (BE)

#### INTRODUCTION

With the continuous improvement of the gold content of Thai university education, Thailand has many excellent conditions for receiving international school, as follows: international examination institutions have recognized Thailand's quality of education. Higher education in Thailand adopts the European and American national model in curriculum setting, education methods, and education system. It is understood that the top 5 countries with the most significant number of students studying in Thailand are China, Myanmar, Vietnam, the United States, and Laos. As of July 2016, about 40,000 international students were studying in Thailand. Among them, Chinese students studying at their own expense accounted for 3/4. Compared with 2012, the number of overseas students in Thailand doubled year-on-year [1]. The number of international students between the two countries has also increased with the deepening of the "Belt and Road" exchanges between China and Thailand. This advantage of not requiring language scores and low costs is also a significant reason for the increase in the number of Thai students studying in Thailand. The increasing number of Chinese personnel, economic and trade exchanges and the need for talents who speak two languages have also expanded, which has also become another important factor for Chinese students to choose to study in Thailand. In the case of a large number of Chinese students studying abroad in Thailand, how to study and live in a bilingual environment has become a problem that needs to be focused on. How teachers teach and how students adapt to this unfamiliar learning environment has become issues that we need to consider and study. Bilingual education and bilingual environment also have a long history in the world. This educational method has undergone earth-shaking changes with the changes of the times and the advancement of science and technology. Some immigration countries started bilingual education at the earliest. Through comparison, we can also find out how bilingual education has changed compared with early bilingual education.

This article takes the graduate students of graduate school as the research object to study this new mode of studying abroad. It explores the challenges that graduate students have in bilingual courses. While this new model of studying abroad brings convenience for overseas students, whether students can adapt to the bilingual environment and how to face the challenges in the bilingual environment will be the primary goal of our research.

Since China sent the first batch of young children studying in the United States since the Qing Dynasty, studying abroad has become a common form of education. Data show that in 2016, the number of students studying abroad and the number of students studying in China increased simultaneously (Chen Dongsheng, 2017) . China has become the world's largest exporter of overseas students and the largest destination of international students in Asia. In terms of geographical distribution, the countries where Chinese students study abroad are relatively concentrated. In 2016, more than 90% of overseas students went to ten countries, including the United States, Britain, and Australia. Looking at the academic level, in 2016, 70% of Chinese students studying abroad studied undergraduate degree or above. In 2016, the Ministry of Education formulated the policy of "Promoting the Joint Construction of the "Belt and Road" Education Action," which proposes to build a "Belt and Road" educational community, promote regional education development, and fully support the joint construction of the "Belt and Road" initiative. As an essential partner along the "Belt and Road," the economic, trade and cultural exchanges between Thailand and China have a long history. In recent years, China-Thailand educational exchanges and cooperation has become a model of "Belt and Road" education cooperation [2] (Tang Wanhuan, Lan Xialing, 2017). The relevant data from the American International Education Association's "Project Atlas 2017" shows that China is still the world's most important source country for international students.

The proportion of Chinese students in the world ranks first in the world, with a percentage of 17.38%. Among them, in the United States, Britain, Australia, New Zealand, Germany, France, Japan, South Korea and other major countries studying abroad, the number of Chinese students is still ranked first. The United States, Japan, South Korea, and other countries have always been the leading choices for Chinese students studying abroad, but with the implementation of some national policies such as the "Belt and Road," studying in Thailand has gradually come into everyone's sight. Studying in Thailand with its low price is within the working-class range, and the advantages of a safe environment, low language requirements, short study time, and simple application process have become the choice of many Chinese students.

Thailand has a high degree of internationalization. Several well-known universities in China such as Chulalongkorn University, Hosei University, Asian Institute of Technology, and Asian University of Science and Technology all offer international courses. All schools are taught in English, and the teaching materials used are imported from the original European and American. At the same time, both foreign and Thai students in the school can use the credit system to align with international standards in the teaching system. All the international students from China are distribution in 44 universities across Thailand. Among these universities, the top 5 majors with the most significant international students are business management, Thai language, market management, global business management, and Thai language education. More than 30 universities, including the National Mahidol University of Thailand, are listed in the overseas university education certification recently launched by the Ministry of Education. However, when applying for Thai universities, one of the most different requirements from European and American countries is that Thai schools do not require English or Thai scores. This requirement provides more choices for students who want to study abroad but have language problems. Although the school does not need students to master English or Thai, the school adopts the teaching format of English teaching, which makes many students who choose to study in Thailand because they do not require language performance have difficulties in learning. These students are unable to clearly understand what the teacher wants to express in the first place. This situation makes the quality of class decline. At the same time, in the choice of textbooks, the school blindly chooses the original English textbooks and international standards. This way of selecting teaching materials can not be aimed at graduate students of various levels and stages. Whether teachers can clearly explain the content of teaching materials in the teaching process, different cultural backgrounds will also produce different understanding gaps. Secondly, due to language barriers, many international students coming to Thailand also have difficulties in life. Some students are unable to adapt to the environment and cultural customs for a while, and they cannot communicate Efficacious when they encounter some problems or have some questions. In the study life, whether students can express their ideas has also become a key question in learning. Therefore, the focus of this article will be on how the graduate students in the bilingual environment will deal with and face the challenges in the course.

#### LITERATURE REVIEW

#### 2.1 Bilingual Education

Since the 1990s, with the emergence of some significant events in the international economic field: multinational companies have begun to generate, China has successfully joined the WTO, and the rapid spread of global economic talks. All this is happening because China's connection with the world is getting closer and closer, and at the same time, international competition is becoming more and more intense. In this regard, in August 2001,

the Ministry of Education issued the document "Several Opinions on Strengthening the Undergraduate Teaching of Higher Education and Improving the Quality of Teaching" ([2001] No. JG 4) to use foreign languages There are specific requirements for teaching. Simultaneously, bilingual education is regarded as one of the critical indicators of teaching evaluation [3].

The so-called bilingual teaching is to use two languages to communicate and communicate proficiently in the classroom. Bilingual English is "Bilingual," which directly means "two languages," which refers to the coexistence of two or more cultural histories when two (or more) ethnic groups exist in a country or region In context, it may or may be necessary to communicate in two languages. Of these two languages, one is usually the language of the mother tongue or native language, and the other language is often the second language or foreign language acquired the day after tomorrow. According to the "Longman Dictionary of Applied Linguistics" published by the well-known Longman Press in Britain, the definition of bilingualism in the book is A person who knows and uses two languages. In everyday use, the word bilingual usually means a person who speaks, reads, or understands two languages equally (a balanced bilingual). Still, a bilingual person usually has a better knowledge of one style than of the other. And what is "bilingual teaching," the English of "bilingual teaching" is "Bilingual education." According to the definition given by Longman Dictionary of Applied Linguistics: "The use of second or foreign language in school for the teaching of the content subject." The American linguist Fisherman's definition of bilingual teaching believes that in the most general sense, bilingual education refers to an educational model that uses two languages for teaching in all courses except language classes. From the above definition of "bilingual teaching," we can see two critical features of bilingual teaching. First: "bilingual teaching" emphasizes the use of foreign languages in non-linguistic majors. Second: Bilingual education emphasizes the use of foreign languages to communicate and interact in the classroom.

Although the overall bilingual education has been improved in the 21st century, focusing on book knowledge and ignoring that listening and speaking culture still makes students' bilingual level insufficient to cope with the right bilingual environment. Bilingual teaching emphasizes the interaction between students and students and emphasizes the interaction of teaching resources, teaching environment, and other comprehensive second languages. It is more than just listening to teachers using the second language to teach in the classroom. Most of the so-called bilingual teaching has such problems due to my experience of receiving English education since childhood. Throughout bilingual instruction, teachers use bilingualism more frequently than students. The students are listening to passively and passively. Still, they rarely have the opportunity to practice and apply, and they cannot reach the second language for communication with the purpose of interaction. Therefore, I think the environment of bilingual education is still critical. It is an excellent way to be in another language-based climate if you want to use a bilingual interface fluently. Students will imitate the language habits of teachers and will interact with residents. If you have communication, you will have more opportunities to use the language directly. However, not all students in a bilingual environment can improve their language skills. They still need to have a particular language foundation. Otherwise, they may have adverse effects, such as loss of interest in learning, inability to complete homework reports, and aversion to communication. Wait for negative emotions. Therefore, from a theoretical point of view, the ultimate goal of bilingual education should be to be able to use two languages to think proficiently and freely switch between the two languages according to the actual objects and the needs of the working environment.

#### 2.2 Development of bilingual education

Bilingual teaching has undergone a long process from birth, development to maturity abroad, and the corresponding bilingual teaching theory has also gone through a very long process. The beginning of bilingual education is the need for communication between people of different languages, a simple language requirement. With the development of the times and the deepening of international exchanges, this kind of exchange is no longer a demand between people. There is also a huge demand for bilingual talents between countries with different languages. Under the continuous development of bilingual education, bilingual education is not just a demand for abilities, but also communication between cultures and a collision between two or even multiple cultures. With the development of pedagogy and psychology abroad, people's theoretical understanding of bilingual teaching has also gradually developed and improved. Practice and the latest research results show that students who master bilingualism not only have no influence on cognition but also benefit greatly. Bilingual education can enable students to achieve a high level of proficiency in both languages, and at the same time, will not harm first language and academic achievement for longevity. With the rapid development of science and technology and related disciplines, Fan Ti and Chen Xiaofan (2003) believe that the purpose of contemporary bilingual teaching is not limited to language learning, but more of cultural output and transmission [5]. Through the collision of cultures between different languages, students can understand different customs and lifestyles, and be more able to integrate into the international community. Through the study of different styles, students can communicate and communicate with people from different countries. Students can intuitively understand different cultures, religions, customs, and habits in the course of these exchanges. The study of bilingualism is not limited to the knowledge in books, and the way of language learning has also become more abundant and diverse. Students switch from only using books to learning through communication. A more flexible learning method makes language learning more accessible. Integrating bilingual learning into daily life also increases the use and practicality of language. A large number of students begin to study language directly in a bilingual environment. In this bilingual environment, although the students will be a little uncomfortable at first, as time goes by, the advantages of this language environment will begin to slowly manifest. This more profound and intuitive way of learning, while learning the language, also deepens the students' understanding of culture and customs.

China and Thailand have had exchanges since the Western Han Dynasty, and some Chinese have continuously entered Thailand to become Chinese and overseas Chinese . Approximately 14% (8.4 million) of the Thai population in 2015 was of Chinese origin , which has an essential impact on Thailand's economy, politics, and culture. With the reform and opening up and China's growing international influence, the importance and necessity of bilingual teaching have become increasingly prominent. One of the conditions for talents in the 21st century is that there are no language barriers. It is an indisputable fact that English has become the universal language in the world. Bilingual teaching is the extension and expansion of English primary language teaching. Today, as the number of students studying in Thailand begins to grow, the earliest batch of students studying in Thailand came from the Sino-Thai cooperation in running schools. At the same time, Zhou Jie (2002) believes that the fastest-growing education market is the Sino-foreign cooperative education model of universities .

In addition to the characteristics of multi-level schools and wide-ranging professional settings, the Chinese-foreign cooperative education system is unique in its teaching links, reflecting a unique cooperation model. Generally speaking, Chinese-foreign cooperatively-run schools all adopt the teaching plans of foreign universities, and the courses are set up following the market needs of both parties. Simultaneously, the bilingual teaching model is

divided into three types: mixed type, separated type, and full shape. Different teaching modes have their advantages. For example, teachers of blended teaching use the combination of local teachers and foreign teachers, and the combination of original textbooks and self-edited textbooks, different teaching modes have different characteristics. For example, in mixed teaching, both teachers and teaching materials use a combination of local resources and external resources; separate instruction is taught separately by domestic and foreign teachers. The advantage of this form is that there are many choices for teachers Selectivity; the last type of full-form teaching is in the teaching process, all of which are taught in a second language, but this form of education has higher requirements for students' language foundation. Otherwise, this form of teaching is a burden for most students. This kind of appearance not only does not enable students to learn new knowledge but also aggravates the adverse effects of students' tendency to wear out. The teaching mode currently accepted by graduate students in Graduate School is mixed teaching; that is, teachers use English textbooks to cooperate with Thai and Chinese for education. Because students do not have any Thai language foundation, and there is no Thai language teaching in daily courses, there are many obstacles for students to communicate with Thai native teachers. The school is equipped with native teachers who can teach in English. Although teachers and students use English as a medium between Chinese and Thai teaching, which allows students to have some buffer in the Chinese and Thai bilingual environment, it is easier to understand its content. Still, the students' actual English ability has not reached a better Degree, so the daily course content's difficulty has become a problem that teachers need to consider when teaching.

According to the research of Liu Yongjie (2004), she believes that the current bilingual teaching in the bilingual environment should use the "immersion" teaching mode <sup>[9]</sup>. A language is a communication tool. If you want to improve your language ability, you need to practice and use it after a lot of time. Therefore, for students who wish to improve their language level, the lack of learning environment will indirectly affect their motivation to learn foreign languages and the effectiveness of bilingual teaching. Dai Yuncai (2012) proposed that many variables of bilingual learning and the interleaved influence of variables build a very complicated dynamic system that directly determines the effectiveness and final level of bilingual education. Environmental factors are the most respectable components of the energetic system as a whole. Create a diversified environment for students and establish effective communication channels, which can be displayed at the sight of students to enhance students' memory ability. "Let every corner speak" this way of making full use of space is also an advantageous method in bilingual teaching. Through these very detailed ways, you can solve some of the daily life problems that students face in a bilingual environment.

Learning problems require students and teachers to communicate more to find solutions and solutions. We can learn from the Bi Wanwei (2009) wrote an article in this new cultural environment, student behavior, habits, ways of thinking and values should make some changes to adapt to the new cultural environment and learn to communicate effectively in the new cultural environment. Gulipi Murati (2015) believes that for bilingual teaching, the situation is also essential. Creating a robust bilingual learning environment and bilingual application environment can effectively improve bilingual learning. According to Han Lu (2015), Canada, as an immigration country in the world, was very prominent in the teacher model used in bilingual education at that time. The purpose of bilingual education in Canada is to improve the English level of immigrants and increase their employment opportunities. When conducting English education, they are not focusing on education in textbooks, but directly compiling students into English-speaking classes, using this "submerged" English learning environment for adaptive instruction. And they will not provide students with extracurricular tutoring. It is up to the students to conduct independent learning in this

environment. They were using this method to accelerate the students' adaptation to the bilingual context. However, although this kind of education improves students' learning speed, most students have obstacles in emotional communication, and physical and mental health has been dramatically affected <sup>[15]</sup>. In a completely unfamiliar environment, when there are difficulties in daily conversation; in fact, many students will have some expression problems. Thus, when to live and learn in a bilingual environment, continuous learning will be mandatory psychological students will have a considerable impact. In the teaching process, students are not considered their level. By placing students in a higher learning level environment, they hope to improve their degree through the influence of the situation. This teaching method is very inappropriate for low-level students. Therefore, what kind of teaching mode is suitable for students, and whether students of different levels can study together, the school needs to consider. The school also needs to arrange different levels depending on the student's learning level and learning ability. It is not an excellent way to learn and imitate some learning models in European and American countries.

By reading some literature about the difficulties students face in the bilingual environment of English and Chinese, Bilingual learning and teaching are continually changing and changing. At present, it is also an excellent learning method to integrate Thai and Chinese, and to integrate Thai into Chinese, so that students can establish a more transparent thinking mode. Ma Dandan (2016) believes that international students are the leading group of cross-cultural adaptation. They are the most direct contact with the bilingual environment and living in a bilingual environment, and they have the most direct and indepth understanding of the bilingual context. Studying the adaptability of international students in Thailand can provide reference opinions for the cultivation of international talents in universities [16]. In addition to the environment of bilingual education, textbooks for bilingual education are also a concern. Yang Yi (2016) believes that teaching materials will have a significant impact on bilingual teaching. Through a study published by Zhou Xing (2017) on the current use of bilingual teaching materials, we can see that in the ongoing bilingual learning process, students mainly use four types of textbooks. The four books are the original foreign textbooks, word-annotation, translation, and self-edited textbooks [18]. At present, the textbooks used in the teaching process of graduate schools are all self-editing textbooks. The other three books, such as original foreign textbooks, are a challenge for students in terms of length and difficulty. In the first bilingual education courses, most schools and teachers chose to use the original English textbooks. The choice of such books focused more on the education of knowledge subjects. Still, with the development and changes of bilingual education and bilingual environment, more and more the school is based on the selection of English original textbooks with self-edited textbooks.

The content of the original textbook is generally challenging, and the overall content is relatively obscure. Simultaneously, there are some differences between the actual teaching content and the content of the original textbook. Teachers generally give targeted explanations during the teaching process, so the original book is challenging to target the content of the schedule. At this time, self-compiled textbooks can reflect its advantages. Self-compiled textbooks can be adjusted according to the level of students' difficulty. You can choose specific teaching content, which is more targeted. Also more specific. Although the content of self-edited books may be insufficiently detailed due to the writers' knowledge background, the self-edited textbooks are better than the difficulty of adjusting the manuals and learning according to the students' actual level. This kind of book has more adjustments. It can be modified at any time. In my opinion, using original textbooks and self-edited textbooks to interpret teaching content is an excellent way to combine these two textbooks. It can not only understand in-depth professional knowledge but also have some details. The supplement above is well worth considering.

In terms of the curriculum, according to the research of Liu Yebing (2013), we can see that knowledge has no borders, so the internationalization of higher education itself is a critical historical mission of higher education [19]. While various courses teach professional experience, they should also integrate international, cross-cultural, and global concepts into the classes. The internationalization of higher education courses includes the use of original textbooks, bilingual teaching, foreign language and culture courses, and international problem courses. Cultivating high-quality talents suitable for economic globalization cannot be achieved by one or several bilingual classes in isolation and a group of courses must be constructed. First of all, in terms of curriculum positioning, we should emphasize the general teaching function of professional classes, with the learning of vocational courses as the central core; second, we should focus on training students' expert knowledge and the ability to use professional expertise for international communication; third, in the teaching process Teachers should use some effective methods to stimulate students' learning initiative. Finally, teachers should expand students' global horizons and train students to understand the concepts of internationalization, such as economic globalization. In the curriculum setting, the entire curriculum should emphasize continuity, interlocking as a whole, from simple to complex, and gradual. Bilingual courses should also add some cutting-edge courses related to majors, and encourage evaluation in the classes. How these courses are designed can have a positive effect on students' bilingual courses. The graduate school is the first to let students understand what globalization is in the course arrangement, and teachers will always discuss some hot issues with students in daily teaching. Teachers and students exchange their views with each other. This approach increases the interaction between teachers and students and makes the daily teaching content more diverse. And Sandy Huan (2011) researched teachers conducting bilingual teaching in her research. She believes that as the main body of bilingual teaching practice, teachers should also have strong bilingual ethical knowledge [20]. By using the necessary learning materials, through the communication and cooperation between teachers and students, both parties can be well improved in the process of bilingual teaching, which is an excellent learning opportunity for both parties. In the teaching process, language is not only a carrier of culture, and bilingual education is not only a spread of communication but also a reappearance of multicultural background knowledge.

#### **CONCLUSION**

This article takes the graduate students of graduate school as the research object to study this new mode of studying abroad. It explores the challenges that graduate students have in bilingual courses. While this new model of studying abroad brings convenience for overseas students, whether students can adapt to the bilingual environment and how to face the challenges in the bilingual environment will be the primary goal of our research. This is very important to know the challenges of bilingual program, it will help the management of the university to identify the challenges of bilingual program and solve the problem to improve the quality. Past literature mentioned, that communication and quality of curriculum could be biggest possible challenge. Similarly, translation can be also an issue, as the translator may not use the exact words of the instructors. The major limitation of this study is that the researcher did not collect the primary data, in future other researchers may collect primary data to know the real challenges in current bilingual program of universities.

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# RESEARCH ON INTEGRATED MUSIC INNOVATIVE TEACHING IN TAIWAN

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#### **ABSTRACT**

The idea of integrated music was put forward in the United States in 1965 and spread all over the world. Its core is "integration". Integration of rhythm, tonality, harmony, musical form, combined with the music context, the music perception for in-depth training. After years of practical research, the education authorities in Taiwan have successively promulgated such laws and regulations as the measures for gifted students in arts subjects to apply for study abroad, the art education law, and the implementation details of the art education law, to open up a road suitable for music education in Taiwan. During this period, with the change of educational idea and teaching demand, the name of this subject has changed from "sight-reading and dictation" to "integrated music ability". From simple reading score, dictation, to integrate the elements of music, multi-dimensional music ability training, so that students carry out extensive and comprehensive music learning. In this paper, the author takes the National Taiwan University of Arts as the research object, through the study of the integrated music ability curriculum of the school, and then analyzes the characteristics of the integrated music ability curriculum of the school, by comparing the teaching of Solfeggio in Chinese mainland with that of Solfeggio in Taiwan, the characteristics of music teaching in Taiwan are analyzed. Its ultimate goal is to comb out its teaching concept and value system suitable for the Chinese mainland teaching content and model, select its essence, the Chinese mainland area solfeggio teaching system to add a boost.

**Keyword:** Taiwan; Integrated Musical Ability; teaching management; Curriculum Management

#### INTRODUCTION

With the advance of economic globalization, the economic development of Taiwan area has been transformed into Export-oriented industrialization since 1960s, and the influence of European and American music culture on Taiwan area has gradually deepened. At the same time, musicians in Taiwan still advocate and practice the "Folk Song Collection Movement," emphasizing the search for the roots of local cultural concepts and music, introducing foreign music concepts while combining their own advantages, take the route suitable for the development of regional music. After years of research and exploration, the education authorities in Taiwan region, laws and regulations have been promulgated, including the "measures for gifted students in arts subjects to apply for study abroad" (Ministry of Education 1962), the "law on Arts Education" (Ministry of Education 1997), and the "rules for the implementation of the law on Arts Education" (Ministry of Education 1998), to open up a road suitable for music education in Taiwan. During this period, the subject of Solfeggio also underwent several changes in Taiwan. With the development of the gifted music class, its name changed from "Solfeggio", which was originally just reading

music score and dictation, instead of the present integration of music elements, multidimensional music ability for the cultivation of "integrated music ability.". The course makes the students change their thinking mode, and change their teaching ideas and ideas to train and improve their comprehensive practical music ability.

#### LITERATURE REVIEW

The Concept of integrated music originated in the United States, spread and influenced the music education model all over the world, Taiwan region is one of them. After years of exploration, Taiwan has combined Solfeggio with the concept of integrated musical ability, and tried its best in teaching objectives, teaching methods and teaching models, which endow the subject curriculum with deep connotation and annotation. However, as far as research on academic papers is concerned, because the region does not have the right to award master's degrees in Solfeggio, although it is a compulsory subject for music performance, music education and even arts education for all, in contrast to undergraduate and graduate students in the Chinese mainland, there is not much in the way of systematic and targeted research.

Chinanews.com searched for "Solfège" and found 3,984 articles on teaching methodology analysis, skills training and subject development. Find only 14 articles on integrated music, and a wide range of topics, including educational models, piano, musical theater, and so on. However, only 6 papers related to the integrated music ability course in Taiwan can be found in the knowledge added Value System of Taiwan doctoral dissertation. According to the research object, there are 4 primary school courses, 1 Preschool Children and 1 Teacher's teaching belief.

The research on Elementary School Curriculum tends to focus on the action research on the application of integrated music literacy in the implementation and learning of elementary school music curriculum, related articles include "action research on applying integrated music literacy to music teaching in the fourth grade of elementary school" (Zhong Xinyun 2017), "applying integrated music literacy to music teaching in the fifth grade of Elementary School" (Xiao Lishan 2016), "applying integrated music literacy to chorus in the fifth grade of elementary school art talent class, action research in the fifth grade of Elementary School" (Guo Fangxiu 2016), "application of integrated music basic ability model" to music learning in the fifth grade of elementary school, research on music learning of Grade Students" (Zhu Yan 2004). Most of the researchers refer to the Hanlin edition of Elementary School Art and humanities textbooks self-compiled teaching plan, sampling their own teaching students as the object, design and implementation of music curriculum teaching. During the course of teaching, attention was paid to students' learning state reaction, and various data were collected by means of video recording, reflection diary, lesson observation teachers and students' feedback forms. The application of integrated music literacy in the music class of elementary school can increase students' learning motivation, and the teaching design should be adjusted according to the unit's main axis, that is, each class should study around a piece of music, and at the same time balance the proportion of playing and creating activities. Using the integrated music literacy to improve the level of students' creative ability after the music teaching, to increase the sense of self-confidence after being stimulated and affirmed. It is suggested that teachers should constantly review the teaching results, actively absorb new knowledge, and make good use of the supplementary teaching materials to give students more room for development in creative writing.

In the "national music talent class solfeggio dictation teacher teaching beliefs research" (Hu Zhaoying 2002). The research takes the sight-singing dictation teachers in the music talent class of junior high school as the research object, and probes into the teaching beliefs of the sight-singing dictation teachers in six aspects, such as the educational goal, the curriculum content and the design, the teaching method, the teaching evaluation, the role of students and teachers, etc., and the factors that affect teachers' teaching beliefs. The main method of this paper is in-depth interview, with the aid of teaching observation and material analysis, the data is summarized, and trigonometry is used to check and verify. All of the above researches are on the integrated music ability teaching in elementary school, and there are relatively few researches on the professional system and higher education. There are four articles on tone training in the Taiwan literature database. They are:

- 1. "reflection on Taiwan opera music education" (you Suhuang 2005) from the School Professional Opera Education "Reading Music" curriculum discussion;
  - 2. An overview of integrated basic music training (Zhuo Fu, see 2013);
- 3."exploring the role of music sense training in music connotation inspiration -- Development and direction of Music Sense Training Course in College Music Department after the implementation of multi-entrance program" (Lu Shuling, Yang Xixuan, 2005);
  - 4."New Direction of integrated music basic training" (LV Wenci 1995).

These articles break away from the formulation of the primary education teaching program, transfer the research object from the students to the musical sense training itself, and explore the connotation and prospect of the integrated musical ability by exploring the methods of the musical sense training.

#### RESEARCH METHODOLOGY

#### 3.1 BIBLIOGRAPHIC method

Literature research method is to select topics, through the paper books, e-books, as well as collected papers or works, to obtain information on related topics, and collate relevant information with the subject to be analyzed, finally, the author has original opinions on chosen topic and expresses them completely in the thesis. I used the literature research method during the thesis writing, mainly through the Chinese mainland, Taiwan academic literature database, and Taiwan Area Taiwan doctoral dissertation knowledge value-added system and other sites to collect data. First of all, the SOLFEGGIO disciplines have a deep understanding. Secondly, the author combs the historical evolution of the integrated music competence curriculum in Taiwan, and finally, understands the emergence of the concept of integrated music competence and analyzes the impact of its application in Taiwan.

#### 3.2 Classroom observation

Classroom observation means that the researcher or observer collects data directly or indirectly from the classroom situation with a clear aim by means of his own senses and related auxiliary tools, and based on the data for the corresponding study of an educational science research method the author in-depth National Taiwan University of Arts Integrated Music Ability Curriculum classroom, study and experience the curriculum characteristics and related concepts of the integrated music training .

#### 3.3 Comparative Research Approach

Comparative Study is a method to study and judge the degree of similarity or dissimilarity between things and people, which can be understood as an investigation of two or more related things according to certain standards, after comparing the educational

concepts, teaching models and teaching methods used by the mainland and the Solfège in Taiwan, according to the similarities and differences, this paper makes a detailed analysis and summary of the regional cultural differences, the level of students, classroom emphasis and so on.

#### 3.4 Interviewing

In the paper data collection stage, need to visit the site and related teachers for interviews. Design the outline before the interview, ask questions properly during the interview and collect relevant information accurately, and comb the information quickly during the interview, and adjust the follow-up questions accordingly. After the interview, classify and sort out the existing information, and summed up the mystery of the study, and related teachers in the mail to communicate with the rationality of the paper.

#### **RESULTS AND FINDINGS**

#### 1. Tonal training

Tonality exists in scales, and in this course, tonality is used in listening and Solfeggio. Tonal melody is divided I nto three parts, which are tonal hearing, tonal determination and tonal notation. First of all, listen and debate the melody of the students to grasp the fixed pitch, and master the skilled notation, in the instant memory can be quickly perceived pitch, and rhythm elements. The appearance of melodic lines represents the establishment of tonic tonality for tonal listening and defense exercises. In order to adapt to the students who major in various kinds of musical instruments in the class, the students who study composition, conducting and playing western musical instruments have to face the reading of multispectral numbers such as Alto, mezzo-tenor or score, etc. adding multi-clef elements into listening and debating exercises can not only better adapt to the comprehensive reading ability of students majoring in different subjects, but also to a certain extent, enhance the grasp of tonal sensuality and improve the analysis efficiency of works analysis, the Concept of integrated music is fully implemented.

Solfeggio is the training of basic musical qualities, such as sense of hearing, sense of rhythm, sense of Timbre, strength and speed. The subject of Solfeggio was included in the curriculum of the Paris Conservatory of Music in the 18th century. Solfeggio is one of the most important parts of Solfeggio. It not only practices the expression of pitch, but also forms the concept of pitch in the mind. The solfege concept is the same as the solfege concept in the integrated music ability course, which is an auxiliary practice for training and music accuracy. SOLFEGGIO is composed of three elements: rhythm, melody and harmony, rhythm is the characteristic of the periodical phenomenon caused by the perceptual structure in repetition, and it is the metonymy of prosody, melody is the memory form of a piece of music and a sentence; Harmony is the three-dimensional structure behind the melody line. Hans Lick once said: "The music, the primitive element of the harmonious sound, its essence is the rhythm. " . The harmony of symmetrical structure is the broad sense rhythm, each part moves regularly according to the rhythm, this is the narrow sense rhythm. Melody is the basic image of musical beauty; harmony brings about a myriad of changes, transpositions and intensities, which constantly provide novel material; rhythm makes the combination of the two lively. This is the lifeblood of music, and these elements express the idea of music, a complete expression of music is independent of the United States the study and practice of score is a key course in National Taiwan University of Arts, in performance, the Music Department offers a music score course; half of the exercises in the introductory piano sight reading and accompaniment course revolve around Bach's 371 four part hymns; and in the course of electronic music production, teachers will ask students to create electronic music on the basis of score. In the integrated music ability course, the score reading exercise and polyphonic content listening are also a focus of the exercise. The reading exercises of the score are mainly trained by Solfeggio with single voice and Solfeggio with multiple voices. Teachers will prepare Solfeggio with different clefs for students to practice. Students will be exposed to Solfeggio with different clefs in class, through these solfeggio to familiar with the score table of the performance mechanism, so that we can integrate conducting, composition, orchestral performance and other disciplines, for future music career to broaden the road. Integrated Music concept in this exercise, the integration of the Melody Listening and defense, Solfeggio practice and shift in tune, through the SOLFEGGIO and dictation process to contact all regions, multi-cultural audio materials, accumulate students' music experience, expand the music material reserves, through the social, aesthetic and historical context, explore the elements and organization of all kinds of world music material.

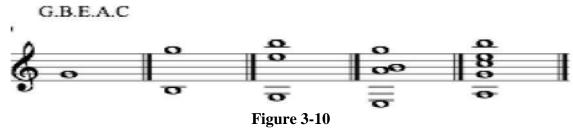
#### 2. ATONAL training

ATONAL MELODIC exercises complementary to tonal melodic exercises evolve into new forms of practice. Mainly through dictation and Solfeggio training to develop fixed pitch perception. Absolute Pitch, also known as pitch, refers to the ability to perceive the actual pitch of a sound. It is divided into the following levels:

- 1. Being able to distinguish between two different pitch sounds.
- 2. Can Accurately Mimic the sounds you hear.
- 3. To know the actual pitch of the sound you hear, and to say the name of the sound.
- 4. The actual pitch of a piece of music.

The first two suggest a good sense of hearing and the ability to accurately imitate the sounds heard. The latter two must have a sound and symbols between the mutual conversion process, must undergo a system of strict training to achieve the two free conversion . training in absolute pitch is divided into heap and interval exercises.

"Yin Dui" is the first item of listening practice. The word "Yin Dui" was put forward by American musician Colin Coville and refers to a form of music he created. As the name suggests, the sound stack is a sound effect produced by the stacking of multiple sounds. In the integrated music ability course, the practice of the sound stack is the first step in training the fixed sound sense. Because the position of the old notes changes as new notes are added to each bar, large spans of dissonant intervals are often found in tonal heap problems, as shown in figures 3-10.



The sound pile exercises not only increase the difficulty of listening, but also improve the training efficiency of absolute sound sense. The practice of Yin Dui also lays a foundation for the following exercises of Reading Music score and multi-clef listening, debating and sight-singing.

Interval is the second part of the training of fixed pitch. Although it only consists of two sounds, interval plays an important role in listening practice. Its function not only strengthens the fixed sound sense practiced by the sound heap, but also makes the contribution for the relative sound sense training. In atonal Solfeggio, the interval is the yardstick to measure the relationship between the front and back sounds, and through the

practice of fixing the sense of sounds, we can cultivate the psychological reaction to the different quality intervals, and transform the form of sounds into the yardstick to measure the musical sounds, so as to consolidate the absolute sense of sounds, and the goal of developing a sense of relative pitch.

In the Solfeggio part of the training for pitch, the non-tonality exercise is called the "interval accuracy exercise" . The notes in the picture are in degrees of magnitude two, magnitude three, and purity four and purity five. The practice takes the interval as the sound benchmark, measures the sound and the sound relations, thus carries on the composition to sing.



**Figure 3-11** 

After the practice of interval composition singing, we can carry out the formal training of atonal Solfeggio. The practice in class emphasizes the practice of pitch and accuracy, and combines with the rhythm. In atonal Solfeggio, the main emphasis is on the practice of fixed pitch.

The SOLFEGGIO exercises for pitch accuracy promoted the formation of students' fixed pitch ability and the confusion of fixed pitch and relative pitch, national Taiwan University of Arts and Lili Liu have their own views on integrated music ability. Zhuo Fujian, a teacher who taught integrated music skills in his freshman year, believes that the cultivation of fixed pitch should be natural and gradual, students must undergo training in monomonality, near Modulation, far modulation and polytonality. When they reach a certain level of listening training, they can naturally listen to free-tonality or atonal melody. However, in the process of learning, the need to stress the correct teaching methods, students should develop the habit of listening attentively to the complete melody. For example, when practicing, to two bars or three, four bars, such as the complete phrase or paragraph, after listening to debate in the whole process to think about listening difficulties and doubts, in time to do a good job of practice train of thought. Such a long-term practice, in order to develop students rapid response to the music auditory skills. Professor Zhuo Fujian also thinks that the training of fixed pitch is a subject worth studying, which directly affects people's understanding of the nature of musical acoustics and the way of people's cognition in musical thinking, it influences the development of music maturity, creation and imagination. He advocates that the major music institutes in Taiwan should strengthen the research on integrated music competence courses and apply for the right to train the bachelor's and master's degrees.

#### 3. Creative training of musical motivation

In the classroom of the integrated music ability course, the most interactive part is the creative training of music motivation, which is more effective in the class with more students. First, the teacher determines the CLEF, the beat and the tonality, and then gives the melody motive. The students create the melody according to this motive, which can be used in Solfeggio or dictation, as in figure 3-12. The melodies created by the students will be exchanged at class level. They will be practiced separately and sung one by one. The teacher will select some suitable melodies for dictation in the whole class to integrate the sight-singing and dictation exercises.



It is one of the highlights of the course to arouse students' interest by improving students' participation, and it is also the idea advocated by the three major music teaching methods. The successful application of the creative training of musical motivation in the integrated music ability course is not only the integration of participation and interest points, but also the integration of the practice with the theory of composition techniques, harmony and teaching methods, improve the interest of students at the same time, but also improve the advanced and scientific nature of the curriculum. To enable students to really find their presence in the classroom, and to gain the way.

#### 4. Three regions music style enhancement

With the development of the Times, all countries are aware of the important role of their national culture in national cohesion, which can awaken the sense of belonging of the people and is also an expression of emphasizing patriotism, it is reflected in all fields: Literature, film, Music, Fine Arts, and so on, in foreign countries, there are the eighteenth century in Europe active in the national music, in the domestic, there are thousands of years of Confucianism, these are the cultural highlights of each country's own nation. With the development of nationalism, its spirit has also infiltrated into the cultural fields, solfeggio discipline is no exception. From New Culture Movement, from school songs to French Solfeggio, we have been learning from foreign textbooks, and there is no suitable textbook for any subject. With the development of China's national strength, more and more overseas students return to China to make contributions, and our cultural level has developed rapidly, including the nationalization and innovation of sight-singing and dictation programs. In Taiwan area, there are a lot of musicians to collect the local culture, this activity is not only for the protection and inheritance of aboriginal culture, but also for the collection of music materials for creative, teaching added power.

In the integrated music ability course, Solfeggio is not only a precise practice of pitch, but also a tool for understanding artistic treatment and sound embellishment, through the combination of Aboriginal Music and Solfeggio, students learn about the musical styles and history of different ethnic groups, as well as the different ways in which each group deals with music. Like the Alpine peoples of Atayal people and AMIS people, the musical texture is slightly different. The basic sound texture of Atayal people is divided into three-tone texture and four-tone texture, as shown in figure 3-13, one is a three-tone texture, and two is a four-tone texture. Amis people has a PENTATONIC system.

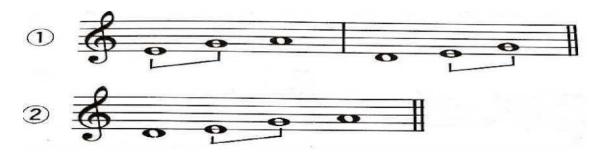


Figure 3-13 Taya

In the form of singing, Atayal people evolved from the CANONIC polyphony of the time to the monophonic singing of today. And Amis people still maintains its best single-part melody singing, polyphonic singing in the free counterpoint is also a feature of AMIS people. Through two "happy songs" we can feel the texture of the music of the two communities, singing different. Figure 3-14 is Atayal people, figure 3-15 is Amy.

### 歡樂歌(泰雅族)



Figure 3-14 Taya

481943年,黑澤隆朝採譜,台東台東郡

### 歡樂歌(阿美族)



Figure 3-15 AMIS people

Over the years, many artists and ethnologists have devoted themselves to the aboriginal art collecting movement, recording and composing many Aboriginal Traditional Music, and making great contributions to the protection of Aboriginal Culture. The Taiwan Provincial Government has also introduced a number of multi-ethnic assistance policies to respect the cultural differences of aboriginal communities and special programs to assist in the development of communities. And in order to promote the ability of teachers and students to listen, speak and use the local language, to appreciate the beauty of various local languages and local music, and to gain a deep understanding of Taiwan's cultural heritage, the Ministry of Education is continuing to handle the "national teachers and students local, ballad competition." Through these activities, greatly enriched the national solfeggio material, and students through the practice of National Solfeggio, also can in-depth understanding of the nation's glorious culture can be said to kill two birds with one stone.

#### 5. Memory training of sound and image

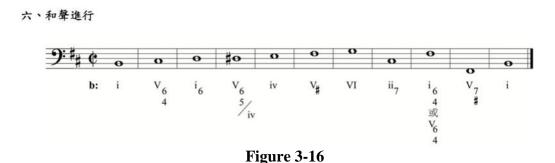
Sound image memory is a kind of sensory memory that is specific to auditory information. The sensory memory that people perceive sound is the form of sound image memory. The sound image memory in music refers to the transient memory formed in the human brain after the melody is presented a certain number of times, and the process from the brain to the physical record is called the sound image memory. In the integrated music ability course, the application of audio-visual memory to the Melody Dictation Board is to investigate the students' instantaneous memory of rhythm and melody.

### 6. Harmony integration ability training

## 6.1 Vertical Dimension Training In the integrated music ability cou

In the integrated music ability course, the vertical dimension training of harmony is divided into two parts: the Chord Training and the practical application of harmony. In the chord training, the Individual Chord audibility only needs to write the chord's attribute, the harmony function training stage, the practice emphasis favors the function to be familiar with and the pitch not to request excessively, regardless is practices or the examination, after giving the tonality just write out the Chord Bass and function, as shown in figure 3-16.

In harmony:



If you have the ability to write out all the chord pitch, but does not count points. This training aims to establish the concept of three-dimensional harmony while cultivating the use of harmony in music works. Because in music, well-trained people are more inclined to consciously explore the expressive ability of music, so the hearing of chords is not only the basis of harmonic function, it is also an important factor in the development of musical expression and perception, and the training is not limited to triads and sevens, but extends to hanging chords and increasing sixths, increase the difficulty of listening and at the same time for the future creation of music to lay a solid foundation. In the course of integrated music ability, students are exposed to various chords in the course of keyboard harmony, and learn

the functional process of various chords in the course of harmony, finally in the integrated music ability course, harmony function listen and argue.

The harmony elements that make up the melody texture and the musical form elements that frame the music become the focus of the following music sensation cultivation. In musical art, the frequency produced by the notes superimposed on a chord is harmony, describing the melody, the Chord Support of the texture supported behind the line, and the subsequent melodic line developed through the function of harmony. The form is the structure and skeleton of the music, the music is divided into paragraphs of obvious chapters, so that the work on the level of Patchwork, clear-cut. In the history of music, different musical forms have been developed, and the forms represent the modes of music popular in each period. For example, Baroque, fugue or variation forms are the most popular, and composers create their works subjectively according to their format structure, is a balance of the allocation of musical instruments of the discipline, the main research area in the use and distribution of orchestral instruments, but also to study the cooperation of other instruments. Through a variety of musical instruments unique sound attributes for intra-band harmony, better interpretation of the music content and style.

#### 6.2 Horizontal Company and Training

In 1892, Felix Mendelssohn Bartholdy's re-enactment of the St Matthew Passion caused a sensation, a "Bach fever" in continental Europe, and a major influence on the revival of Bach's work. Later, the musician, known for his rigor, structure, and logic, was a devout Luther, and most of his works were religious, including 371 titillations by stimmige chorchorchorgesalange, the 371 hymns were translated as "Bach's 371 four-part hymns" in mainland China and "Al Bahah chants" in Taiwan, and played an important role in the Taiwanese curriculum. These 371 four-part hymns will be selected for the integrated music ability course. Its main practice way is the melody horizontal even and fills in the blank, in order to suit the classroom training, the teacher has done some simple in the work itself foundation Readjusting. Figure 3-17 is the original work of Bach's chant, in which the four voices are written into two clef numbers.



**Figure 3-17** 

In the process of practice, in order to make the students more suitable to the four-part practice pattern, the teachers put the four-part melody into four notation, as shown in figure 3-18. On the one hand, this arrangement is conducive to writing, on the other hand, because Bach's dictation of the four parts is more difficult than other exercises, this arrangement of the spectrum can not only reduce the difficulty of the exercises, but also can fully embody the melodic trend of the four parts.



Figure 3-18

Through the dictation and filling in of Bach's chant, a series of courses have been developed, such as the introduction to piano sight reading and accompaniment, in which Bach's chant is used as a part of the practice of rapid visual notation. Students adapt to their musical style in the oratorio dictation, understand the use of their church mode, and consolidate the sound effects of the four-part transverse connection through the extended course, at the same time, it also conforms to the study nature of the integrated music ability course, which integrates various music disciplines and music elements.

#### CONLUSION AND DISCUSSIONS

The idea of integrative music originated from America and was applied in Taiwan. With the efforts of a group of excellent teachers, it gradually became on the right track in teaching methods, teaching contents, school education and social application. Through the origin, inheritance and development of the integrated music ability curriculum, we can see that the integration of music elements represents the organic integration of the basic disciplines of music, and the related learning between disciplines, it not only improves the learning efficiency of one subject, but also promotes the teaching of the basic subjects in music learning, strengthens the understanding of other subjects in the course, what is learned in the course, improves the learning efficiency. Its value lies in the comprehensive and inclusive training of musical ability and the cultivation of students' ability of self-exploration; its educational value lies in the integration of the basic elements of music and the emphasis on a series of extended courses throughout one's life, to achieve the goal of lifelong transformation.

As one of the highest art schools in Taiwan, the National Taiwan University of Arts has advanced educational concepts and a good reputation, and has trained generations of outstanding musicians, this is due to their strict teaching arrangements and scientific teaching philosophy, efforts to absorb excellent teachers, improve the strength of the school's software and hardware, so that the school is growing. And Its integrated music ability course, as a required course for both the minor and double majors of the music department, adds a huge boost to the training of outstanding graduates in the school, enabling students not only to develop mature playing skills while they are studying in the school, the understanding of the music basic accomplishment also gradually deepens, and then produces the influence of music education for life. This paper analyzes the teaching practice of the integrated music ability course, and its ultimate goal is still to comb out the teaching contents and models suitable for the mainland in its teaching concept and value system, and to select its essence, to Chinese mainland's solfeggio teaching system.

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# THE INFLUENCE OF WORD-OF-MOUTH ON THE PURCHASE DECISION OF INTERNET CONSUMERS

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## **ABSTRACT**

Under the network environment, the spread of word of mouth has a new feature, is no longer the one or more under a single line. At the same time, there are a lot of word of mouth, not only affectting the reputation of the enterprises but it also will purchase behaviors of consumers.

In this paper, catering consumer is the object of study, By collating and summarizing research scholars on traditional word of mouth, networking reputation, word of mouth and other effects on purchasing behavior and consumer word of mouth effect, we will select independent variables from three aspects, and the perceived risk as a mediating variable, trust propensity as the moderator. About word-of-mouth sender ,we will select five variables: sender professional; the aspects of the network reputation feature selected five variables: the number of word of mouth network, the information intensity, content subjectivity, timeliness and visual effects; recipient areas select a variable: the degree of network involvement of negative word-of-mouth recipient. Through these variables, building a research model ,By designing and collecting data, and then using SPSS statistical software for mathematical statistical analysis, then finish significance testing,

Modify the model based on the test results. Finally, explaining the result and Putting forward effective measures for the enterprises. So it has a important significance to manage tne negative iwom for enterprises.

**Keywords:** Internet word-of-mouth, Buying intention, Trust propensity, Catering

## **INTRODUCTION**

Under the upsurge of online shopping, online shopping has also developed rapidly. As of the end of 2011, in the ranking of the growth rate of online services, online shopping has become the second fastest growing online service throughout the year. The number of consumers participating in online shopping reached 64.65 million, with an annual growth rate of 244.8%. the purchase decision-making consumption in 2013 was 18.78 billion yuan, a net increase of 9.21 billion yuan over 2012, an annual growth rate of 97.8%, accounting for 52.4% of the market share for the whole year. The main consumer group for purchase decision-making is the white-collar group (HANSON 2003), Research data show that 60% of white-collar workers will use the Internet to check food websites in advance before going online to prepare for online shopping. And in order to obtain greater benefits, they will be more willing to choose online shopping, and 56.5% of these white-collar workers will browse the word-of-mouth reviews of online shopping platforms through food websites (Hennig-Thurau, 2003).



The size of China's mobile internet users and their proportion of the overall netizens. This article will discuss the research on the impact of Internet word of mouth on consumers and test the significance of the research hypothesis.

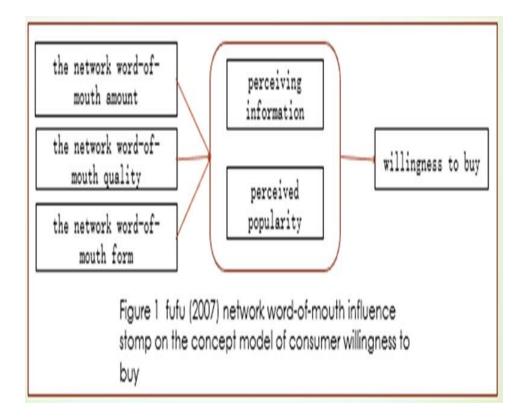
## LITERATURE REVIEW

## 2.1 The concept of word of mouth

Huang Minxuan (2011) believes that word-of-mouth refers [to the consumer's approval or dissatisfaction with the use or consumption experience as different as expected, and the consumer conveys the experience through the network channels to those who know or do not know each other, and suggests that everyone actively or carefully buy the process.

#### 2. 2 Network word-of-mouth characteristics

In this paper, the research variables of network word-of-mouth characteristics are mainly quantitative research variables. In recent years, the rapid development of the Internet has upended the traditional business shopping model. Then the influence of word-of-mouth on consumer shopping decision-making has attracted scholars to start researching. For example, fufu (2007) network word-of-mouth influence stomp on the concept model of consumer willingness to buy, only from the network word-of-mouth characteristics of the selection of research variables, without considering the word-of-mouth sender and receiver characteristics. The results show that the quantity, quality and network word-of-mouth information form of network word-of-mouth will influence consumers' willingness to buy by perceiving information and perceived popularity, and perceived information and perceived popularity are the intermediary variables in the research model, as shown in Figure 1. Finally, for the business to put forward rationalization proposals, that is, to enrich the network word-of-mouth information, increase its credibility.



## RESEARCH METHODOLOGY

## 3.1 Model building

Build a model research environment. The emphasis is on the theory of communication process, from the characteristics of the spreader, the characteristics of word-of-mouth information and the characteristics of the recipient of word-of-mouth. The effect of word-of-mouth communication can be represented by the strength of the consumer's willingness to buy decisions. Two arguments, namely, the subjective content of word-of-mouth and the degree of network involvement of the recipient.

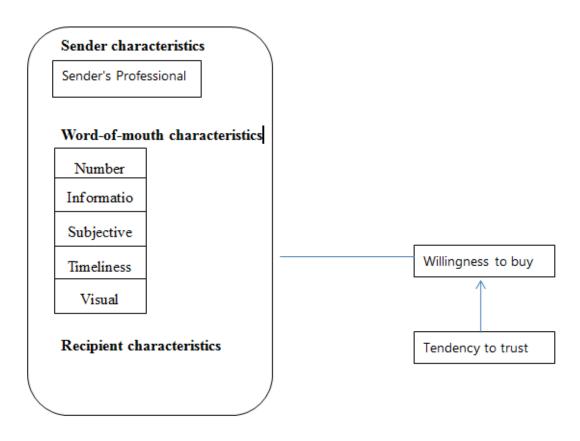


Figure Research model for this article

## 3.2 Model Assumptions

3.2.1 Study hypothesis of the influence of word-of-mouth sender characteristics on online shopping wishes Bloch et al. (1986) argues that consumers tend to view highly professional word-of-mouth publishers as opinion leaders, and that consumers are more likely to use opinion leaders' comments and judgments on products as a clear source of information, and more likely to trust their opinions and judgments. The professionalism of the sender is often seen as an important factor in influencing the effectiveness of word-of-mouth communication. Therefore, the study of this variable assumes the following:

H1: Word-of-mouth senders' professionalism is significantly affecting consumers' willingness to buy online.

3.2.2 Study hypothesis of the influence of word-of-mouth characteristics on the willingness to buy online

## 1) Number of word-of-mouth

Consumers will usually habitually consult friends around them before shopping online, or go online to inquire about information about goods or services to buy and other consumer word-of-mouth comments on this, when they see negative comments, will not immediately accept the word-of-mouth comments, but will continue to search for other consumers with the same experience of purchase, if you continue to browse the process, negative comments about this goods or services frequently appear, will inevitably make people suspicious and alert, This can therefore also affect the willingness to buy. Therefore, the study of this variable in this paper is based on the following assumptions:

H2: The number of word-of-mouth is significantly affecting consumers' willingness to buy online.

- 2) The strength of word-of-mouth information
- Li Xiao lin (2007) defines the strength of word-of-mouth information: refers to the positive intensity of the word-of-mouth message described by the receiver to the sender. Strong network word-of-mouth information often leaves a more profound impression on consumers. Therefore, the following assumptions are made:
- H3: Word-of-mouth information intensity is significantly affecting consumers' willingness to buy online.
  - 3) The subjectivity of word-of-mouth content

Subjective word-of-mouth often makes the recipient feel that this is the publisher's personal experience, with greater persuasiveness. Therefore, the study of this variable in this paper is based on the following assumptions:

- H4: The subjectivity of word-of-mouth content is significantly affecting consumers' willingness to buy online.
  - 4) The timeliness of word-of-mouth

(Bailey and Pearson, 1983) Believes that the more time-sensitive the network is, the more significant the impact on word-of-mouth communication. Therefore, the study of this variable assumes the following:

H5: The timeliness of word-of-mouth is significantly affecting consumers' willingness to buy online.

5) Visual effects of word-of-mouth

When the sender posts word-of-mouth information in the form of text, pictures, animation and other forms of display, or a combination of forms of display, to the recipient to bring a degree of visual feeling. Therefore, the study of this variable assumes the following:

H6: The visual effects of word-of-mouth are significantly affecting consumers' willingness to buy online.

3.2.3 Study hypothesis of the influence of word-of-mouth recipient characteristics on online shopping wishes

Internet users with a deep degree of network involvement are often able to operate the Internet skillfully, and now for other network-involved netizens who are not deeply involved in the network, their ability to judge the network word-of-mouth information is also strong. Therefore, the study of this variable assumes the following:

- H7: The recipient's network involvement significantly affects the consumer's willingness to buy online.
  - 3.2.4 Research Hypothesis of The Regulation of Trust Tendency

Lee (2000) believes that an individual's tendency to trust in online shopping affects their online shopping trust, and that in a complex word-of-mouth environment, the same word-of-mouth will have a different impact on the willingness to buy because of the difference in individual trust tendencies. Therefore, the following assumptions are being made in this study:

H9a: Trust tendency plays a regulatory role in the relationship between word-of-mouth sender's professionalism on the willingness to buy online.

H9b: Trust tendency plays a regulatory role in the relationship in which word-of-mouth quantity affects online shopping intentions.

H9c: Trust tendency plays a regulatory role in the relationship between word-of-mouth information intensity and the influence of online shopping intentions.

H9d: Trust tendency plays a regulatory role in the relationship between word-of-mouth content subjectivity and the influence of online shopping intentions.

H9e: Trust tendency plays a regulatory role in the relationship in which word-of-mouth timeliness affects the willingness of online shopping.

H9f: Trust tendency plays a regulatory role in the relationship between the visual

effects of word-of-mouth on the willingness of online shopping.

H9g: Trust tendency plays a regulatory role in the relationship in which the recipient's network involvement has an impact on the willingness of online shopping.

## 3.3 Questionnaire design and data collection

## 3.3.1 Measurement of variables

In the study of this paper, all the measurement items are in the form of a Likett seven-stage scale.

- 1) Word-of-mouth sender's professionalism is divided into 3 measurement questions
  - 2) The number of word-of-mouth is divided into 4 measuring questions
- 3) Word-of-mouth information strength is divided into 4 measurement questions
- 4) The subjectivity of word-of-mouth content is divided into 3 measuring questions
  - 5) The timeliness of word-of-mouth is divided into 3 measuring questions
- 6) Word-of-mouth visual effects are divided into 4 measurement questions
- 7) Word-of-mouth The recipient's network involvement is divided into 3 measurement questions
  - 8) Trust Tendency Divided into 4 Measurement Questions
  - 9) Online shopping intentions are divided into 3 measurement questions

## 3.3.2 Questionnaire Design

The design of the questionnaire format is as follows: The first part is the introduction of the subject and purpose of this questionnaire, and emphasizes that the personal information of the respondents will not be disclosed.

## 3.3.3 Inspection Methods

## 1) Validity test

The validity test mainly includes the test of content validity and architectural validity. First of all, through the KMO value and Bartlett sphere test value of these two values to determine whether the study variable is suitable for factor analysis, and then through the rotational factor analysis for validity test, the common 的 factors in the variable group into a category, delete the non-conforming measurement items.

## 2) Credibility test

The credibility test is used to verify the stability of the questionnaire measurement results, which is typically used to evaluate the credibility by the Cronbach alpha value. As for the criteria for the questionnaire to pass the confidence test, Li Waizu (2004) believes that the Cronbach alpha value should be greater than 0.7, which is the view of most scholars, and some scholars think that it is greater than 0.6.

## 3.3.4 The distribution and recovery of questionnaires

For research topics and research objects, the formal research of this study mainly through online channels to distribute questionnaires. The survey lasted three months, with a total of 509 valid questionnaires distributed through the survey line. Of these, 341 were targeted and 333 were recovered from JD.com stores, of which 330 were valid questionnaires, and 185 questionnaires were distributed and 181 were recovered by other participants, of which 179 were valid questionnaires.

#### DATA PROCESSING AND ANALYSIS

## 4.1 Anova Analysis

# 4.1.1 Descriptive statistical analysis

Firstly, the survey subjects of the effective questionnaire recovered were analyzed to verify whether these demographic variables had an impact on the willingness of online shopping, secondly, the reliability and validity analysis of the overall questionnaire was again, and finally the study hypothesis proposed in this paper was tested for significantness through relevant analysis and regression analysis, and then revised the research model.

## Descriptive statistical analysis

Index	Indicator value	Frequency	Percentage
Gender	Man	238	46. 8%
	Woman	271	53.2%
Age	Under 20 years of age	10	1.9%
	21-25	79	15.5%
	26-30	196	38.5%
	31-35	128	25.2%
	36-40	59	11.6%
	41 years old (inclusive) or	36	7.1%
	older		
Buying decision-	U.S. Mission	201	39.5%
making often go to the	Hand-in-hand net	63	12.3%
online shopping	团 800	15	2.9%
platform	Popular Review Network	130	25.6%
	Rice Net	61	12.0%
	Full	5	1.0%
	Nest sings	18	3.6%
	Clicks	0	0%
	Other	16	3.2%

Index Indicator value

Frequency

Percentage

## 1) Sex

The results showed that the proportion of men and women in the survey was 46.8% and 53.2% respectively, and the proportion of women in the respondents was slightly higher than that of men, because the fashion, convenience and entertainment of online shopping were more consistent with women's shopping habits. Therefore, the sex ratio of this questionnaire is more reasonable.

## 2) Age

By the age group statistics can be found that 26-30 years of age accounted for 38.5% of the number of valid questionnaires, this age group of respondents are the largest. This was followed by a sample of 31-35 year olds, representing 25.2 per cent of the number of valid

questionnaires. That is, most of the young people surveyed were young, because younger groups were more familiar with the online environment and were better able to provide research data. This is consistent with the conclusions of the pre-research and is in line with our research needs.

## 3) Buying decision-making often go to the online shopping platform

The U.S. group network had the highest popularity, at 39.5 percent, followed by the public review network, at 25.6 percent, and the ratio of hand-holding and rice networks to close, at 12.3 percent and 12.0 percent, respectively.

#### 4.1.2 Variance Check

The premise of variance analysis is that each group's population obeys the normal distribution of the variance equal, in which the requirement of normal distribution is not very strict, but the requirement of the variance equality is more strict. Therefore, the anovatic test should be carried out to ensure the premise of anovatic analysis.

## Variance Qiqi Test Results

F	Freedom 1	Freedom 2	Significance
1.194	50	458	.179

The variance tint of Table shows that the associated probability is 0.179, greater than the given significance level of 0.05, and therefore the original assumption is that the overall variance of each group is equal and meets the prerequisites for variance analysis.

## 4.1.3 Multi-factor variance analysis

To verify whether the different levels of these control variables of gender, age, and purchase decision-making have an impact on consumers' willingness to buy, the results are analyzed here using gender, age group, and the websites frequented by purchase decision-making, respectively, for a variance analysis of the willingness to buy online, as shown in Table .

## The test of intersubject effect1

	Freedom	Average	F	Significance
Gender	1	.435	.615	.433
Age	5	.554	.783	.563
Online shopping platforms where	6	.820	1.160	.327
buying decisions are often made				
Gender - Age	4	.199	.282	.890
Gender: Online shopping	6	.732	1.034	.402
platforms where purchase				
decisions are often made				

The test of intersubject effect2

	Freedom	Average	F	显著性
Age- and purchase decisions	18	.715	1.011	.445
often go to the online shopping				
platform				

Gender- * age group - Online	9	.367	.519	.861
shopping platforms that often go				
when making purchases				

As can be seen from the table above, the influence of the interaction of the various control variables on the willingness to buy online is much greater than 0.05,so the overall means of each control variable are proved to be no significant difference at different levels of multiple control variables. From this, it can be seen that the impact of word-of-mouth on consumers' willingness to buy decisions will not vary depending on the gender, age and purchase decisions of the respondents who often go to the site.

## 4.2 Reliability and validity test

## **4.2.1 Confidence Test**

In order to ensure the scientific nature of the scale, 509 questionnaires will be collected, it will be carried out a further credibility analysis to ensure the reliability of the formal questionnaire. The results show that the centivity coefficient of Cronbach alpha coefficient of each variable and the aggregate table is above 0.7, which shows that the large sample questionnaire recovered has high reliability, stability and consistency, and has good reliability.

## 4.2.2 Efficacy test

The 509 questionnaires collected again validity test, still through the KMO test and Bartlett sphere test to determine whether the measurement item is suitable for factor analysis, the results show that: the measurement item KMO value is above 0.7, and the Bartlett sphere test of the associated probability P value is less than the given significance level 0.05, each study variable in the extracted factor load value is greater than 0.5, indicating that the sample validity of the sample. Further analysis and research can be carried out.

## 4.2.3 Regression analysis

Regression analysis is more specific and comprehensive than the related analysis of the relationship between variables, can further explain how one variable affects another variable, and through a certain regression equation to specify this causality, describing the different changes of the variables on the influence and degree of influence of the dependent variables.

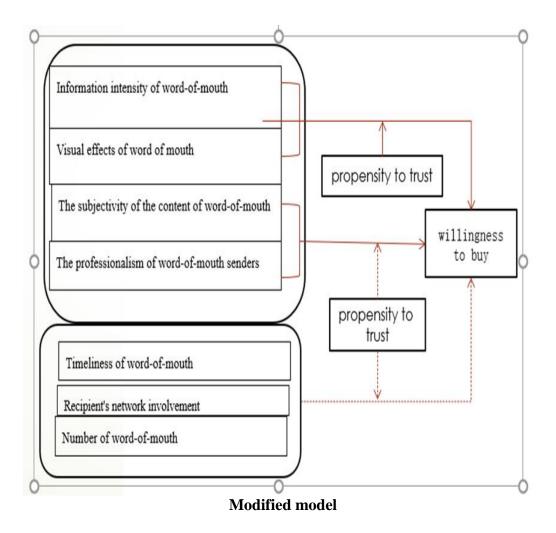
## 4.3 Hypothesis Test Results and Model Corrections

The data of 509 questionnaires were analyzed using SPSS statistical software, including reliability and validity testing, anova analysis, and regression analysis. The results of the test are shown in the table, and the modified model is shown in the figure.

Study Hypothesis Test Results

Number	Study assumptions	Test results
H1	Word-of-mouth sender's professionalism is significantly affecting consumers' willingness to buy online	Was founded
H2	The number of word-of-mouth is significantly affecting consumers' willingness to buy online	Not true
Н3	Word-of-mouth information intensity is significantly affecting consumers' willingness to buy online	Was founded
H4	The subjectivity of word-of-mouth content is significantly affecting consumers' willingness to buy online.	Was founded

Number	Study assumptions	Test results
H5	The timeliness of word-of-mouth is significantly affecting consumers' willingness to buy online.	Not true
Н6	The visual effects of word-of-mouth are significantly affecting consumers' willingness to buy online.	Was founded
H7	The extent of word-of-mouth recipients' network involvement is significantly affecting consumers' willingness to buy online	Not true
Н9а	The tendency of trust plays a regulating role in the relationship between the professionalism of word-of-mouth sender sending and the willingness of online shopping.	Not true
H9b	The tendency of trust plays a regulating role in the relationship in which the number of word-of-mouth has the influence on the willingness of online shopping	Not true
Н9с	Trust tendency plays a regulating role in the influence relationship of word-of-mouth information intensity on the willingness of online shopping	
H9d	The tendency of trust plays a regulating role in the influence relationship of word-of-mouth content subjectivity on the willingness of online shopping	Not true
Н9е	The tendency of trust plays a regulating role in the influence relationship of the timeliness of word-of-mouth on the willingness of online shopping.	Not true
H9f	Trust tendency plays an regulating role in the influence relationship of word-of-mouth visual effect on the willingness of online shopping	Was founded
H9g	Trust tendency plays an regulating role in the influence relationship of word-of-mouth recipient's network involvement on the willingness of online shopping	Not true



#### **CONCLUSION**

The independent variables were selected from the three aspects of the sender's characteristics, the word-of-mouth information characteristics and the receiver's characteristics, namely, professionalism, quantity, information intensity, content subjectivity, timeliness, visual effect and the degree of network involvement of the receiver, and added perceived risk as an intermediary variable and trust tendency as an adjustment variable. Build the research model of this paper and put forward the research hypothesis. The mathematical statistical analysis of SPSS software is used, including variance analysis and regression analysis, hypothesis testing, and revision of the research model of this paper.

This study draws the following conclusions: the influence of the sender's professionalism, visual effect, information intensity and content subjectivity on the willingness of online shopping has passed the significance test, and the intention of online shopping is influenced by some intermediary role of perceived risk. The influence relationship between the number of word-of-mouth, timeliness and the degree of network involvement of the recipient and the willingness of online shopping did not pass the significance test, and the tendency of trust played a regulating role in the relationship between the information intensity of word-of-mouth and the influence of visual effecton on the intention of online shopping

According to the results of the study, the original research model is modified, and the reasons for the hypothesis test results are analyzed, which is based on the reasonable management suggestions for traditional enterprises and online shopping platforms.

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# THE ROLE OF PERFORMANCE APPRAISAL IN ENTERPRISE HUMAN RESOURCE MANAGEMENT

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#### **ABSTRACT**

The theme of this article is the role of performance appraisal in human resources management of enterprises. Taking Beijing Jietong Antai Technology Development Co., Ltd. as the research object, through in-depth interviews, we have a thorough understanding of the company background, business situation, job responsibilities, existing problems and solutions of Beijing Jietong Antai Technology Development Co., Ltd. Through in-depth communication with the general manager of the company and the person in charge of HR to understand the problems in the company's customer service department, and a detailed and in-depth analysis of the daily problems in the company, and finally solved some problems through the performance evaluation.

Starting from the early discovery of the company's customer service department, the staff did not actively answer the phone, the quality of the answer was poor, the professional knowledge was lacking, and the enthusiasm for answering the phone was low. Based on the job content and responsibilities, a detailed and specific job performance assessment was formulated Table, let employees know their job responsibilities, job tasks, job goals and work standards through the table. So as to improve the personal work efficiency and work quality of employees, but also improve the performance of the company, and achieve the goal of a win-win situation for individuals and companies.

After fully implementing in accordance with the content of the performance appraisal table, comparing the initial work performance, work results and various work efficiency of employees of the customer service department of the company, it has been greatly improved. It can be seen that the performance appraisal importance. Furthermore, it shows the significance and role of performance assessment in human resource management.

**Keywords:** performance appraisal, human resources, work tasks, work ability, work attitude.

## INTRODUCTION

## **Research Background**

In the rapid and rapid development of modern society and economy, the competition between various modern enterprises is also constantly escalating and accelerating. To gain a firm foothold, we need to strengthen our emphasis on corporate human resources management. Among them, performance appraisal, as an important means of enterprise human resources management, plays an important role in human resources management. It is hoped that through the review and analysis of this article, more enterprise managers will realize the importance of performance assessment in the growth and development of enterprises.

As an important tool for enterprise human resource management, performance appraisal plays a vital role in the execution of corporate strategy. The effectiveness of performance appraisal directly determines the effectiveness of enterprise management. The purpose of enterprise performance evaluation for employees is to increase employees'

enthusiasm for work, improve employee's work efficiency and performance of the enterprise, and thus promote the healthy, rapid, stable and sustainable development of the enterprise. (Dai Yuxin 2019)

Problem statement

Whether it is a small or medium-sized enterprise, a large enterprise, or a state-owned enterprise, they have experienced or are experiencing such a phenomenon: the company's outstanding employees ignore the retention of us and go away; the employees with potential in the department ignore the expectations of us and quietly go away; even The employees who spent a lot of money and time focusing on training, regardless of our heavy trust, let go, leaving enterprise managers with endless annoyance and sighs. What makes the company puzzled is that it always seems to be the one who should not go, but the one who shouldn't go is gone; the ordinary ones don't go, the excellent ones go. So, we can always hear the helpless songs of the company's HR managers over and over again: My dear employees, what do I use to keep you?

In today's fast-changing and competitive society, how to attract, motivate, reward, develop and retain outstanding employees faces huge challenges. The most critical factor is the company's department job analysis, performance appraisal and salary system. (Liang Xiaofei 2019)

research problem

With the continuous expansion of the development scale of modern enterprises, the importance of human resource management has become increasingly prominent. Performance evaluation, as an evaluation, analysis and application of factors such as employees' work attitude, efficiency and ability, is an important means for enterprises to achieve overall strategic goals. The purpose of performance appraisal is to increase the enthusiasm of employees, promote the rationalization of job assignments, and then promote the improvement of corporate performance. In view of this, it is of great practical significance to strengthen the analysis of the role of performance appraisal in enterprise human resource management. (Dai Yuxin 2019)

The goal and purpose of research

In the human resources management of enterprises, performance assessment plays an important role. In an environment of increasingly fierce market competition, modern enterprises have adopted the scientific nature of performance appraisal results, which in turn promotes the rationality of human resource management, and enables the enterprise to achieve sustained and stable development. (Liang Bo 2019)

## LITERATURE REVIEW

## 2.1 theory

The theoretical basis of performance appraisal is motivation theory and goal management theory, and the actual basis is performance assessment, ability assessment and attitude assessment. Performance evaluation is the key link of performance management. The success of performance evaluation directly affects the effectiveness of the entire performance management process. Performance appraisal mainly serves two aspects of management and development, the purpose is to enhance the operating efficiency of the organization, improve the professional skills of employees, promote the healthy development of the organization, and ultimately benefit the organization and employees. In addition, performance appraisal is connected with the organization's strategic goals, and its effective implementation will help to unify the employee's behavior to the strategic goals. The effectiveness of the entire

performance appraisal system is also of great significance for the organization to integrate human resources and coordinate the control of employee relations. Inaccurate or inconsistent performance appraisal will not have a positive incentive effect, but will bring a lot of obstacles to the organization's human resources management, which will strain the employee relationship and damage the team spirit. Therefore, both managers and employees should see the significance of performance evaluation. (Dong Xueying 2019)

## 2.2 Explanation of all variables

The evaluation results of performance evaluation are determined by five items: work performance evaluation, work ability evaluation, work attitude evaluation, work potential evaluation, and job matching evaluation. The overall performance evaluation results are dependent variables. The performance evaluation, work ability evaluation, work attitude evaluation, work potential evaluation, and job matching evaluation of the five evaluation projects are independent variables. They determine the final index data and performance effects of performance evaluation. (Dai Yuxin 2019)

## 2.3 Refer to previous articles to explain the relationship between variables

- 2.3.1 Work performance evaluation: It is mainly to evaluate the achievements of employees in the work process, as a measure of how much benefits employees bring to the enterprise, which is the core content of enterprise performance evaluation.
- 2.3.2 Work ability assessment: It is mainly a comprehensive evaluation of employees 'work ability, which includes professional skills and employees' work coordination ability, cooperation ability and so on.
- 2.3.3 Assessment of work attitude: it mainly evaluates the employees' work enthusiasm and proactiveness, which is reflected in whether they obey the work arrangement and whether they take the initiative to work.
- 2.3.4 Assessment of work potential: It is mainly to evaluate the comprehensive ability of employees, in order to analyze and tap the maximum work potential of employees.
- 2.3.5. Assessment of job matching: mainly to assess the degree of matching between employees and their jobs, as a standard to judge whether it is suitable for the current position, and at the same time to test whether the configuration of enterprise human resources management is reasonable. (Dai Yuxin 2019)

## 2.4 Conceptual or theoretical framework

Performance appraisal refers to the enterprise's use of some specific standards and indicators under the established strategic goals to conduct a detailed evaluation of the employees 'work results and daily work behaviors, and use the results of the evaluation to the employees' future work behaviors and performance The process and method of generating positive guidance. (Dong Xueying 2019)

## 2.5 Suppose

In the process of enterprise performance appraisal, there are some problems of one kind or another. These problems mainly include the unreasonable setting of indicators, the lack of a certain degree of science, the job job responsibilities are not clearly described, and the lack of effective feedback mechanisms and communication. Mechanism and so on.

Or there is a certain motivation for managers to objectively evaluate the work performance of their subordinates: when managers know that the results of performance evaluation directly affect the income and appointment and removal of employees, they are used to giving subordinates with poor performance a good evaluation result, and The evaluation results of the outstanding subordinates have not stood out. "Quieting people" is the

basic management philosophy of many managers. Who knows how much trouble they will cause if they accidentally offend which subordinate because of performance evaluation? Enterprise executives always complain that they have no time to ask about performance appraisals, and will not consciously supervise subordinate managers whether they are performing their duties when performing performance appraisals. The review or approval of appraisal results has always gone through. (Lan Qiang 2019)

#### RESEARCH METHODOLOGY

## 3.1 Research methods

This article uses a qualitative research method, through in-depth interviews with the company's general manager and HR head, and analysis of employee performance appraisal, to verify the role of performance appraisal in corporate human resources management. The research object is the customer service department of Beijing Jietong Antai Intelligent Technology Co., Ltd. This is a post that provides tax knowledge consulting services for Beijing taxpayers. The staff answers the tax knowledge by phone.

## 3.2 data collection

Through the post performance appraisal table, it is analyzed that after passing the performance appraisal, the staff's performance in all aspects of the work has improved. Performance appraisal mainly judges from the aspects of work tasks, work ability, work attitude, attendance rate and so on. The questionnaire is shown in Table A after the survey report.

Beijing Jietong Antai Intelligent Technology Co., Ltd. was established in 2005 to serve the taxation industry informatization construction. In order to further expand the business scope and enhance the company's image and trust in the national tax system, the services are more comprehensive and professional. The Tax Advisory Customer Service Department was established in 2019, and all staff must receive tax knowledge training and assessment before taking up their jobs, and receive taxpayer consultation calls at the tax bureaus of various districts in Beijing.

## 3.3 Sampling of samples

Collected and collected the performance evaluation results of the 30 employees of the customer service department for the past 3 months, and conducted an overall and detailed analysis of their monthly performance results. Each working day is 22 working days.

The research method is that after the management and HR of the company believe that the work performance of the company's customer service department staff needs to be rapidly improved, a performance evaluation form is formulated according to the job requirements.

Chapter IV Data Analysis, Results and Discovery

At the initial stage of the establishment of the consulting department, both internal managers and tax bureau managers, as well as the staff themselves, were very confused about this work, and thought that they did not do enough work well, or did not know what to do After the time, everyone thinks that passing the performance appraisal can improve all aspects of work and everyone's ability, as well as the satisfaction of Party A's tax bureau. After a summary of the previous work and job requirements, a work performance evaluation worksheet was developed.

#### **DATA ANALYSIS**

#### 1. Work tasks

A. Number of answers: The original phone rang, everyone pretended not to hear, no one took the initiative to answer the call, but after adding the number of answers to the work task, everyone was very active in answering the call, and the individual answered the total monthly The volume was 418 in the first month, 638 in the second month, and 814 in the third month; the total number of monthly calls received by 30 people was 12540 in the first month, 19140 in the second month, and the third months 24420 months;

Date	Average monthly total number of	30 people answer the total monthly
	personal answers	
201912	418	12540
202001	638	19140
202002	814	24420

B. The quality of traffic: the problem of poor service attitude has also been improved through random inspection and monitoring, and the enthusiasm of employees to answer the phone has increased. At present, the monthly number of random return calls is 500 return calls. 70% to 92%;

date	Number of spot checks	Satisfaction rate
201912	500	70%
202001	500	79.3%
202002	500	92%

C. Summary work: review the number of new questions summarized daily, the number of question summaries has been increased from 15 to 37 per person per month, and the rate of individual and overall number increase is 2.46 times;

date	Summarized number per person per	30 man-month summary
	month	
201912	15	450
202001	27	810
202002	37	1110

## 2. Ability to work

A. Basic knowledge: Strengthen the ability to evaluate new knowledge. The mastery of new knowledge has been improved from the original question to three and now it is generally good. The overall score of the basic knowledge assessment is increased by 23 points;

date	Average score
201912	68
202001	78.6
202002	91

B. Business skills: Through spot checks and supervisors 'supervision, employees' oral expression skills have been improved. They are willing to read more communication books to improve their communication skills. They can simplify complex issues and communicate with taxpayers.;

#### 3. Work attitude

A. Busy time: stipulate that employees can have a certain time to rest without answering the phone, but the more time they have to rest, the fewer calls they receive, and the busy time through performance evaluation has been shortened by 33%;

date	Average busy time per person per day	30 people are busy every day
201912	60 minutes	1800 minutes
202001	45 minutes	1350 minutes
202002	40 minutes	1200 minutes

B. Rules and regulations: Various rules and regulations of the company and the bureau have also been added to performance considerations, which has improved management efficiency and fewer and fewer problems that violate company discipline;

#### 4. Attendance

The full attendance award can be obtained without asking for leave. The amount is 500 yuan. After the performance assessment is added to this content, the employee's full attendance rate has been increased from 50% to 93.33%;

date	Attendance
201912	15
202001	twenty one
202002	28

## 5. plus and minus sub item

It is helpful to improve the employee's ownership spirit and take the initiative to propose better ideas about the company and work. If the company expresses its opinion that the performance evaluation will be improved by 3 to 5 points, the suggestions received and adopted by the company every month are 2.28 times the original.

date	Suggested number
201912	7
202001	11
202002	16

Through the analysis of company leaders and relevant departments, and the analysis of the above data, it is concluded that performance evaluation is very important and necessary to be implemented in the enterprise.

## **RESULTS AND FINDINGS**

The performance form evaluates the employees by combining the requirements of work tasks, work abilities, work attitudes, attendance and other aspects. By learning from the communication of their three parties, the employees 'work enthusiasm and work efficiency have been obtained after using the performance assessment Great improvement.

#### CONCLUSION

Through performance appraisal to understand the status of personnel use and the degree of personnel cooperation, and find that some people's qualities and abilities have exceeded the requirements of the current job, they can be promoted to their positions; found that the qualities and abilities of others do not meet the requirements of the current job, they should Demotion; if it is found that there are still some people who are not directors, or their qualities and abilities have changed across grades, they can be deployed horizontally.

Performance appraisal is the basis for determining labor compensation. Only by closely correlating the relationship between work performance and organizational rewards can employees feel fair and motivate employees to work hard. Performance appraisal is a means to motivate employees to determine the targets and levels of rewards and punishments based on the results of the performance appraisal. Incentives are advanced, spurs are spurred, and rewards and punishments are clearly distinguished. Performance appraisal is a tool to promote employee growth. Work performance appraisal is like an objective mirror and a fair rule. Feedback the results of the assessment to the employees so that the employees discover their own deficiencies and deficiencies can help them gradually improve through their own efforts. The application scope of performance appraisal is very wide. Applying the results of performance appraisal to specific tasks such as human resource planning, recruitment, selection, compensation, promotion, deployment, and dismissal will help companies make correct human resource management decisions; applied to human resource development, they can provide employees The advantages and disadvantages of information help employees create better performance in existing positions, strengthen targeted training of employees, and provide suggestions for employees' careers and career path design.

Performance evaluation is conducive to forming an efficient working atmosphere, aligning personal goals with organizational goals, and promoting employee development. Performance evaluation plays a very important role in enterprise human resource management. Performance appraisal is the main method for appointing personnel in an enterprise. After appraisal, the personnel's political, psychological, knowledge, and business qualities are evaluated, and on the basis of this, the personnel's abilities and expertise are inferred, and then they are analyzed for their suitability. The position can be matched with people according to the post, and the people can do their best.

Table A:

Agent Work Monthly Assessment Form								
	Appraiser: Direct superior (appraiser): Date of assessment:							
exam topic	Examinatio n content	Explanation	Weights	Poor	general	good	excellent	Score
				0 ~ 0.69	0.69 ~ 0.89	0.90 ~ 0.97	0.98 ~ 1	score
	Number of answers	The total number of taxpayer calls received each month	20					0
work tasks	Traffic quality	Work attitude, service awareness, service language and other specifications, response accuracy, etc.	20					0
	Summary work	Ask questions to taxpayers, summarize study work, summarize work specifications, and summarize the length of time	10					0
Abilit y to work	basic knowledg e	Learning situation, mastery of professional knowledge	15					0
	Business skills	Business application ability, communication skills	15					0
Worki	Busy time	Busy time	10					0
ng attitud e	Rules and regulation s	Implementation of rules and regulations for bureaus and companies	10					0
Total score of the above items		100					0	
Sub- item  A deduction of 0.5 points for each late arrival and early departure within the month, and a deduction of 1 point for each day of absenteeism (less than one day is counted as one day)			Late Arrival: Early Leave: Days Absent:					

	5 points will be deducted for each month of criticism received from the report; 10 points will be deducted due to work misconduct, resulting in loss of property.	Notification: Malfeasance at work:
bonus	Recognized by the tax bureau and taxpayer for each month, 3 points are added each time, and merit awards are added 5 points each time	Praise: Customer Praise:
	Final score	

Remarks: If you fail to meet the standard, you will be transferred or dismissed

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# RESEARCH ON LIVE MODE OF CHINESE CALLIGRAPHY AND PAINTING BASED ON MOBILE NETWORK ENVIRONMENT

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## **ABSTRACT**

In China, WeChat and Tik Tok have become the most well-known online platforms, and the live broadcast of calligraphy and painting rooted in the two major platforms has developed rapidly along with rapid technological innovation. This kind of live broadcast become the main online channel for the spread of calligraphy and painting trading and communication. This article discusses the mobile Internet-based calligraphy and painting live broadcast model, marketing strategy, and future development through relevant data analysis and dialogue interviews, in order to analyze the laws of rapid development of live broadcasting for calligraphy and painting ,and future development trends of calligraphy and painting marketing.

**Keyword:** Mobile Network, Calligraphy and Painting live Broadcast, Marketing Mode.

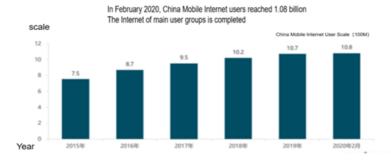
#### **PERFACE**

In the past two decades, with the rapid development of Internet technology, the network speeds up from 2G, 3G, 4G to the current 5G era; the information communicates change from text information to graphic information, short video, then now days short video live broadcast. And these the medias information like text, pictures, videos and live broadcast, are more clearly displayed to us gradually.

Web live casting analyzed in this essay focus on Real-time video signal transmission to the web live broadcasting platform via 4G and 5G internet protocols. The work flow is to acquire signals with individual equipment , such as mobile phone , personal camera or other portable video shooting tools to make and compile video . The live means the author has much more interactive ways with an audience.

According to the "2020 China Internet Development Trend Report", China Mobile Internet users have reached 1.08 billion as of February 2020. At the same time, mobile network traffic tariffs have dropped by 14% from the end of 2019, and the average monthly traffic consumed up to 8.88GB. To be more specific, registered users in China who can pay with mobile increased by 70 million in 2019, the total size of users reaches 950 million. Among these users ,recorded payment amount reached 249.9 trillion yuan, increased 20.1% per year-on-year; As of February 2020, short video monthly active users reached 880 million, and users launched short video apps more than 3.2 billion times a day.

In February 2020, China Mobile Internet users reached 1.08 billion The Internet of main user groups is completed China Mobile Internet User Scale (100M)

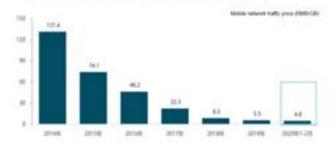


From January to February 2020, the mobile network traffic tariff decreased by 14% over the previous year, with an average of 4.8 years per GB of traffic.

Promote the use of mobile phones in sinking markets to be richer and more fragmented.

From January to February 2020, the mobile network traffic tariff decreased by 14% over the previous year, with an average of 4.8 years per GB of traffic

Promote the use of mobile phones in sinking markets to be nicher and more fragmented



In February 2020, the short video monthly event spent 880 million yuan, a record high

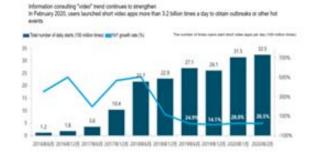
Number of monthly active users of short video (ten thousand)

In February 2020, the short video monthly event spent 880 million yuan, a record high



Information consulting "video" trend continues to strengthen.

In February 2020, users launched short video apps more than 3.2 billion times a day to obtain outbreaks or other hot.



(The above chart is from "2020 China Internet Development Trend Report")

From above data, online live broadcast is no longer restricted by location or scale due of mobile terminals popularization. The live broadcast is an inevitable result of the Internet today.

Chinese calligraphy and painting works act as one of the particular arts product also involved in this live broadcasting for communication and selling. Convenience and benefits of product browsing and interaction, easy payment methods (WeChat and Alipay) embedded by third part contribute to calligraphy and painting sales much.

These plat forms(WeChat and Tik Tok) have advantages of massive audience as potential customers, easy and fast product presenting and showcase ,and safe and quickly payment method. This article believe this is perfect marketing pattern for arts especially for transitional ones. This article analyze the live streaming mode, marketing strategy, and future development of the live broadcast, with researching on relevant data analysis and real dialogue interviews collections, aims to conclude a practical sales way of arts (calligraphy and painting) works, and future trends of art works marketing in mobile networks era.

#### LITERATURE REVIEW

In the past ten years, there have been many experts and scholars studying live broadcasting, covering fields of games, entertainment, music, outdoor, or e-commerce. For games, enter "Game Live" on Chinese CNKI Net, you can find 1258 related literature, 328 of which contain this text in title; enter "Outdoor Live", there are also 318 related literature, 31 in the title.

For communication and sales of calligraphy and painting, there are not as much as popular ones named above. But we can find many good ones too. For example, the China Academy of Art Chen Yifeng's doctoral thesis "Art Network Marketing" started from the history of the Internet and sells, centred on online sales of artworks including calligraphy and painting, music, comedy, movies, and other consumers, products, prices, channels, marketing methods, and sales with detailed analysis. Tang Zhaoyi of Central South University also conducted a comprehensive analysis of Chinese calligraphy and marketing in his doctoral thesis "Operation and Management Research of the Chinese Calligraphy and Painting Market", and focused on the advantages of online marketing. In addition, Li Shuang of Renmin University of China, Feng Zhijun of Chinese Culture Newspaper, Wang Jia of Guangdong Museum of Art and other experts and scholars conducted a theoretical analysis of calligraphy and painting online marketing.

Scholars used to do research on online marketing of calligraphy and painting. This article is doing special research on live marketing, which based on mass communication, from the perspective and method of art works management and economics and give conclusion on Ecology, interpersonal communication in the calligraphy and painting industry and have great value for this kind of arts product marketing.

#### RESEARCH METHOD

#### 3.1 Information Collection Research Method

In order to scientifically choose the influential calligraphy and painting live broadcast accounts, this article uses WeChat auction platform Wei Pai Tang and Tik Tok as the research samples according to the user scale and business ranking and influence in China internet market. Different accounts have the same search and ranking results for the same

content at the same time, and are not affected by various factors such as country, region, personal preference, and so on.

The live account of calligraphy and painting is classified into three kinds, namely the gallery, the company team, and the artist himself according to operator or operation group.

By investigating the 200 live accounts on these two platforms (some accounts are dual platforms), we can see that their marketing models are all similar, especially the Wei Pai Tang live accounts, the model is surprisingly similar. Therefore, this article finally selected the account data of the top 8 of the live broadcast of Wei Pai Tang and the top 5 of each category of Tik Tok for analysis. Their operational data and market results are sufficient to represent the current status of calligraphy and painting live broadcasts.

This article collects statistics on the live content, commodity categories, calligraphy and painting related rates. Combining the principles of statistics, four major indicators are introduced, "live rate", "fan conversion rate", "transaction rate", "participating calligraphy and painting works rate" and its calculation method.

According to the actual situation, live broadcast accounts are generally conducted in units of weeks. If statistics are calculated in units of months or years, there may be slight changes. These three indicators can reflect the mode and positioning of the live broadcast platform from the side, but considering one week is short for the data trends presentation, this article uses monthly as the unit of calculation in order to take into account the stability, comprehensiveness, and analyzability. The data is collected from 2020. From 0:00 on the 15th to 23:59 on the 14th of June 2020.

Conception of indicators:

Live rate: weekly live broadcast duration/weekly live broadcast duration

Fan conversion rate: actual number of purchasers/number of fans

Goods transaction rate: the number of actually traded commodities (species) / the number of commodities presented (species)

Participating calligraphy and painting works rate: the number of participating calligraphy and painting works / the number of products presented (species)

## 3.2 Interview

The audience of calligraphy and painting groups is diverse, which varies according to the actual situation of each person. Investigate galleries, calligraphers, and fans participating in the live broadcast, and explore the acceptance of the live broadcast by different groups. This article conducts telephone and online interviews with the above three types of people involved in the live broadcast process. Each type selects 15 audiences across the country and takes care of differences in gender, age, occupation, and income level as much as possible. Each interview focuses on the following questions .

- 1. How did you enter the calligraphy and painting live broadcast platform?
- 2. Have you participated in calligraphy and painting? How long is it?
- 3. Do you work in painting and calligraphy?
- 4. How much time do you participate in the live broadcast process every week or month?
  - 5. What type of live broadcast do you like? why?
  - 6. Do you generally participate in live broadcast interaction?
  - 7. Have you ever broadcast live? Is it a calligraphy and painting type?
  - 8. What are your feelings and suggestions for live calligraphy and painting?

Although the 45 interviewees lived in various parts of the country, their living environment, educational background, etc. were very different, but according to the content of the questions, they all gave descriptive answers such as "yes, no, more, general, and less". To sum up, use the chart method for feedback presentation.

#### RESULTS

Statistical results of 25 calligraphy and painting live broadcast account data

The relevant data in the above figure combined with the actual situation, the following results can be obtained through research:

- 1. The logos: the galleries have specially designed Logos, such as the logos of Dadao Art and Fujixuan Calligraphy and Painting are very artistic, for comparison, most of the company's team and personal operation accounts use "book" "painting" or surname, personal avatar as the logo.
- 2. The number of fans: Tik Tok owns significantly higher fans number than the number of Wei Pai Tang. Sanli Calligraphy has 1.73 million followers, who is the top accounts owns highest fans number; Dadao Art with the most followers of Wei Pai Tang is only 117k.
- 3. The live broadcast rate of the gallery is much higher. The highest Fujixuan calligraphy and painting reached 0.68, the lowest was 0.45, and the highest live broadcast rate of other categories was only 0.28, and the lowest was only 0.1.
- 4. The conversion rate of fans, the turnover rate of goods, and the rate of participating paintings and calligraphy works: the gallery performance is obviously high than other operation entities. The company's team operation account is in the middle, and the individual operation account is the lowest, and some ratios are 0.
- 5. The establishment of the brand, in addition to LOGO, live broadcast rate, etc., as well as the layout of the live broadcast venue, the quality of the host and other professional factors are related to the brand for marketing.

## **DISCUSS**

## 5.1 Platform professionalism affects marketing effectiveness

The investigation proves that only the galleries with direct sales ability can live in the Wei Pai Tang live broadcast, while in Tik Tok ,all interested teams or individuals can be broadcast, which shapes the concept that everyone is a creative subject. Among the key account individuals under investigation, a number of galleries such as BuErXuan, in addition to doing live broadcasts in the Wei Pai Tang, also have accounts on Tik Tok, but the types of products sold are different.

The results of the study show that although they are all galleries, they have different degrees of concentration in Wei Pai Tang and Tik Tok. Most of the galleries that are registered and operating in WePaiTang do not open accounts in Tik Tok. Even if both BuErxuan Calligraphy and Painting have registered accounts and operated on both platforms, the two platforms are also very different. It can be seen from the survey that most of the works auctioned by BuErxuan Calligraphy and Painting in the Wei Pai Tang cost thousands, but most of the works sold in Tik Tok are more than one hundred. This shows that the audience of the two platforms is still obvious different at this moment ,and which will impact the 4 indicators.

Tik Tok, as a popular short video app nowadays, attracts a large number of activities audience. According to the data of "Tik Tok User Portrait Report 2020" released by Huge Amount of Data, Tik Tok has users exceeded 1 billion, DAU (daily active users) exceeded 400 million, and Weipaidang's users reached 40 million. If you only look at the number of users, the users of Tik Tok far surpass the Wei Pai Tang, but the professionalism of the fans on the two platforms is obviously different.

In terms of the number of fans, Tik Tok's fan group is obviously larger than that of Weipaitang, but the number of online people during the live broadcast of calligraphy and painting is a clear different. Taken BuErxuan Calligraphy and Painting for example ,it only has 60,000 or 70,000 fans in Weipaitang, but during daily broadcasts about 5,000 onlookers have entered and active then. On the contrary, generally less than 100 people have entered the onlookers during the live broadcast on Tik Tok, . This shows that although Tik Tok has many daily active users, but these users are not so enthusiastic about the calligraphy and painting. While the users of Weipaitang are completely particular show interested in calligraphy and painting .

The research results also prove this. The fan conversion rate of Wei Pai Tang is significantly higher than that of Tik Tok fans. This shows that whether regarding the works to to sell, goods to present, even artist personal brand marketing, it is not entirely proportional to the number of fans, and it has a special relationship with the professionalism and loyalty of fans on the particular studied works for Chinese calligraphy and painting. The number of fans in the Wei Pai Tang is small, but the professionalism and loyalty of the fans are high, and the conversion rate is high. Although there are many fans on the Tik Tok platform, it can be seen from the fan conversion rate and the transaction rate of goods, that the professionalism and loyalty of fans are not very high. Most fans on Tik Tok are mainly for entertainment and leisure. How to convert Tik Tok's abundant fans into real consumers requires more efforts from account management.

## 5.2 The importance of brand awareness directly affects marketing effectiveness

There are many factors related to building a brand. The research results show that the higher the live broadcast rate, the better the LOGO image is, the better the quality of the live broadcast host, and with the accurate positioning of the works, the better the marketing effect.

Gallery as the main force to participate in the live sales of calligraphy and painting works, their live broadcast rate is very high, most galleries are broadcasting every day from 2 pm until 12 o'clock in the evening. There are also individual galleries do similar from 9 am to 12 pm Live broadcast without interruption every day. This has greatly increased the network meeting rate of fans and anchors (gallery).

In addition to the high live broadcast rate, the brand awareness of the live broadcast account is also reflected in the LOGO and the marketing quality of the host.

Through the investigation, it is found that the main body of the live account is the gallery, and the LOGO has been specially designed, and the company team or individuals mostly use personal avatars or directly use the words "book" and "paint" as the LOGO. During the live broadcast, the galleries have camera switches, and the scenes are used alternately; while the company and personal accounts are mainly based on local shooting. The results of the study show that camera switching can give participants a better sense of experience and enhance fan loyalty.

The survey proves that the host of the gallery has a strong marketing ability, can grasp the consumer's psychology, and arouse the consumption desire of the onlookers. However, accounts operated by companies or individuals, especially accounts operated by individuals, are mostly showing their ability to do marketing of personal images, and do not directly sell things, nor do they have too strong marketing ideas.

## **5.3** Marketing model analysis

It can be seen from the above product turnover rate and the rate of participating paintings and calligraphy works that there are three main ways of live marketing, one is works marketing; the other is live broadcasting plus goods exhibition; the third is personal image marketing. The following is a brief introduction to the three marketing methods

5.3.1 Works marketing:Live broadcast + sale of calligraphy and painting works

Directly sell calligraphy and painting works through live broadcast. There are two types of this model:

The first direct sales model is generally proceeded by the gallery operator. They will operate on multiple platforms at the same time, such as BuErxuan Painting and Calligraphy and Demai Art directly sold in both Wei Pai Tang and Tik Tok.

The second situation is the gallery + calligraphy and painting mode. The Wei Pai Tang or Tik Tok account registered by the gallery is responsible for the daily operation of the account, including interactions and activities with fans. Then they invites the calligrapher to write or paint on site and sell the works at the end. On-site creation generally involves more works for calligraphy, and there are a small number of works in Chinese painting. This is because calligraphy works are created relatively quickly, especially for few-character works;

On-site sales mainly have two modes, one is that each piece must be priced by given, the content is determined by the purchaser with the number of words relatively fixed; one is that the calligrapher and painter creates on-site and then bids.

## 5.3.2 Live broadcast + goods exhibition

The survey found that many individuals or company teams participating in the live broadcast did not directly sell calligraphy and painting works. They just attract more fans through their understanding of calligraphy, and then sell calligraphy and painting related materials, such as writing brushes, rice paper letterheads, felts, and ink stones, etc. on the live broadcast platform in another words ,they did not sell goods on site, but bring fans to browse their products on their account showing page.they sell a kind of image of 'good products'. Such is the case with the live broadcast account "Feng Cuo speaks calligraphy".

# 5.3.3 Live broadcast + teaching and students enrollment

In addition to the operation of galleries or companies, there are also some personal accounts for live painting and calligraphy. Through the interactive use of video clips and live broadcasts, there are many fans. Then the accounts attract these fans to join in an online teaching platform at a very low price, so as to convert the fans to purchase the goods of learning calligraphy and painting. Compared to traditional classroom ,this virtual classroom has its great advantages on the student size, learning location, and learning time (playback).

## **5.4 Marketing strategy analysis**

## 5.4.1 The auction period and auction time are related to marketing performance

Buying calligraphy and painting art works, as a typical spiritual consumption, also needs to study the consumer's active time. The survey found that the main time for consumption of calligraphy and painting is 20:00-23:00 every day, and the secondary time is 14:00-16:00 in the afternoon every day. Most individuals consumption potential in the morning are at work, and they can enter enter the live broadcast room for viewing or consumption. According to this, important lots are best seen at prime time in the evening, 20:00-23:00, especially around 21:30pm.

In addition to the auction time, there are different settings for the length of each auction. The time left for the buyer to make a bid varies according to the roughness of the work. The aforementioned Dadao Art is not the same as BuErxuan Calligraphy and Painting. According to a survey that continued for a month, the prices of works sold by BuErxuan Calligraphy and Painting are relatively low, so the live auction time of each work is relatively

short, and the bidding time is generally 40 seconds to one minute. If there are more bidders, according to each last bid, it can be delayed by 10 seconds. For the calligraphy and painting works sold by Dadao Art, because most of the creators have good reputation, each work is auctioned generally 3 to 8 minutes, and each bidding time can be extended by 1 to 3 minutes.

The two types of bidding time represent the marketing model of the two price systems. The former has a short interval and fierce bidding, and the sales volume in a unit time is relatively large; the latter has a long interval and the sales volume in a unit time is relatively small, but the latter is larger in total sales amount.

5.4.2 Deep interaction with fans to cultivate fan loyalty

Strong interactivity is the biggest advantage that live broadcast differs from online marketing in the past. Watching through the mobile network gives fans or the public who enter the live broadcast room a closer experience. Anyone can directly express their feelings, and they can also send gifts to hosts. The main operator can also distribute benefits to fans on line or on site from time to time: coupons, lucky viewers, lottery draws, etc. to attract fans and cultivate fan's loyalty.

5.4.3 Carefully create a live broadcast atmosphere to attract more fans

Clean and elegant live venue

In addition to distributing the benefits of painting and calligraphy works and imparting professional knowledge to fans or viewers, the live broadcast can also give fans a sense of leisure, quality of picture and sound, in a word is a pleasant feeling. Especially for Tik Tok users, those who are new to the calligraphy and painting live room may not necessarily want to consume. Many of them just want to relax and spend time on internet surfing. By creating a good video environment, we show an elegant atmosphere and give the users who enter the live broadcast room an impressive enjoyment. For galleries, the atmosphere selection of the venue is particularly strengthened.

5.4.4 Improve the professional quality of the host

The host's mandatory level, in-depth knowledge of calligraphy and painting works, and control of the auction rhythm of calligraphy and painting directly affect the business level of live accounts and the number of fans. Therefore, improving the professional qualities of the host is crucial to marketing performance.

#### **CONCLUSION**

The famous original media theorist McLuhan believes that the media is the basic driving force of social development. The emergence and application of each new media declares that we have entered a new era.

As an innovative model of calligraphy and painting transactions, live sale of calligraphy and painting, with the updating and iteration of technology and in-depth feedback of user experience, the live broadcast model will cover more areas of calligraphy and painting transactions and will become more reasonable and perfect.

Live broadcast is a product of technological innovation. Technological innovation has changed the traditional pattern of the art market, and innovative changes have taken place from capital sources to transaction forms. With the iterative replacement of technology, the transformation of the traditional offline transaction mode or network graphic transaction mode is imperative. People's thinking patterns will change with the changes in the cognitive field, and their lifestyles will also change. With the innovation of science and technology, towards a better tomorrow.

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# CHINA'S LOCAL GOVERNMENT FINANCIAL AND DEBT PROBLEMS

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## **ABSTRACT**

At present, the structure of local fiscal expenditure in China continues to undergo positive changes, and the trend of public fiscal expenditure is more and more obvious. On the one hand, the scope of fiscal expenditure is too wide, and local governments undertake too many tasks. On the other hand, it is difficult to increase the input of fiscal expenditure comprehensively and effectively. In addition, the fund management also lacks the clear responsibility system and the standard and the corresponding supervision measure, the fiscal expenditure still exists the budget softening, the management weakening, the expenditure is not standard and so on. In addition, the debt also presents the increasing trend, the local payment burden is becoming more and more serious.

#### INTRODUCTION

Since 2018, China has introduced a series of systems and laws to regulate the management of local government debt, implemented limit management of local government debt, and actively formulated plans for the estimation of local government debt. gradually curb the momentum of the rapid expansion of local government debt. However, with the development of the general environment of the Chinese market and the increase of unstable and uncertain factors in the external environment, as well as industrial transformation and upgrading in recent years, the capital expenditure of local governments has increased and the funding gap has been widened. it has brought a more severe test to the local governments at all levels.

1.1. The scale of debt is large and the solvency is poor. Local government debt is highly dependent on land transfer income. To some extent, the land finance has kidnapped the local finance and caused the housing market bubble to grow bigger and bigger. In addition to the way of selling land, because some localities and industries have a heavy burden of repaying debts, repaying old debts with new debts has also become one of the main ways of repaying debts in some places. As a representative of China's "debt city", starting in 2017, some district governments need to borrow money from large enterprises in order to pay civil servants. Some enterprises even said that in order to avoid borrowing money from the local government, they planned to move their headquarters to other places.

And from the perspective of local government debt structure, liabilities such as BT, unpaid and advance construction are also important sources of capital for infrastructure investment. By 2018, the scale of local government debt is 45.5 trillion yuan. Among them, the local government debt within the budget is 16 trillion yuan, and the extra-budgetary local government debt is 29.5 trillion yuan. In terms of the rate of debt expansion, the growth rate of local government debt has slowed since 2017, from nearly 30 per cent to about 20 per cent. Since 2018, with the strengthening of debt control, the growth rate of local government debt

has begun to slow down, and the year-on-year growth rate has slowed to less than 10% in the first half of 2018.

1.2 The debt balance is lower than the government limit, and the local government debt is growing rapidly. In the following years, with the rapid development of real estate in China, most of the local government debt was invested in infrastructure construction. According to the National Bureau of Statistics, the balance of local government debt in 2018 was 18.386152 trillion yuan, an increase of 1.876268 trillion yuan from the end of 2017 and an increase of 11.4 percent over the same period last year. In 2018, China's local government debt limit was 20.99743 trillion yuan, and the local government debt balance was 2.611278 trillion yuan lower than the local government debt limit.

1.3 There are still some defects in local government debt management. As the financing platform of the main body of local government borrowing, there is a lack of scientific and reasonable planning and strict feasibility demonstration of debt-raising projects, less consideration of debt-paying ability and financial affordability, and lack of unified and strict debt examination and approval procedures. there are a large number of non-standard management phenomena. As there are more and more financing platforms in various places, and the types are diversified and hidden, for supervision, it is difficult to grasp the source and scale of many funds. It is precisely because this part of the money hidden behind the fog has added to concerns about the risk of local debt.

In addition, some local governments and units have skillfully chosen names for the sake of some face-saving projects, in order to demonstrate their political achievements, to borrow loans illegally, and to illegally use government debt funds, and the state explicitly forbids the guarantee behavior of the government, but there are also some local governments that ignore the law and commit crimes against the wind. According to the investigation of the Audit Office, some places illegally borrow 245.795 billion yuan of government debt through BT, borrowing from non-financial institutions and individuals. Local governments and their subordinate organs and institutions provided 335.915 billion yuan of guarantees in violation of regulations, and financing platform companies and other units issued 42.354 billion yuan of bonds in violation of regulations.

1.4 The scale of special debt is increasing, and urban investment debt is also expanding. The newly increased amount of local debt has been significantly increased in recent years, and its role in infrastructure investment has become more obvious. Special local bonds were added by 800 billion yuan in 2017 and expanded to 1.35 trillion yuan in 2018. And the scale of urban investment debt has not shrunk. The bull market in bonds in 2016 led to a significant increase in the issuance of urban investment bonds, with a net financing of 1.34 trillion yuan in that year. However, with the adjustment of the bond market since the end of 2016, the bond market has entered a bear market, and the scale of urban investment bond issuance has shrunk. The net financing size of urban investment bonds in 2017 was 450 billion yuan, which remained depressed in the first half of 2018, with a net financing amount of 200 billion yuan.

## LITERATURE REVIEW

## 2.1 Fiscal spending faces challenges

The scale of public expenditure controlled by the government is huge, and a large amount of expenditure undertaken by the government is outside the budget, which seriously affects the transparency, reliability, controllability and overall effectiveness of public expenditure. The degree of decentralization of expenditure responsibility and source of funds is not equal, resulting in between regions, between urban and rural areas. There is a huge

difference in per capita public expenditure and in the process of local government implementing public expenditure policies. You get the reverse excitation. These problems also limit the government in important social areas such as education and health care Domain inputs.

While the Chinese government is working hard and effectively to address some of these issues, more challenges lie ahead. Like most countries, China's government accounts exclude contingent liabilities and tax expenditures. In China, contingent liabilities mainly come from government guarantees on bank loans. Bad loans that Banks cannot handle on their own, and that cannot be made up through asset sales, will ultimately have to be taken on by the government

Increase the government's interest payments. There is also considerable scope for tax expenditures, such as tax breaks and other tax breaks for foreign companies operating in China. In contrast, only a relatively small portion of public spending in China is devoted to meeting people's basic welfare and development needs, such as education, health care, scientific research and social security. The share of China's total public spending on education, health care and scientific research has fallen over the past decade.

# 2.2 Opportunities for fiscal reform

A thorough reform of fiscal relations between governments at all levels is essential to solving the current problems in public spending in China Is very necessary. The first thing to deal with is that local governments must make their sources of revenue compatible with theirs actual expenditures need to be consistent. Either by increasing the share of tax revenue collected by local governments or by shifting more responsibility for public spending to them. The central government, it seems, is not helping. Because of people between provinces and regions of the province. Per capita income varies widely, and local governments, which enjoy a higher share of the tax take, will actually only gain Step by step, we will widen the gap in fiscal revenue. If local conditions are not taken into account, the central government undertakes Greater responsibility for public spending will only make it more inefficient. Therefore, it is necessary to reform the inter-governmental transfer payment system. The present must be improved transfer payment formula to better meet the actual financial needs of the region. Central government demand the additional public spending that local governments must undertake should be clearly stated in budget statements, This should be supplemented by transfer payments or additional sources of income.

Other measures to ensure that local governments use their financial resources more efficiently are also needed. At least some provinces, for example, have embarked on reforms to raise revenue directly beyond the regional level Distribution to county-level governments. In how to share financial resources with lower level governments to meet actual needs local governments need clear guidance. Local governments also need to take full accountability. Therefore, the establishment of the evaluation of the effectiveness of public expenditure policy standards and indicators system for inter-provincial comparisons with provincial governments at all levels will be very helpful.

#### THEORETICAL FRAMEWORK

# 3.1 Research approach:

To test the proposed conceptual model ,a qualitative research method is adopted in this study.

# 3.2 Unit of analysis:

This time I chose China's overall local debt, not a single province. As for China's fiscal position, the central government's fiscal position is relatively sound, while local governments' fiscal position is threatened by growing risks, mainly the expansion of debts and bad loans. This is clear from the results of the audit by the National Audit Office of the People's Republic of China. However, if fiscal problems arise in some regions and the impact spills over into other parts of the country, or if the impact stalls reform and delays resolution of problems, a serious crisis will occur sooner or later. Therefore, this study aims to propose some solutions to the problem of taxation and debt of local governments in the current situation of the epidemic.

## 3.3 File analysis

To collect the data ,a file analysis method we used. Through the network inquiry nearly five years local debt, as well as the situation of bond issuance. Mainly concentrated in the national ministry of finance, audit office. Check existing written documents, mainly government announcements. To ensure the accuracy of the data.

# 3.4 Sample

Try to take the data from 2015 to 2019 as the sample interval. An investigation of the finances of local governments across the country published by the National Audit Office (NAO) in December 2018 estimated their total debts had surged to 17.9 trillion yuan (\$2.66 trillion) by June that year from 10.7 trillion yuan at the end of 2016.

Most of that debt wasn't officially on the books of the local authorities themselves, but was hidden in LGFVs, companies set up specifically to borrow the money needed to fund trillions of yuan of spending on infrastructure and other public welfare projects. LGFVs have played a key role in raising money to fund and build government-backed projects since 2016 when the central government pushed local authorities to ramp up investment to cushion the economy from the global financial crisis and boost growth. If those vehicles failed to repay their borrowings, local governments were on the hook for the money.

#### 3.5 Research settings:

The research setting was non-contrived, online study approach was used, in a online, data was collected.

# 3.6 Data analysis

To analyze the document Nvivo software is used in this study, data were transcribed into a word document and imported in Nvivo software, the word query test is used to find the similarities among document thoughts.

# **RESULTS AND FINDINGS**

#### 4.1 Local-government debt

4.1.1 Projects invested by explicit local debts and hidden local debts urgently need the "receiver". Since the financial crisis in 2008, the leverage of household residents in China has been increased to nearly 50%, which is equivalent to receiving about 40 trillion types of assets, most of which are real estate. If another 40 trillion assets are to be taken over, residential leverage may need to be increased to more than 70%. When the Japanese bubble burst in the 1990s, residents 'leverage increased to this level, followed by a 20-year loss; if

time permits, local governments will most likely choose to pass on this debt to residents, the difference is that they can succeed. How much to transfer. However, after the Xiangyu incident, I believe that decision-makers will carefully consider the use of this option.

# 4.1.2 Challenges in the relationship between central and local finance

There is not much time window left for the government to deal with local debt, and it is difficult to fully transfer the debt risk. Under the premise that real estate prices are peaking, local governments have missed three golden time windows for destocking since 15 years. The external economic situation in the past two years has not supported further rapid rises in house prices, which has increased the difficulty of degovernment inventories. After the project is completed, how to realize the future will become a realistic problem;

The government is unable to take all of this 24 trillion invisible debt, and this is only local debt. Let the bank pick it up, then the bank's balance sheet is about to collapse. After a few years, the local government will not pay back the money and directly dump all types of collateral to the bank. Some banks may go bankrupt; China 's spending power is going to die for more than half; if the country picks it up, if the country picks up too much, the country will only be able to quantify easing and domestic inflation may occur; let the local government pick it up and use the local fiscal revenue to return it slowly. The money has been used to pay off the debt, and the country's economic growth may have to brake sharply. However, the problem must always be solved, but the rights and interests of the interest groups will be impaired when solving the problem.

# 4.1.3 Trends and challenges in tax reform

Due to limited funding sources, it is difficult for the government to comprehensively resolve the local debt problem. Explicit local debts are resolved through the issuance of government bonds or local bonds. At the end of 17 years, the government issued 13.48 trillion national bonds, mostly domestic debt. The government can settle local government's explicit debt of 16.47 trillion through perpetual debt, but the 24 trillion hidden debt after the local government's endorsement of credit is currently unsolved and growing, calculated at 12% annual interest, with only interest per year The cost is as high as 2.88 trillion.

China's debt problem is as unsolved as many countries in the world, but it should be much better than the United States. Without the determination of the brave to break his wrists as in 1998, it is difficult to solve the existing problems. Because we all know that China's problems are not only local debts, but also large and small corporate debt problems, export problems, housing problems, and so on. Comparing from various issues, I have said many times that debt is the biggest problem facing our economy, especially local debt, because the housing price and exchange rate problem can be temporarily resolved through administrative means to lock up liquidity. The capital market national team Limited investment, high investment, low investment, and the attraction of international capital can help maintain stability, but the debt problem, especially local debt, needs to be addressed in a limited time to solve the problem of tens of trillions of capital gaps, so I always think that the debt problem is the Chinese economy The real seven inches are now.

The government is unable to take all of this 24 trillion invisible debt, and this is only local debt. Let the bank pick it up, then the bank's balance sheet is about to collapse. After a few years, the local government will not pay back the money and directly dump all types of collateral to the bank. Some banks may go bankrupt; China 's spending power is going to die for more than half; if the country picks it up, if the country picks up too much, the country will only be able to quantify easing and domestic inflation may occur; let the local government pick it up and use the local fiscal revenue to return it slowly. The money has been used to pay off the debt, and the country's economic growth may have to brake sharply. However, the problem must always be solved, but the rights and interests of the interest groups will be impaired when solving the problem.

#### **CONCLUSION**

To alleviate the local debt problem, the following measures may or have been taken:

# 5.1 For uncompleted projects, financing for continued construction

So many hidden debts are mainly risk-sharing. The state appropriations receive a part, the local government issues local debt, the local government installs part of the financial payment, the bank subscribes and renews a part, and the individual investor manages financial investment to ensure that the project is completed; this should be possible. These measures, including the issuance of local bonds by bank windows and lowering purchase thresholds, are examples of such measures;

# 5.2 For completed projects, realize the realization of leverage transfer

In addition to non-profit projects and public infrastructure projects, it is still necessary to realise them and pass them on to consumers. Otherwise, the debts of the final borrower cannot be paid off, such as houses built after the shed reform. The problem with this is that the leverage of residents will continue to rise and further crack down on consumption potential. The second is that it will take several years for tens of trillions of assets to be passed on. By then, the economic environment may lead to the inability to realize the smooth realization of inventories, and the debt problem may again focus on outbreaks.

# 5.3 Appropriate debt restructuring and write-down

Debt restructuring and write-downs have been implemented for some projects, but debt write-downs mean that some investors' assets will disappear on the asset-liability side. So write-downs will definitely control the scale, otherwise the national economy will fall into severe deflation in extreme cases.

#### 5.4 Explicit debt

Hidden debt is gradually becoming explicit, and the existing hidden debt is replaced by local bonds with longer issuance cycles and lower interest rates. However, the difficulty in realizing this is that the scale is too large, and the funds required for the tens of trillions of local debt markets are basically impossible to meet in China.

#### 5.5 Local debt

As mentioned above, it is difficult for domestic market funds to meet the huge demand for local debt issuance. Therefore, the problem of local debt must be completely solved. In addition to attracting market capital, large-scale purchases of local debt by national bonds are also inevitable, which is the Chinese version of "QE" It can be expected that in order to solve the problem of local debt, the bond market issued by local governments will have a wave of long bulls in the future, attracting global capital inflows, and the bond debt of local debt is the lead of this wavelength bull;

#### **5.6 Debt monetization**

Countries around the world are facing serious debt problems, and their choices have remained basically unchanged for hundreds of years, that is, debt monetization. At present, the United States, Japan, and Europe are all using quantitative easing to monetize debt. This is an extreme method of debt monetization. The premise of large-scale independent implementation is that the domestic currency will be effective as an international currency, otherwise it will lead to domestic hyperinflation. The internationalization of the renminbi is still in its infancy, so it does not have the conditions to independently implement extreme debt monetization. It can only wait for the current bubble to clear a new round of easing following the dollar.

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# APPLICATION OF DESIGAN MANAGEMENT IN PRODUCT INNOVATION

### **QI GUO**

# **ABSTRACT**

With the increasingly fierce competition in the design market, design management is paid more and more attention by people. As a new subject, design management has many problems.

This study aims to arouse the attention of enterprise managers to design management by describing the importance of the application of design management. Quantitative research is adopted in this paper, and respondents should rate enterprise management on a scale of 1 to 7. SPSS statistical software was used for data analysis, and the preliminary data set analysis was based on the construction equation. Most people think that design management obviously plays an important role in a company or product innovation. Finally, some reasonable Suggestions are put forward. This paper argues that design management can make product design more standardized and plays an important role in the application of product design.

**Keywords:** Design management, Product design, Product innovation, New field, Management development.

# **INTRODUCTION**

# 1.1 Background:

Timothy Bachman, President of Bachman Miller, once said, "design management can effectively harness change, seize opportunities to grow, and maintain the image of the product and the company that creates the popular image." This means that Good design and management are important factors that affect the enterprise As design gets more and more attention around the world, design firms develop thousands of new products each year to meet increasingly diverse, personalized and changing customer needs. The original design management was narrow and focused on how to design.

Until 1976, there was a design management presence in areas other than product design. Most previous corporate managers ignored the development and innovation of design management and its important role in product design, focusing only on the business and strategic development of the company. (YiRu Zhang, 2016)

This paper introduces the application of design management in product innovation. This paper will discuss the important theoretical knowledge of design management and summarize and analyze the importance of the standardization implementation of design management in product innovation

Design is an indispensable resource in today's society, and design management design innovation is indispensable.

# 1.2 Definition of design management:

Design management is a new subject in the field of industrial design. Despite the growing attention from abroad, it has achieved only preliminary results. Research has also begun in recent years. China's research into this is just beginning Design management is: "to

design and organize research and development management activities according to the needs of users. To influence and change people's lives in a new, more rational and scientific way, and to manage a range of policies and programs aimed at maximizing business benefits. (Bo Tang,2003) Keep the design in order.

# 1.3 Importance of design management:

Chrysler, one of the three pillars of the American car industry, went east to Western Europe and gobbled up small car companies in an effort to expand its strength and influence. Make the design image is not unified, the design effect is not ideal, some cars are hanging their original logo, some have their own logo, and Chrysler logo, people feel very confused. As a result, consumers also lost confidence in the overall strength of the company and Chrysler's expansion plans. The reason is that it does not establish a unified design management system. (WenKe Kang, 2001)

Product innovation process is an innovative, complex and dynamic process. Therefore, in the development of new products, design innovation is indispensable. However, the self-indulgence of designers and their focus on the innovation of products will bring many problems to the subsequent development. Therefore, it must also have a design management process, the process of product innovation is to complete the process of designers to transform new projects from solutions to final products, which is contradictory and contradictory in the extensive development process. Solving these problems through the standardization of standards is the main task of design management, shaping the scientific, regulatory, regulatory and efficient innovation process of products. Design management will improve the business value of new products and the future prospects of the core, support the business value of the activities, Therefore, design management can be the main influence of new product innovation. If a company wants to gain profits in product design, it is essential to develop design management

Although enterprise managers sometimes evaluate design projects, most evaluations are done after the project is completed. This process only evaluates the design, not the role it actually plays. If a designer can't see what's wrong with the whole thing before it's done, it ruins the design. The goal of design management is to maintain as many standards as possible in the planning process to avoid these errors

The guarantee for the success of a design company is the successful development of new products, and the failure of the opposite products will lead to the failure of the whole design company, bringing huge economic losses Therefore, design management must be paid attention to by the company's product innovation.

Product design innovation is closely related to design management, which must be based on innovative design, development process research and redesign. It also depends on the importance of design management in product design

# **1.4 Problem Statement**

1. The design management department does not get the corresponding attention from the product design company: in many enterprises, the product design management does not get enough attention in the innovation design, so that it does not recognize the important role of the design management in the whole project, and focuses on other things that can bring direct benefits to the enterprise. But if a design process lacks scientific, effective project management procedures not only fails to effectively improve the management efficiency, but also may cause confusion in the product design process, thus affecting the effective deployment of innovative product development projects. The quality of design management will indirectly affect the publicity of corporate image. (YaoQing Wang, 2016)

- 2. Lack of perfect management operation mechanism: in our current product design, especially in design management. Negative attitude, lack of scientific and effective functional mechanism, so the design quality is bound to be damaged. No matter in which aspect of management, a good operation mechanism can bring us great benefits. Having a standard management mechanism can save us time and unnecessary aspects of the design process. However, the design management is still in the initial stage, and there is a lack of a set of perfect operation mechanism.
- 3. Design management strategy did not keep up with the pace of The Times: many of the existing design company has done well in the early stages, but as time goes on, especially in the era of "smart grid", many design enterprises in the aspect of management strategy made a big mistake or delay, or design department strategy is not perfect. For example, nokiya, the former brother of the mobile phone industry, was eliminated by the era precisely because the smart network did not develop a strategy suitable for the technology and era in the era of rapid development.

#### 1.5 Research Problems

In view of this situation, this paper choose the positive importance of design management in a company's product innovation and development process. How to make product innovation and organizational management show the best performance in the application of design management? and make the new product design impressive .How to effectively support product innovation, unify the image of the company, and enable designers to concentrate on the design. Make its products in the process of creation more smoothly, create a better product for the company to seek more benefits. And how to strengthen the company leaders' weak awareness of design management, Learn more about examples of successful and scientific design improvement and the importance of product development planning management. How can inadequate oversight of design management be corrected, often for subjective reasons, which often affect product innovation. This important way of design management is often ignored by the existing common design firms.

Design management is a systematic control of the whole design process, and the scope of modern design management includes not only the control and execution of the design process. Therefore, the standardized design management system helps us to quickly understand and integrate into the design management. (Jiao Zhang, 2019)

# **OBJECTIVES**

This study aims to win the attention of enterprise managers on design management through the definition of design management and the importance of successful design innovation in the process of rapid innovation and innovation. For example, in the research and development process, enterprises pay more attention to design and management, improve the company's image and improve the company's efficiency. Through the integration of a series of related investigations, it is concluded that better application design management is feasible and necessary in the process of product innovation. Relevant research methods are used to sort out the collected literature and find practical application cases, so as to make the research report more scientific, accurate and practical. In planning management, whether the design is successful, whether the goal is achieved, whether the enterprise is effective is the key. It is therefore crucial to make the right decisions in programme management activities.

# 2.1 Significance of Research

- 1. by promoting technological breakthroughs and cooperation in different fields, unpap can make full use of resources in all fields, thus accelerating the rapid conversion of technologies into commodities.
- 2. timely access to market information is beneficial, giving business leaders an opportunity to recognize the importance of design management.
- 3. it is conducive to the correct use of resources, reduce the consumption of human and material resources, and improve the competitiveness of the company's products.
- 4. by creating a healthy working environment, it is conducive to good business relationship adjustment.
- 5. support the creation of a well-designed and stable design management team aimed at eliminating abuses associated with spillovers.
- 6. it is beneficial to establish a clear, new and united corporate image.

#### LITERATURE REVEW

# ${\bf 3.1}$ Design management faces challenges in new product innovation, r&d and application

Management design in different development stages is a management method based on the innovation development process. The ability to combine design management with designer legislation determines the continuous innovation of product design. Many of these factors influence the management design. Previous attempts have been made to translate creative design into standardized linear thinking in order to understand the innovative management of product design. (Varnes, 2017)

Show how project participants will establish more stable management and enable more non-human involvement to ensure product innovation. But that didn't happen. For example, Darrell Mann and his team applied TRIZ innovation method to the field of design and management, and carried out pioneering research, aiming to solve the basic contradictions and problems in the field of management with new product innovation. (Retseptor G, 2017), but it did not go smoothly, so the research and development difficulties and challenges faced by design management in new product innovation applications also deserve our attention.

We have professional, Shared meaning. In the process of product innovation, objective design is unprofessional, inadequate project management and unclear division of labor, which reduces the efficiency and cost of project management. It is not only the increase in economic expenditure that will lead to human resource management problems. (Yuan Yu, 2018)

Design management process is not clear, there are many businesses is not clear target tasks, work lack of planning and dynamic design management operation is not enough, but only the design management system has been clear about the goal task, by contrast to the actual work progress, observe and adjust the management method, can be controlled, develop a set of perfect management system and flexible.

Management design, implementation of design and implementation of design management functions also lack an effective incentive and punishment mechanism, but how to effectively execute design management tasks and create high-quality new management products must be related to encouragement.

# 3.2 Application opportunities of design management in product innovation

The growth of knowledge economy, the globalization of competition and the diversification of demand have increased the importance of market competition, product diversification and product innovation. In this historical context, the application of design management application development is also widely used. (Jing Lu, 2019) from the perspective of the process of innovation and the overall perspective of management, innovative design management needs the combination of two ways -- namely, the combination of design management and the application of innovative methods -- the current goal is to double harvest of product design creativity and profitability. t the same time, according to schumpeter's innovation theory, the benefit of product development lies in its internal demand for innovation, and design management can play a role in promoting product innovation. (Earl N, 2013) including: management process, management scope, management of resource allocation, management of user demand and design management to encourage designers.

The rise and fall of enterprises is the standard of market economy. One of the famous apple companies in the United States is a typical company, which attaches great importance to management design. A large number of human and material resources are used to maintain design management every year. Apple has a strong technical force in the release, it is known that such intensive product innovation is inseparable from apple's efficient design management in the product development process. (Xin Cui, 2019) at the same time, each designer in the team shows his level, so that the organizational structure can achieve the best results between the two, making full use of the different advantages of each designer, and finally making the design have the opportunity to realize its value. Design management is a powerful booster applied in product innovation, but also a reassuring guarantee.

After a long-term systematic summary, design management was decomposed and transformed into a conceptual model of unified management, which has some general guiding significance. According to the analysis, design management can play an important role in the product innovation process, promoting marketing, functional organizational structure and planning for the future. (Robert G Cooper, 2013)

# 3.3 Application prospect of design management in new product innovation and development

Design management plays an important role in the development of Chinese design industry, which not only plays an important role in improving the overall level of design industry, but also in practice, the development path of design industry is more and more extensive. (Robert G Cooper, 2013)

Design management makes product innovation more humanized, more humanized, and changes the relationship between design organizations, making them a part of each other. In order for Chinese enterprises to survive and develop in the long term, they must make full use of management design and network technology to create a clear image of the enterprises and effectively improve business effects.

A unique corporate image designed to win the trust of supporters and the community. Must rely on the development of design innovation to enable the enterprise to realize the design management project, improve the competitiveness of the enterprise; To provide faster and more accurate reasons for the decision of enterprise managers; To expand the collection and feedback of enterprises and markets; Improve design and productivity, avoid wasting resources, and save company capital

#### **METHODOLOGY**

#### **4.1 Research Methods:**

To verify the proposed conceptual model, this study adopts the method of quantitative research

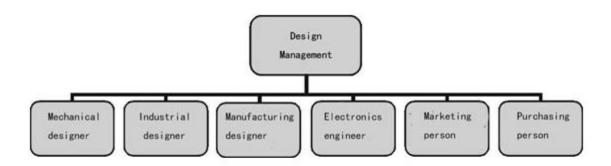
# 4.2 Case Study:

The research objects are designers, marketers and manufacturers of design companies. Verify the relationship between design management and product design for different departments.

Designer. The designer's function is to determine the form of the product that best suits the customer's needs. Design consists of engineering design (machine, electronics, software, etc.) and industrial design (aesthetics, human and machine environment design, interface design, etc.).

Marketers. Marketers are communicators and communicators between businesses and consumers. They can help companies identify product capabilities, identify market segments, assess customer needs, and play an important role in shaping product prices, testing new products, and testing. In today's small businesses, marketers often decide to develop new products.

Production workers. The manufacturer is primarily responsible for the development and management of production systems.



The purpose of this research is to understand whether management design has significant value in applied product innovation.

#### 4.3 Instruments and data collection:

To collect the data, a questionnaire was used, which was distributed among people in different parts of the company. The study was based on self-evaluation. The busi-ness performance scale using Venkatraman(1989) is a reliable and effective reporting metric. Specifically, respondents should rate business management on a scale of 1 to 7, 1 to 7, 1 is bad, and 7 is good. A questionnaire is attached to the research report (see table 1).

Table 1 The Questionnaire Survey	
Name: Department:	
1. The importance of the design management department in the company	1-2-3-4-5-6-7
	1-2-3-4-3-0-7
2. Your understanding of the daily process of design management	1-2-3-4-5-6-7
3. How much do you think design management should play in the event of project problem	1-2-3-4-5-6-7
How much do you know about design management     How harmonious you think design management is with other relationship	1-2-3-4-5-6-7
6. Your understanding of product design project standards	1-2-3-4-5-6-7
7. How much do you think design management affects the process of product innovation	1-2-3-4-5-6-7
8. How important do you think the product innovation department is	1-2-3-4-5-6-7
	1-2-3-4-5-6-7
How often your department cooperates with design management	1-2-3-4-5-6-7

# 4.4 Population and sampling:

The population of this study is mainly designers, and the improbability sampling technique adopts the method of intentional sampling. The reason for deliberate sampling is simply to demonstrate that the application of design management in the product innovation process is important. A total of 50 paper questionnaires were issued and 45 questionnaires were returned.

The study was conducted without human intervention, using field research methods to collect data in a natural environment.

## 4.5 Analysis:

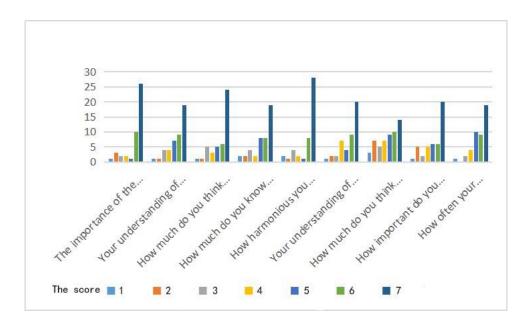
SPSS statistical software was used for data analysis, and the preliminary data set analysis was based on the construction equation. Structural equation models have been developed in many disciplines to validate theories (Hair et al, 1998). SPSS software was used to modify the hypothesis model of this study. Since the purpose of product development and the development strategy of the enterprise are different, different elements have different proportions in the development of new products. Even within the same enterprise, the development elements will be different for different new product projects, so it is necessary to have design management to analyze and sort out these different elements. Therefore, in order to fully understand the role and importance of design management, the purpose of this study is to identify the opinions on design management from three different departments related to the product design department.

# DATA ANALYSIS, RESULTS AND FINDINGS

As mentioned above, in order to analyze the importance of design management in the application of product innovation design, determine the importance of more design management:

Table 2. Results of questionnaire survey of 45 people





Data analysis begins with the use of descriptive statistics. Flynn et al. (1990) argue that descriptive statistics make data easier to understand and more suitable for describing industry practices. Table 2 shows the responses of 45 respondents to the design and management of the questionnaire. Table 3 shows the survey results in a more visual form.

From the two tables, Most people think that design management clearly plays an important role in company or product innovation. The percentage of 7 in the table is very large, which means that both professional designers and non-professional marketers believe that design management plays a very important role in the process of product innovation. Design management can ensure product quality and improve the design efficiency of new products, which has many benefits. In a product innovation design process is a very large design system, which is not only the efforts of the designer, he needs to have a standard management system in the process, so that the process can go smoothly.

In addition, design management discovered from the data provides detailed insights. We found that some people still think that design management is not important. That's why there are so many other scores. This is the first question that we as researchers have to address.

There is a lot to learn: design management has a powerful, positive, and important impact on product innovation. The impact of innovative design applied to design management is meaningful. Therefore, special attention must be paid to design management skills, which are key to implementing product innovation. And this is complementary, mutual promotion of the role, who are inseparable from each other. With the design management of product design can be more efficient, design a more perfect product. (Claudio Dell 'era and Roberto Verganti, 2007)

It also shows that design management is dependent on creativity, and this study did not consider other factors affecting design management ability.

#### **Effectiveness:**

The test factor analysis method (CFA) measures the strength of the scale. CFA assumes that the previous factor structure is known. The factor structure designed for management is based on Dixon(1995) and factor analysis (EFA) and CFA, which are different techniques with complementary applications.. The primary goal of design management is to regulate product innovation. (Kevin Baird \*, Kristal Jia Hu, Robert Reeve,2018)Create better products the identification factor analysis was also used to determine the effectiveness of the polymer to confirm that all measurements had a significant impact on its composition (Anderson and gabin, 1988). In addition, aggregation efficiency is important. Compare a coupling factor model that sets the correlation to zero (which indicates that there is no correlation between the two elements) with a model that sets the correlation to zero. All the differences in w2 were significant, which demonstrated the effectiveness of the polymer (Gatign non et al.).

#### **CONCLUSION**

# **6.1 Discuss**

More and more possibilities, design will provide a basis for competitive advantage for companies. Gemser and Leenders (2001) point out that design management has a great influence on product design. Only when the management has done enough work can the design process run smoothly in the design company. but if there is no empirical research to prove this, the company will not pay enough attention to the design of new products. This paper further discusses the relationship between design management and product innovation. The results provide a basis for the establishment and hypothesis of the model. (Yufei Zhao,2012)Research results are critical to the management of design

In the global competition, enterprises must live and develop on the basis of developing new products, which must be successful in the market, thanks to the good management system of many enterprises in the new century. (Helen Perks, Rachel Cooper, and Cassie Jones, 2005)

Enterprise design management can start from the following aspects:

- 1. Management appreciates and participates. Strengthening the project management consciousness must start from the company leadership management.
- 2. Develop the right design philosophy. Designers in the company's management and design departments must create "design managers" to guide design ideas.
- 3. Gradually introduce design management. Enterprise design management is a very practical process in our enterprise design management

- 4. Implement integrated design management strategy. The company must develop a strategy of integrated management. It can be designed, manufactured and marketed in a seamless way.
  - 5. It is an inevitable trend to link product design with design management

# **6.2 Impact on management:**

This job is a revelation to practitioners. Although managers recognize the importance of design management, design management is often a factor neglected in design success. Design management skills are critical to effectively executing this process. (Kevin Baird \*, Kristal Jia Hu, Robert Reeve,2018), further explained why management design is related to cases and has a positive impact on product innovation.

# **6.3 Limitations and Future research**

The results should be considered in light of the limitations of the study. Like all cross-sectional studies, the relationships tested in this study are snapshots in time. While the conditions for data collection may remain unchanged, there is no guarantee that they will. (Kevin Baird \*, Kristal Jia Hu, Robert Reeve, 2018)

In addition, design management can further influence the innovation of a company's products, but since we did not conduct longitudinal studies, we were unable to assess their impact. Future longitudinal research can make long-term evaluation of design management management and product innovation from two aspects. A unilateral assessment is a unilateral and short-term assessment.

This is a single, self-reported approach, and as design management increases, this in turn limits innovation as companies focus on acquiring higher skills and design efficiency. (Roberto Verganti, 2011)

One of the reasons some companies see design innovation as a comparative advantage is that most companies want a comparative advantage in product innovation. It is believed that the degree of novelty of the product is the degree of attracting customers' attention. However, standardization of design management will inevitably restrict product innovation. However, in future studies, objective data or other dimensions will be used to measure deformation. To support better integration of design management into product innovation. However, in future research, using objective data or other dimensions to measure design innovation may encounter some limitations. Let design management and product innovation find a balance, so that they can coordinate with each other, promote the product wants to improve development.

Since management design is not the only reason for product development innovation skills, future research can be analyzed using organizational and cultural factors to enable the development of these skills. Therefore, future research will be able to analyze the impact and importance of organizational training on innovative product skills

# **6.4 Conclusion**

"Good design means good business," said Thomas Watson jr., general manager of IBM, who famously said that the key to the success of a design business is enterprise quality. (WenKe Kang, 2001) but the more important skill is not just a popular product designed by a designer. There are also development team and management requirements for the entire program. Good design management effectively plans and manages the development process and USES design as a management tool and resource for the enterprise. in business, good design requires good management. Good product design, visual presentation and environmental design are not the only results of good design management, and the search for standard management is more important than the design itself. (Wang Jing and Wang Xiufeng, 2019)

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# ENHANCING TECHNOLOGICAL INNOVATION CAPABILITIES: THE ROLE OF HUMAN CAPITAL IN CHINESE SPORTS MANUFACTURING COMPANIES

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#### **ABSTRACT**

**Background** The turmoil in the global financial market, China and America economic and trade frictions, and the transformation and upgrading of China's manufacturing industry has made Chinese sports manufacturing companies face many challenges. Whether they can continue to expand and develop is a problem faced by Chinese entrepreneurs.

**Objective** This paper hopes to find out the advantages and disadvantages of China's sports manufacturing through research and analysis, as well as how to expand human capital investment to enhance technological innovation capabilities so that Chinese sports manufacturing enterprises can occupy a place in the global industry.

**Methods** author while the concept of human capital and technological innovation capability analysis, combining the characteristics of Chinese sports manufacturing industry, search the development, production, sales, as well as analysis of Chinese sports manufacturing and corporate financial reporting and analysis at the market The advantages of more popular widely sought after companies.

**Results** The same Chinese sports manufacturing companies, Anta, a China sports brand, use of investment in human capital, making enterprises to upgrade; while ignoring the Shuangxing sports brand inputs in this regard, and gradually withdraw from the consumer market. Human capital is not only related to the survival of enterprises but also has a significant impact on technological innovation.

**Conclusion** The enterprise needs to realize the spiral improvement of Human capital -Technological innovation - Technological advantage - Human capital, so that the enterprise can continue to grow and grow in the market competition, and finally achieve the healthy and healthy sustainable development of the enterprise.

**Keyword:** Human capital, Technological innovation, Chinese sports industry.

# **INTRODUCTION**

The great leader of New China, Mao Zedong published an article in the Chinese Sports Research Journal in 1917. The article mentioned: "Civilization is its spirit, and barbarism is its physique". It has put sports development at a certain height all at once, and Promote sports in China. At the same time, China has enacted the Sports Law (China Law Net) in accordance with the Constitution. With the reform and opening up and China's accession to the WTO, people's lives are affluent and the pursuit of health is increasing. China's sports manufacturing industry has sprung up like mushrooms. In the beginning, it did not form a scale. It was mainly produced by a small category or small

workshop in the factory. Its influence is extremely low, and the profit is very small. However, since the Beijing Olympic Games and government has strongly supported the sports industry, China's sports manufacturing enterprises are facing the spring, the construction of stadiums requires a large number of sports equipment, the people need professional equipment to participate in sports, and the people also need high-quality clothing and sports shoes.

At the same time, the introduction of high-quality sports brands abroad has given sports manufacturers a certain blow. Such as Nike, Adidas, Reebok, etc., with super high brand awareness, new and fashionable products, good quality, but the price is more expensive, which is beyond the reach of most Chinese people. Meanwhile, China's Anta, Li Ning, 361 degrees and other domestic brands have a low price, high cost performance, and local advantages are slowly being favoured by consumers.

In 2012, China's sporting goods industry entered a cold winter. Sports manufacturing companies are struggling to survive, such as Anta's increased investment in human capital, top-to-low learning and a series of talent introductions, by creating a strategic transformation from "brand wholesale" to "brand retail" (Anta 2017) to optimize the organizational structure, To achieve proactive changes driven internally, and simultaneously improve the profitability of Anta and dealers. As the industry's overlord, the double star was left behind, the product is sluggish, and the enterprise is thin.

In 2018, the added value of China's manufacturing industry was 4 trillion US dollars, accounting for about 30% of global manufacturing. China is a well-deserved world factory. Made in China also has its advantages.

- 1.1 The advantages of the whole category, from aeroplanes to needles, from lowend to high-end products, China have production departments and many types of products.
- 1.2 The advantages of the supply chain, from R&D and production, logistics, to the hands of consumers, China minimizes time and cost and has abundant raw materials, which is conducive to factory production.
- 1.3 Population advantage, China is the country with the largest population, and the labour force is relatively low. With the popularization of education, a large number of engineers have poured into enterprises, which has also accelerated the development of R&D, production, and sales and services.

China's sports industry is at a relatively low level in the country's total GDP, and there is still much room for future development. In addition, with the rise of China's manufacturing industry, sports companies are expected to go abroad and increase their potential to occupy a place in the world market. However, the development of the sports industry is at a relatively low level and is in a backward position compared to developed countries (Jiang Xiaojuan 2019). China is dominated by cheap labor and production and processing. The investment in R&D and scientific research is not enough. The gap between China's sports manufacturing and developed countries is still very large. Can China narrow the gap in the next decade or even catch up, This is also the problem and challenges faced by many entrepreneurs.

In this study, technological innovation capability is regarded as a prerequisite. Starting with the sports manufacturing industry, explore the role of human capital in technological innovation. The technical innovation capabilities are divided into 1, research and development capabilities 2., resource capabilities 3, process innovation capabilities 4, product innovation capabilities. The stronger the technological innovation capability, the stronger the capabilities in services, products, resources, processes, research and development

#### LITERATURE REVIEW

# 2.1 Concept of human capital

In 1960, Theodore W. Schultz first proposed the theory of human capital, which has a history of 60 years. Conceptually, human capital refers to any conscious learning that creates value for individuals to flourish. Human capital is a carrier of human beings, which is a kind of knowledge and skills hidden in labourers. People cultivate it through deliberate practice the day after tomorrow.

This article starts from five aspects and discusses how to develop human capital investment. 1. Knowledge; 2. Ability and creativity; 3. Experience; 4. Skills and expertise; 5. Leadership and motivation.

# 2.2 The meaning of technological innovation

The Research Department of the Library of Congress of the United States proposed that technological innovation is a complete process from the generation of a new product or process ideas to market application, which includes a series of activities such as the generation, research, development, commercial production and diffusion of new ideas.

Technological innovation capability is a resource that companies need to improve current production processes and products (Damanpour F. 2018) For enterprises, the pursuit of scientific value and power of innovation, that it can improve the input-output level of enterprises, thereby enhancing the enterprise's Competitiveness. The starting point of technological innovation is market demand, and the endpoint is to obtain economic benefits through the market.

Anta changed from a traditional private enterprise to a company with international competitiveness and modern governance. Revenue reached RMB 14.8 billion, gross profit margin reached 56.1% (Anta Financial Report 2019) The company strengthened human capital investment, through employees' comprehensive training on all aspects of corporate strategy, strategy, products, services, etc., to enhance employees' awareness of strategy and strategy , The awareness of product quality and the emphasis on user service, which in turn, affect and enhance the execution of employees , while improving technological innovation capabilities.

Anta's innovation ability is second to none. From the earliest branding on CCTV, the first to invite celebrity endorsements, to the acquisition of world sports brands, forming a multi-brand, diversified, domestic and international strategic layout, Anta is exploring at every step. Are constantly developing and powerful.

As a company with a large number of employees, innovative spirit and excellent quality are passed on to each employee, keeping the company operating efficiently and keeping pace, Anta is based on three characteristics:

Full-person learning: From management to employees; from within the company to franchisees; from front-end retail to manufacturing centers, each department attaches importance to employee training and learning. Each department learns from each other, and the R&D department influences the fashion awareness and concept of the store employees; the store feeds back consumption trends and market conditions. Constructed an environment for mutual learning.

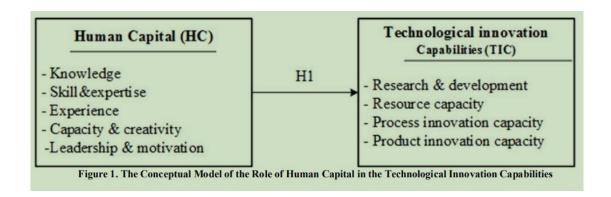
Objectives and performance orientation: Anta's learning is clearly guided by indicators, which can be implemented on each employee, strengthen employees' awareness of products, reserve sales potential, and direct knowledge to improve performance.

Leadership and driving force: Anta, which promotes happy learning and happy work, plans and organizes rich learning activities, with the purpose of enhancing employees' willingness to learn and work and creating a good learning environment. Promote employees

to learn consciously and integrate into the learning environment. At the same time, strengthen the cultivation of leadership to improve leadership.

In the 1990s of the last century, Shuangxing brand sports shoes became the standard for elementary and middle school students. At that time, they were proud of having Shuangxing sports shoes (Shuangxing 2017). Double Star once became China's largest shoemaking group. But now the black sneakers have become memories, and the double star has been silent for a long time. A large amount of investment in blindly expanding the market and increasing the popularity of products lacks talent selection, training, incentives and evaluation. Intensified internal contradictions within the company, differentiated sales channels, and finally caused a lot of uproar, which greatly damaged the company's vitality and increased the economic downturn, which caused the company to enter the bottom.

The study on the role of human capital and social managers in corporate technological innovation shows that managers with higher human capital, social capital, experience and knowledge, invest more in technological innovation (Seyed Mohammad Javad Razavi 2019). Including production process, R&D process, after-sales service, product performance and human capital. Given the importance of each impact structure to human capital, as shown in Figure 1.



#### **DISCUSSION**

The results show that in a sports manufacturing company, highly educated managers with extensive knowledge and experience are more capable of understanding and evaluating new information, and distinguish promising and useless ideas (Seyed Mohammad Javad Razavi 2019). It makes management People can use their skills, expertise, knowledge, experience, and creativity to carry out product innovation, process innovation, and R&D. Therefore, the sports manufacturing industry has developed along with the improvement of technological innovation capabilities.

In all dimensions of human capital, the skills and professionalism of personnel, leadership and driving force, and knowledge have priority. Therefore, in Chinese sports manufacturing companies, people's skills and expertise play a more significant role in human capital development, and the research results are consistent with the results of Naderi et al. (Naderi A, Heidari T, AmiriA 2016) Having skills and expertise is the development of human capital. Skills and professional knowledge as a dimension of human capital can bring unique knowledge to individuals, which can only be achieved through intangible information of the enterprise. This involves the employees' privileged skills in providing solutions to the company's specific problems, and helps them use more unique operating practices that play an important role in the development of human capital in Chinese sports manufacturing companies. The second factor that plays an important role in the development of human

capital in sports manufacturing companies is leadership and driving force, which is consistent with Vidotto's view. (Vidotto JDF, Ferenhof HA, Selig PM, Bastos RC 2017) By providing financial and non-financial incentives and creating equal opportunities for employee promotion, all staffing capabilities can be used, which may lead to the development of human capital in sports manufacturing companies. Finally, the third factor contributing to the development of human capital in Chinese sports manufacturing companies is knowledge. This finding is consistent with that of Marimuthu et al. (Marimuthu M, Arokiasamy L, Ismail 2009)

#### **CONCLUSION**

In today's market competition, with the technological advancement of sports manufacturing companies and the continuous improvement of market information liberalization, no product will have a competitive advantage for a long time. Enterprises can only continuously improve technological innovation by increasing human capital investment. Gradually gaining technological advantages, producing core products, using the core products, and derivative product series to form the competitive advantage of the enterprise. This competitive advantage is maintained for a long time, gradually increasing the human capital advantage of the enterprise, and then carrying out a new round of technology Innovation, maintain the technological and competitive advantages of the enterprise, and realize the spiral improvement of "human capital—technological innovation—technological advantage—human capital ", so that the enterprise will continue to grow and grow in the market competition, and ultimately achieve a healthy and healthy enterprise. Continue to develop.

China's sports manufacturing industry is not like the United States. Germany's transition from the third industrial revolution to the fourth industrial revolution is at a low level in the production process, product quality, research and development, and resources. Under the wave of Industry 4.0 and the action plan of Made in China 2025, the sports manufacturing industry must build a digital organizational structure based on its own development status and industry development trends, increase human capital investment, focus on the overall situation, use it for cooperation, and create a good industrial ecology system.

Considering the research results and various aspects of human capital, the manager and owner of the Chinese sports manufacturing company are advised to make two suggestions:

- 5.1 Create a knowledge management system, build a rich personal database, and discover, attract and train employees, support employees to put forward new ideas and determine their career development path.
- 5.2 The managers of Chinese sports manufacturing companies should work closely with their R&D departments to improve quality and lean production when upgrading innovative products.

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# THE INTERNATIONAL STUDENT TRAVEL MARKET: BACKPACKER MOTIVATIONS AND ACTIVITIES

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#### **ABSTRACT**

This paper investigates the backpacker phenomenon within the international student market. The aim of this research is to explore what the main motivating factors are; do the experiences a backpacker embarks on influence a change in their personal development and whether the ideology of the 'backpacker' is still evident today. In order to achieve the overall aim a set of objectives have been designed: To examine the history of the term 'backpacker', To explore the Thai backpacking market, and To review motivating theories, experiences and personal development in travel and the impact they can have on personal development. This paper has taken a quantitative approach to methodology in the form of a questionnaire. The main finding of the study were; the motivations that influence an individual to go backpacking are; to escape, experience a different culture, meet new people, have an adventure and partake in adventurous activities. Furthermore the main characteristic found in personal development was confidence, followed by a change in their attitude in the way they perceive the rest of the world. This research also has investigated the motivating factors in travel and how an experience influences a change in personal development by using primary and secondary research. From the study it is apparent that there is a set of core motivators that implement an individual's decision to go travelling, as well as certain personal characteristics being affected by their experiences.

Keywords: International student, Backpacker, Motivation, Travel market.

# **INTRODUCTION**

The backpacking phenomenon there has been an increasing blurring of the distinction between free independent traveller (FIT) backpackers and youth travellers undertaking extended tours offered by commercial operators. This has had consequences for the suppliers of tour and related products that are likely to appeal to backpackers. At the same time, there has been a proliferation of commercial backpacker hostels and destination-based tour products targeted specifically at backpackers' needs. This paper investigates the provision of tours (both day and extended) targeted at backpackers, how backpackers source information about such products, the extent to which they engage in advanced product booking and purchases, and the various segments that exist within the backpacker market. The research was conducted exclusively in Thailand but doubtless has broader applicability since its focus is on international backpackers. There are many international student backpacker visit Thailand every year. Thailand, as one of the most popular tourist site in the world, is decorated by beautiful natural sites, historic landmarks, unique cultural tradition and friendly people. All facilities and service are available in reasonably budget. Many tourists from all over the world including backpackers visit and enjoy their vacation in Thailand, especially Bangkok. As the capital of Thailand, Bangkok is full of many tourist sites.

Currently, trend that focuses on creative tourism, that is, tourists began to experience the direct experience of the culture of life. And study the way of life Traditions and customs of the community in more tourist destinations Therefore, this type of tourism needs to combine cultural knowledge with the evolution of technology. This is in line with the government's policy that focuses on the development of the knowledge-based economy and the creative economy as included in the 11th National Economic and Social Development Plan (2012-2016). Knowledge and creative economy As included in the 11th National Economic and Social Development Plan (2012-2016) ", 2012) by creative tourism Towards expanding the tourism industry of Thailand Creating value and value From what exists, especially cultural heritage and way of life, where tourists can participate and create new experiences gained from traveling in various places through community-based tourism management. There is a group of tourists that have a traveling style, known as Backpackers, a large number of tourist attractions throughout Thailand. This group of tourists does not want much convenience. But take a long time to stay in each country between 1 month to 1 year, which is different from general tourists (Tourist) who want to be comfortable And travel facilities and have a stay in the range of 2-1weeks. If looking at the total cost The backpack tourists group is 2times higher than the general tourists and 3times as high compared to other groups, which are the strengths of tourism in Thailand. When compared to other countries in Asia that the backpackers are impressed with In addition to being a tourist destination Thai food and way of life is still something that tourists This group considers It's a new experience. That adds color to travel Which will be seamlessly integrated with Creative Tourism mentioned above (" 10advantages that we should travel by ourselves like Backpacker", (2015.

This paper provided an opportunity to investigate further, by exploring the backpacking market and focusing on the motivations behind an individual wanting to partake in such an experience and how it influences a change in their personal development, as Riley (1988) and Suvantola (2002) identify travel as a 'rite of passage'. The aim of this paper is to explore the backpacker phenomenon focusing on the student market: what are the main motivating factors; do the experiences a backpacker has embarked on influence a change in personal development and whether the ideology of the 'backpacker' is still evident today. In order to achieve the overall aim a set of objectives were designed (1) to explore the international student backpacking market in Thailand. (2) To review motivating theories, experiences and personal development in travel and the impact they can have on personal development. The structure of this paper consists of the literature review in Section 2, methodology used in this research in Section 3, data analysis in Section 4, followed by the conclusions and future research in Section 5.

# LITERATURE REVIEW

# 2. 1 History of the backpacker

In 1990 was the year where the term 'backpacker' first appeared in academic literature by Pearce (1990), he made a point relating Ross (1988) idea 'the drifter' with the hippie traveller from the 1970s and Riley (1988) term 'tramping' from the 1980's in order to come up with the term 'backpacker' and identified the criteria of the traveller as; 'low budget accommodation, an emphasis on meeting other travellers, an independently arranged and flexible travel plans, longer and informal vacations and unstructured vacation activities'. Therefore this has become the most widely recognised definition of a backpacker and the characteristic of a budget traveller. A large proportion of backpackers are students who are taking a gap year after finishing their further education and before committing themselves to

a job and responsibility of everyday life (Swarbrooke & Homer, 2006), it has become a real 'rite of passage' for young people of today (Ross, 1998). Once seen as an insignificant handful of 'drifters' and 'hippies' to becoming a mainstream globalised industry (Richards & Wilson 2008). Rose (1998) came up with the term 'drifter' and describes them as travellers "who prefer to stray from the beaten track and avoid the more conventional tourist establishments" although the term never caught on unlike 'backpacker' and 'independent traveller' his basic ideology of the drifter; travelling to a new destination, seeking an authentic experience; to get as far away from home, familiarity and the safety bubble as possible, have no fixed itinerary, want to have social interactions, gain independence and to completely escape and immerse themselves into the local people and culture did.

#### 2.2 Motivation

Travellers travel in a response to what is lacking in their life; such as to experience something different that is not offered in their home environment (Dann, 1981) the need for an authentic and genuine experience (Richards & Wilson, 2004) to increase ones knowledge of other countries and cultures (Paris & Teye, 2010), to be educated and learn by long term travel (Riley, 1988). The desire to meet new people and seek new experiences (Paris & Teye, 2010), to immerse into the local culture, community and interact with the local people (Rose, 1998).

The backpackers motivation to travel has been broadly researched over the decades amongst many academics, all coming up with the same if not similar Motivation theories consisting of the push and pull factors. Paris and Teye (2010) found four recurring motives, these being the desire for an authentic experience, uniqueness and action activities, social and cultural capital and to learn and achieve. Paris and Teya (2010) found that to explore other cultures, to increase ones knowledge and the need of relaxation. Furthermore Paris and Teya (2010) suggest that these finding are the existence of a set of core backpacker motivations. Wilson and Richards (2008) focused on characterises backpackers as motivated by excitement and adventure, as well as by the opportunity to meet local people. The status of travel is viewed as less important than the opportunity for personal growth and development. Following Rose (1998) characterises backpacker travel as a form of cultural capital that depends on a shared interest between the backpacker and his/her audience. If a backpacker's family, friends and associates are not interested in hearing about the travel experience, then the value is diminished. Backpackers may undermine the perceived value of the experiences of fellow backpackers if they characterise them as less 'authentic' than their own (Desforges, 1998). Riley, (1988) explains that, in terms of destination and experience, travellers may be positioned on a continuum between authenticity and artificiality. Different backpackers may view the cultural capital or authenticity associated with a given situation very differently.

2.2.1 Push Motivators: There are only some of the literatures who talk of the push and pull motivations (Alexander, Bakir & Wickens, 2010). Push being the detriments of travel such as escape, gain experience and cultural capital, to form new friendships and discover the world (Richard and Wilson, 2004). Travel career ladder was adapted from Maslow's (1943) needs of hierarchy, it provided the basic needs structure of the push and pull motives. It starts with the psychological needs that include the push factors escapism; to escape from perceived mundane environment from the everyday routine, familiarity of friends, family, work and relationships for the chance to make new friends and form new relationships. However the motivation of escaping in order to experience a fantasy can be portrayed as backpackers being drawn to travelling and certain destinations in order to undertake behaviour that would not be seen as acceptable in their home environment (Dann, 1981) and having these fewer social restrictions allows travellers to try on other identities without their friends and family pressure to conform or judge (Cooper et al, 2008) unfortunately these types of behaviour

can then portray a serotype of the backpackers as 'all young travellers want to do is relax party hard, dance, drink heavy and have lots sex' (Swarbrooke &Homer, 2007).

2.2.2 Pull motivators: travel is then motivated by pull factors such as; freedom, learning, relaxation, seeking independence and personal development. The desire for a greater sense of freedom that travelling gives you then that of being in your home environment (Riley, 1988), it helps you break free from the obligation of everyday life to be unrestrained and your own boss (Krippendorf, 1989). Richard and Wilson, 2004 provided doing nothing strenuous just hanging out and doing nothing can be an import part of the backpacker experience as it provides time and space to reflect on life and 'find oneself' (Richard and Wilson, 2004). Therefore an important part of the backpacker's path today is about self-discovery and personal development (Suvantola, 2002), to find themselves for gaining independence, status, knowledge and meaning along with appreciation for beauty, balance and form (McLeod, 2007), in order to achieve an end result of self-actualisation (Maslow 1943; Pearce and Caltabiano 1983).

One of the main motivators for travel is personal development as well as being seen as one of the main benefits. So backpackers are on a path to finding themselves', having the chance to mature, grow up and learn to look after oneself (Godfrey, 2011). Along with acquiring culture capital that teaches young people to be independent and self-dependant by forcing them to completely rely on themselves and no-one else (Paris & Teye, 2010) therefore leading onto enhancing personal confidence which is a positive attribute to bring home and improve one's social standing among family, peers and even employment as they have better knowledge of the world and foreign cultures than their family and friends who have never left their comfort zone.

#### RESEARCH METHODOLOGY

This section discusses research methods undertaken in the course of the research. The methods undertaken can be found briefly described in the following sections.

#### 3.1 Research Design

This research combines both methods of qualitative and quantitative. In order to find the results for this study a quantitative approach to research had been taken due to the large sample size and limited timeframe. This research also used both secondary and primary data, secondary in the form of a collected range of reviewed and evaluated written literature on the backpacking phenomenon from a variety of published sources. The questionnaire related to both travellers and non-travellers in order to obtain a wider scope and receive more feedback from different perspectives. The sample size of the questionnaire was 448 and had been aimed at the target market of international students. The questionnaire obtained 18 questions and included both open and closed questions (Finn et al, 2000) which related back to the literature and reflected back on the objectives to support or reject the aim of this research.

# 3.2 Data collection analysis

The data collected from the participants had been independently analysed using statistics in the form of frequencies and percentages of the answers recorded from the questionnaires which related to backpacking experiences. The data from this research has also been analysed and compared by the use of cross-tabulations and chi-square tests displayed in the form of tables, graphs and charts. The 448 questionnaires were individually reviewed and coded, and the open questions have been coded by looking through the questions to find common themes amongst the answers (Pallant, 2007). There were four

common themes found from the data collected 1) Australasia being the dominating destination followed by Asia, 2) Experiencing a different culture and language, 3) The adventure and meeting new people and 4) Confidence. The common themes were also supported by the theories from the literature researched. The questionnaire has also been split up into three the objectives of this research. The cross tabulations will be used when comparing two sets of data and will be tested at the significant level of .05, then for there to be a cross tabulation there needs to be a hypothesis, and in order to find the hypothesis the data will be analysed using the chi-square test, using the value of the chi-square  $(x^2)$ , the df and the p value also known as the Asymp. Sig value, and the following equation will be used  $x^2(df) = (x^2), P > .05 =$  Hypothesis. Then to determine whether there is any significant difference in the results the p value gets compared to the level of significance (.05), which will either reject or retain the null hypothesis (Kinnear & Grey, 2010).

#### **RESULTS AND FINDINGS**

This section discusses the results and findings of the research. Statistical records represent

# 4.1 Frequency Analysis:

The data analysis showed more female (58.8%) than male (41.2%) and 50% of the participants were 22 or over, closely followed by the 19-21 age group (31.8%) (Riley, 1988). Over 54% had been travelling and 39.7% went for a period between seven months to two years, the results showed 38.5% went to Australasia followed by Asia (16.2%). Over 50% of the participants strongly agree/agree with 3 of the 4 statements in question 6, supporting Niggel and Benson (2008) 4 push motivators; these being having more confidence, a change in their attitude in how they view their life and the rest of the world. Furthermore over 47% strongly agree/agree with the need to escape, increase knowledge and to experience other cultures (Cohen, 1973, McIntosh, 1977) closely followed by Riley (1988) and Pearce (1990) emphasis of meeting new people (43.9%) and McIntosh, Goeldner & Ritchie (1995) finding of the need for new experiences and adventure (40.6%) whereas only 34.4% felt the need to go and relax (Grey, 1970, Richard & Wilson, 2004) and 33.8% for freedom (Riley, 1988, Krippendorf, 1989) therefore concluding it was not as important. Moreover when analysing the results relating to the history of the backpacker 43.9% of the participants (f=81) strongly agree/agree with backpacking as a 'rite of passage' identified by Graburn (1983), Riley (1988) and Suvantola (2002), As well as 52% strongly agree/agree on the importance of meeting other travelers.

Form the quantitative data sample that had been coded and analysed. The results found that those who had been travelling to (f=81) e.g. Australasia and Asia, 11.5% mentioned the adventure an activities, a further 10.1% referred to escape and experience a new culture (Grey, 1970, McIntosh 1977, Crompton, 1979) and see the world, whereas only 6.1% referred to partying/relaxing (Grey,1970). Which were similar findings to Q4, as 22.3% recalled the adventure and sporting activities, 12.3% recalled meeting new people (McIntosh, 1977, Pearce, 1990) and 10% recalled the culture. The Q:What have you leant about yourself; 25% mentioned personal development, 9.5% recalled gaining new skills and ability to meet people and make friends as well as knowing more about the world and understanding other cultures. Finally when the participants (f=148) were asked to describe a backpacker, 23% referred to them either being Free, independent and someone with no responsibilities, 21.6% said on an adventure/ experience and a further 16.9% referenced to them being poor and living off little or no money (Cohen, 1973, Riley, 1988 & Pearce 1990).

#### **4.2 Confidence:**

The final commonality collected from the data was confidence, when asked how much they had changed or what they had learnt from their trip. The results showed all four of the statements supports Suvantola's (2002) theory of a backpackers path being about self-discovery and personal development, as well as Mcleod (2007) theory of gaining independence, status and knowledge. So the results showed over 50% of the participants agreed/strongly agreed with personal development being one of the main things they got out of their experience which supports O'Reilly's (2005) theory to find themselves and define their identity, Mcleod (2007) theory of gaining independence, along with Maslow's (1942) and Pearce and Caltabiano (1983) theory of working on their self-esteem by gaining confidence in order to achieve self-actualisation.

# **4.3 Cross-Tabulations and Chi-Squares:**

The following section shows a variety of cross-tabulations and chi-square tests from the results that the researcher wanted to further analyse.

- 4.3.1 The history of the backpacker: the chi-square analysis results: HO hypothesis: $x^2(5) = 7.379, P > .05$ . Overall it is clear that there is no significant difference between those who have gone travelling and those who have not when asked to describe a backpacker. Therefore this next test was done to see if there was a difference between why females think it is important to meet other travellers to males, So from the cross tabulation results and confirmed by the chi-square test there is no significant difference between males and females and why they think it is important to meet other travelers.
- 4.3.2 Thailand backpacking market: So to support some of the researched literature a comparison on those who had gone travelling and age group was analysed. There is a clear significant difference between those who have gone travelling and age, especially age groups 19-21 and 22+ compared to 18 or under. The results from the chi-square test: H1 hypothesis,  $x^2(2) = 30,249,P < .05$ . There is a significant difference between the age groups. This shows support in the literature with travellers most likely being young adults; as age groups 19-21 are students taking a gap year (Swarbrooke & Homer, 2006) before or during university and 22+ are those who have already graduated and are need of a break before settling into real life and commitment (Riley, 1988). Moreover, there is no significant difference between males and females and those who have been travelling. The results from the chi-square test: HO hypothesis:  $x^2(1) = 3.549, P > .05$ . Which also conclude there is no significant difference in males and females who went travelling.
- 4.3.3 The motivating theories and experiences in travel and its impact on personal development: This statistical test is to see whether there is a difference in why males travel to why females travel. There are no difference with to escape, party have fun and relax or life experience/find oneself between genders however there was a difference between to experience a new culture/to learn and for the adventure/sports/activities which seemed to be more important for the men, where meeting new people seemed to be more important for the women. The Chi-Square results: HO hypothesis $x^2(6) = 6.446$ , P > .05. However it is clear there is no significant difference between the males and female sand why they have gone travelling. This next comparison test was done to see whether there was a difference between gender and what they had learnt by focusing on: a) personal development, and b) learning more about the world and understanding other cultures. So out of the males that answered 36.8% of them mentioned personal development as well as 56.1% of the females and 21.1% of the males mentioned learning more about the world and understanding other cultures as well as 14.6% of the females. Additional, the results from the chi-square test, which shows the null hypothesis was retained,  $x^2(4) = 3.852$ , P > .05. Therefore to conclude no more

females came away from their experience with better personal development or learning more about the world and understanding other cultures than males

# **CONCLUSION AND DISCUSSIONS**

The final section will draw conclusions from the primary and secondary research and show if and how the aim and objectives have been achieved.

# **5.1 Backpacking market:**

So the study found that the backpacking market were young adults aged between 19-22+; those who have taken a gap year before or during university (Swarbrooke & Homer, 2006) and after university before staring full time employment (Riley, 1988). The results also found that the majority of the participants had gone to Australasia and Asia having been drawn in by the authentic culture and adventurous activities (Mintel, 2015 & 2016).

#### **5.2 Motivation:**

Within the literature, the author came across many theories on motivation from the findings of; Grey (1970), Crompton (1979b), Dann (1981), Riley (1988) and Suvantola (2002) who found travel as a need to escape, gain cultural experience, meet new people and have an adventure. The primary research also found these five particular push and pull motivating factors; to escape and see the world, increase ones knowledge, experience other cultures, the need for adventure and partake in adventurous activities and finally to meet new people.

# **5.3** Backpacking experiences and personal development:

The results found that backpacker's experiences had changed their attitude about how they perceive the rest of the world, how they have become more open minded as well as valuing their home life (Seamon's, 1979). Furthermore the results showed common themes amongst the participant's answers and with the works of; Grey (1970), McIntosh, (1977) and Dann, (1981) who also suggested, to experience a different culture and language, to have an adventure and meet new people. The primary research also found the main impact the trip had on the participant's personal development was self-discovery (Suvantola 2002) and how much they had grown in confidence (Maslow, 1942).

This paper has explored the backpacking phenomenon in Thailand within the student market. It has explored the history of the backpacker to get a basic understanding of who they are and what their traits and characteristics are, in order to investigate what motivates them to travel and how their experience has influenced a change in their personal development. From the research it is apparent that there is a set of core motivators that implement an individual's decision to go travelling which reoccurred for each participant. Furthermore the investigation shows individuals are similarly affected personally from their experiences as it helps an individual to grow in confidence, mature and be independent as well as opening up their mind to the rest of the world to help prepare for the future.

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# A STUDY ON THE PROMOTION OF INNOVATIVE EDUCATION ADMINISTRATION WITH THE APPLICATION OF BLOCKCHAIN TECHNOLOGY

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#### **ABSTRACT**

In recent years, along with the rapid development of Internet information technology and the application of big data management, blockchain technology has been benefited by distributed ledger technology with its technical advantages of de-neutralization, high trust, and collective maintenance of reliable data. Governments of all countries have paid great attention and have been widely promoted in the fields of finance, technology, energy, food, and medical care. Adopting blockchain technology to promote the innovative development of education management methods is a topic with great market potential and research value. This article takes the use of blockchain technology to promote the research of educational management methods innovation as the subject, and through analysis of the current status and development problems of the application of blockchain technology in educational management methods, it proposes relevant countermeasures to use blockchain technology to promote the innovative development of educational management methods. It is hoped that through research, it can provide reference development strategies for the application of blockchain technology to promote the development of education management methods. I hope that through the research, the use of blockchain technology to promote innovative research in education management methods can provide reference development suggestions for the application of blockchain technology in education management. At the same time, I hope that through the research of the paper, it can provide relevant reference parts for the application of blockchain technology in other fields. Blockchain technology, as a digital currency derived from bitcoin, is a distributed ledger management method that uses blocks as a chain for network data transmission and record storage management. It helps promote decentralization, high trust, and record management across the entire network. The innovative development of educational management methods has theoretical research value and practical significance for abandoning the disadvantages of traditional educational management and improving the quality of innovation and development of educational management methods.

**Keywords**: Blockchain technology; Education management method; Application

# **INTRODUCTION**

Based on the trend on Chinese education development and the problems in education administration, this research is going to analyze the advantages in promoting the blockchain technology in innovative education administration, and probe into the possibility of the promotion of blockchain technology in innovative education administration in respect of the systems, legislation, investment and some other realities existed in today's Chinese education reform and education administration. In addition, this research also goes to analyze the various applications of the blockchain technology in innovative education administration. At present, blockchain technology is one kind of advanced information technology, although people are trying to apply it in various applications, it is still at the beginning, and the imperfections in infrastructure, methods also call us to further explore it so as to find a specific and feasible solution to apply blockchain technology in various fields. It is because of this situation that this research just chooses to discuss some perspectives in the application of blockchain technology in the general education administration, and analyzes the feasibilities of them. In the end, this research also wants to establish one innovative education administration using blockchain technology, and put forward some specific approaches in promoting the innovative education administration, so as to provide some advices and suggestions to the innovative education administration using blockchain technology.

#### LITERATURE REVIEW

Prior to Chinese researchers, the researchers abroad have given prior research about the application of blockchain technology in education administration. Many education institutions and educators have given certain focus on adopting advanced blockchain technology to promote the development of education informitization, for they believe that this new method can solve many teaching problems, especially the problem about the management of educational background and school roll could develop in a informatized and decentralized direction.

Houberton school, first puts forward the idea that the school records education management information by the application of blockchain technology in the world. The blockchain technology has enforced the identity authentication of the curriculum-oriented data, ensuring the authenticity of the recording of education administration data, which can promote the education information can be stored in blockchain database and guarantee the autheticity of education administration data. The data recording via the open network promotes the valid, safe, esay data administration. Education administration via blockchain technology can save the cost of labor management and search operation, so as to save time at the same time. In 2007, Houberton school publicize some education information on the platform applying blockchain technology.

One digital media lab at Massachusetts Institute of Technology (MIT) once said, if edcution administration is on the premise of blockchain technology and on the basis of bitcon at the same time, it can generate some education administration interface through some mobile device APPs, and achieve the point-to-point transmission between the sender and receiver. In 2008, MIT first awards the digital diploma for the graduates via the blockchain platform.

Sony Global Education, one branch of Sony, once claimed that it would cultivate education service system with IBM, trying to provide tracking services to students and to guarantee the safety of education information by the application of blockchain technology, which could make students, school administrators and the future employers could share the data on the blockchain-based platform.

The research about the application of blockchain technology at home begins later than it in the developed countries in European and American, but with the development of

blockchain technology, the application of this technology has already been applied and publicized in some fields. Some Chinese educators and education institutes is paying attention to the application of this technology in education administration.

Zhang Zhao, Jin Cheqing, Zhou Aoying (2019, pp. 1-9) put forward, the application of blockchain technology in education administration has a promising prospect and has a great significance in advancing the credibility and open of education administration. Liu Hu, Yu Yue, Jiang Wansheng (2020, pp. 1-14) said, the application of blockchain technology in education administration in China is still at initial stage, and it has limited cases and ideas in its application. From this point, it is necessary to promote this technology application from the collaborative effort of industry-academy-research and some other aspects. In promoting this technology in education administration, the researchers should give much attention to the characteristics of blockchain technology, so as to dock the technology and education administration. Huang Lei (2019, p. 142) said, the researcher should pay more attention to the analysis of the characteristics and existing practice of blockchain technology, and the theoretical research about blockchain technology applied in education administration. Only focuses on the technological characteristic of blockchain technology can we promote this technology will be applied in the education administration. Chen Xiaoling, Luo Kaiyun (2019, pp.170-171) put forward, the characteristics of decentralization, open, distributed data storage possessed by blockchain technology facilitates the reform of traditional student information administration system and makes it easier to be efficient and regulated in administrate student profile from the technological perspective. The application of blockchain technology in administrating student profile is very worthwhile promoting and has a great prospect.

#### CONCLUSION AND DISCUSSIONS

Currently, blockchain technology, as one of the latest trends in the development of network information technology, adopts the distributed storage structure, which has many technical advantages compared with the information storage structure by the traditional Internet technology. Therefore, it is being explored and applied in many industries. To promote innovative education administration by the application of blockchain technology is one of the ways to explore and apply blockchain technology in the field of education. The application of blockchain technology in education administration is conducive to promoting the informatization of China's education administration, improving the efficiency of education management, which help education administration plays a better role in promoting the running of education system and the quality of education service. At the same time, by adopting the advantage of "decentralization", the application of blockchain technology in education administration can motivate every education administrator to take part in education administration, even attract ordinary teachers to involve in education administration, so as to eliminate the gap or difference between education administrator and ordinary teachers and improve "pan-politization" existed in education. The application of blockchain technology in education administration is conducive to promoting the innovation and improving the quality of education administration. While improving the efficiency in realizing the value and the goal of education, the application of blockchain technology in education administration also can promote education administration to be developed towards a more innovative direction. This study is based on the past of literature, future research can collect the primary data and investigate the implication of blockchain technology in education management.

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## CHINA'S FILM INDUSTRY MARKETING RESEARCH

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#### **ABSTRACT**

The film industry plays an important role as a country's pillar industry. Generally speaking, the film industry also contributes to a large extent to China's economy. Films manufactured by western countries have a bigger-size market share in today's China. It is in part due to the fact that there is a lack of film marketing in China's film industry. The present paper analyzed movies from the perspective of film's positioning, distribution and dissemination strategies to discuss three aspects of China's film marketing. The results from the current study show the extent of a powerful marketing selling point of departure. By drawing from selling points of the film, effects of well-known brands, thematic effects, production technology, and status and significance of the film, China's film industry likely achieves effective and practical communication with audience.

**Keywords**: Chinese films, movie marketing, training, problem, strategy.

#### INTRODUCTION

## 1.1 Research Question

Marketing of Chinese film industry is receiving great attention. The number of Chinese films is increasing year by year, and their quality also keeps improving. But most marketing teams would fail to accomplish their marketing targets in operation due to various conditions. This paper discusses the marketing strategies of Chinese films from many perspectives of films, and the following literature suffices to elucidate the question:

Huang (2005) believed that market pattern referred to the objective regularity that enabled enterprises to meet the realistic and potential needs of consumers and users on the basis of a good understanding of the market in a specific market environment, taking products, distribution, pricing and promotion as the main content. Thus, the research objects of film marketing include: production, sales channels, terminal sales network, and consumers of films, the four of which make up the basic elements of film marketing system.

Li (2006) believed that a lot of film products couldn't show their economic and artistic value to the maximum degree due to the deviation between Chinese film marketing strategies and the requirements of its industrial development. Regarding such status-quo, the concept of applying integrated marketing to construct integrated film marketing patterns catering to domestic national condition has to be constructed through an analysis on the current development of marketing for Chinese films.

Wang (2009) believed that a calm reflection on the status-quo of films made from China was needed through his empirical researches. On the face of it, domestic filmmakers

have successfully learned and practiced Hollywood's marketing strategies and created many sensational film marketing incidents, winning surprising box office revenue while building their own directing and film brands. However, a deep analysis would reveal that there is still a wide gap between the film marketing of China and Hollywood, be it from the perspective of concept, the specific implementation of strategies, and the systemization and rigorousness of film marketing itself. Overall, domestic film marketing is still at its infant stage.

Film marketing has received great attention far and wide in China, but successful marketing isn't necessarily perfect. Films are not life necessities, but a recreational consumer product. In the history of Chinese film marketing, films have always taken the approach of fast-food marketing, and film consumption is believed to be the only thing needed, lacking a full understanding and in-depth tapping into the value of films. Problems with film marketing would appear at various stages of films. In general, there are the following problems with film marketing: incomplete film marketing, excessive film marketing and deviation in the publicity emphasis of film marketing.

To begin with, there is a problem called the incomplete marketing with some films. Incomplete film marketing means a certain marketing link fails to receive enough attention in the process of film marketing, so that the outcome of film marketing hasn't met the expectation. Film marketing is divided into three important stages: film preparing stage, filmmaking stage, and film publicity stage. The biggest weakness and merit of film marketing is that the information is digested too rapidly, and the public won't pay attention to information of the same type for too long. Therefore, film marketing has to proceed in all of the three stages. But some film marketers would ignore a certain stage and put the emphasis on the marketing during the two other stages. If course, some films do have succeeded in marketing, however, for most cases of film marketing, neglecting any stage would be critical. The goal of marketing is facing the market, which means profiting. Fracture at any stage of marketing would cause huge commercial risks, disabling benign development between input and output, thereby leading to economic problems.

Secondly, some films suffer from the problem of excessive marketing. Excessive film marketing means people start to feel exhausted as there are too many film marketing events that keep repeating in the process of film marketing, so as to affect the marketing effects of films. Persistent film marketing was originally intended to publicize films, without an accurate grasp of the scale, there would be great contrast in marketing. Nowadays, people face many choices, and the information the public need to screen is voluminous enough every day, repeated appearance of the same information would make people feel worn out and annoyed with everything related to the information. The same is true with films. Consumers no longer hold steady expectation of films, which would not only easily deprive them of reputation, but also expand the feeling of disappointment derived from films to the derivatives of films. When consumers are disappointed with films, they would find other film replacements. This circumstance is what film marketers wish to see.

Finally, the publicity of film marketing would deviate from its proper emphasis in some cases. Deviation of publicity emphasis means that the publicity of films runs counter to its goals due to the failure to grasp the essence of films and misuse of film concepts in the process of publicity. The marketing approaches of each film can be diversified, but there should not be too many emphases in marketing publicity. The selection of film publicity points of films should combine the publicity points and films to attain the goal of marketing publicity on the basis of showing the essence of films. When deviations appear in film publicity, consumers tend to receive chaotic information on films, preventing them from discriminating the information they need. This is not a marketing disaster, but all film marketing efforts are made in vain, completely wasting material resources, labor forces and financial resources, and the efforts can't be paid. Disasters can still be reversed with countermeasures, but useless efforts have to start from scratch, and the costs produced from

films would keep increasing, making it more likely for films to receive no response, depriving them of the opportunity to face the audience. This circumstance is undesirable for all film makers.

#### 1.2 Research Objective

The importance of the development of cultural industry for China, as a cultural power, is inevitable. Film industry, on the other hand, play a critical role in cultural industry, therefore, the concept of film marketing bearing huge influence on film industry is naturally studied and followed by many people. But the Chinese film marketing concepts fall behind the development speed of Chinese films. Therefore, there are still a lot of shortcomings with the existing domestic film research theories, especially in terms of marketing theories, lacking innovative and pioneering train of thought. It is an important problem facing Chinese films to succeed with effective marketing strategies.

In the recent couple of years, Chinese films ultimately start to pick up after experiencing years of downturn period. Not only are there considerable box office revenues, the content of films is also enriched. However, in the current film market, the reputation of domestic films is still relatively poor compared with Western films represented by Hollywood films. As we can see, there are few amazing works apart from those directed by well-known directors. A greater number of domestic films are still unknown to the public. An important reason is the incomplete and ineffective marketing system of Chinese films. Therefore, researches on domestic films appear more and more important especially for the development of Chinese film industry. This paper analyzes and compares excellent international film marketing strategies and employs relevant theories such as modern marketing approaches aimed at improving the marketing level of Chinese films.

#### 1.3 Research Background

After reform and opening up, with the reform of Chinese film system, the film industry becomes gradually prosperous, and different types of films start to spring up in the film market, making the market more and more competitive. A general survey of the distribution of domestic films in recent years shows that they have basically all referred to the film marketing approaches of Hollywood, and lack local and systematic marketing experience in a real sense.

Although Chinese film marketing theories were established later than Western theories, as China becomes the second largest film market in the world, the role of film marketing is improving year by year. According to the report of National Radio and Television Administration, the box office revenue of Chinese films reached 9.07 billion dollars in 2019, up 46% compared with the revenue in 2015. This shows the brilliant development potential of the Chinese film industry in the future. As one of the fastest growing film markets in the world, China puts on over 100 films every year lately, and with the prosperous development of the Chinese film market, the whole world would look to China, and they believe that the Chinese film market has great development prospects. With the continuous development and expansion of the Chinese film market, the fight for the film market will also become more fierce, and film marketing strategies are critical to fully disseminate films and blaze out a trail among numerous competitors.

#### LITERATURE REVIEW

#### 2.1 Initiation of Modern Film Marketing Patterns

In the early 1990s, Don E.Schultz, a well-known American scholar, put forward a modern marketing approach—integrated marketing communication, which became a highly regarded modern marketing pattern. The gravity of marketing communication thinking moves from asking consumers to advocating attention to paying attention to consumers. Therefore, integrated film marketing is to maximize the functional effects of integrated marketing serving marketing. Yimou Zhang achieved successful film marketing strategies through media hype, but news hype have the characteristics of a "double-edged sword", looking for external elements of hype without being dedicated to improving the quality of films themselves, stagnating the profitability of commercial films. Referring to Hollywood's measures and allocating film resources through integrated marketing are the way out for the Chinese film industry. Chinese film marketing has to be integrated marketing centering on the mutual interests of producers, distributors and consumers. This shows the importance of integrated marketing in the development of film business. "Integrated marketing takes the integration of all internal and external resources of enterprises as the measure to recombine and rebuild their production and market behaviors. In a word, integrated marketing is a comprehensive and consistent marketing approach that fully motivates all active and available elements to realize the objectives of enterprises." This concept bears important and profound guiding significance to the Chinese film marketing. It requires Chinese film marketing to be integrated marketing centering on the mutual interests of producers, distributors and consumers (the audience). It has to be holistic and dynamic, and more importantly, it requires the communication, dialogue and communication of producers, distributors and consumers. In this way, we can make some beneficial exploration into the integrated marketing in China correspondingly.

# 2.2 Development History of Film Marketing Concepts 2.2.1 Methods of Production

Chinese film cultural undertaking started in the beginning of the 20<sup>th</sup> century, when the demand for film products exceeded their supply. The biggest problem is how to produce new products with the lowest production costs within the shortest span (Zhang, 2010). For a long time, Chinese film enterprises would sell whatever they produce, and film works would be popular among the audience regardless of their style and content. With the gradual enriching of film creation measures, the number of films also kept increasing. There were over a dozen new films every year in 1922 and 1923; in 1924, over 30 new films were produced; in 1925, over 90 films were produced, and in 1926, the number was over 120. "Productiveness" was the most distinctive characteristic of Chinese films in the 1920s. When film works were increasingly enriched, the promotion and distribution of products became a critical problem to the development of film cultural industry. As a spiritual and cultural product, films were no longer produced and marketed independently, instead, they centered on the audience, attached great importance to the attractiveness of themes and expressive forms in shooting the content that the audience loved to see and hear, such as early films taking ancient costume, martial arts, and gods and spirits as the theme. Later on, as the film operation mechanism becomes mature and the capital becomes profuse, various film companies set up star training mechanism one after another, lowering the costs of film production while strengthening the public appeal of box office. Thus, the orientation early film marketing concept in China moves from products to stars.

#### 2.2.2 Way of Distribution

Since the founding of new China, Chinese film cultural undertaking has been developed to a certain degree. However, in the era of planned economy, Chinese films had been adopting unitary distribution patterns of state monopoly of purchase and marketing and

"hierarchical distribution". In other words, the copyright of films produced by companies would be bought out by China Film Group Corporation before being delivered by distributing corporations of various levels and released in cinema chains. There would be no special publicity events. Since China joined the WTO in 2000, the Chinese industry of film culture has witnessed globalized market competition, and films from America, France, Japan, Italy and South Korea among other countries start to impose certain impact on the domestic film cultural industry. Domestic films start to lay greater and greater emphasis on the role of publicity. In 2002, with the initial establishment of the distribution system through cinema chain in China, the way of distribution in the film market starts to be transformed. In particular, *Hero* that was shown at the end of 2002, learned from the classic integrated marketing pattern of Hollywood, and achieved a box office revenue of 250 million yuan after localization, marking the success of reforming the way of distributing Chinese films.

#### 2.3 Theoretical Findings in Recent Years

Film Marketing bases itself on the professional knowledge of mass communication, psychology and marketing, and taking the authors' full understanding of the film industry as the framework, the book establishes a system of film marketing for readers (Wang, Ai, 2013). Both authors are practitioners of film marketing with a deep understanding of the specific needs of film marketing market, so as to realize a forceful combination of theory and practice.

Fan Liu (2014) believed in On Key Issues of Film Marketing in China that positioning and communication are critical in the operation process of film marketing, there are five dimensions, respectively, the subject, information, way, media and object of communication according to the theoretical framework of communication elements. The book also makes a systematic generalization and analysis.

"Selling Points" in Film Marketing believes that selecting, taking and producing effective selling points is the key to creating practical communication effects through marketing publicity, starting with the brand effect, popularity effect, theme, production techniques, status significance and other factors related to films that can all become forcible selling points of marketing. The paper also summarizes some successful cases of film marketing and publicity, and analyzes the selection and application of selling points (Liu, 2015).

Film marketing is a specific branch of marketing. Marketing is targeted at facing the market, therefore, the concept of film marketing is a social management process where film producers (individuals and groups) meet needs and desires through creating and exchanging products and value with film audience (groups). In a certain sense, film marketing takes films as a special product, employs certain necessary marketing measures such as advertising, public relations and promotion activities to transmit the product of films to consumers and receiving their examination and evaluation (Yu, 2015).

Film marketing has gradually grown into a necessary professional link in the industrial chain of Chinese films, not only levering the box office, but also further shaping social culture. Meanwhile, the topic discussion and deep interaction triggered by film marketing radiate to hundreds of millions of people, making it a group activity shaping modern social culture. The Chinese film market is still undergoing rapid changes such as the change of audience iteration and that of social, economic and cultural background in a broader scope. "Post-80s" and "post-90s" have already become the mainstream consumer groups in the film market. The iteration of the audience means the full iteration of the audience's consumption habits. It is anything but an accident that "Internet" and "new media" have become hot words, since these happen to be the mainstream consumption habits of the contemporary and even future audience. It is on the basis of this irresistible force that within a few years, online ticket service and online circulation have reversed the distribution pattern of Chinese film market (Ji, 2016).

#### 2.4 Limitation of Previous Theories

#### 2.4.1 Domestic Film Works Shall Find Their Own Target Positioning

Most domestic film works can't break through the narrow market, and remain unknown abroad, mainly due to their ambiguous target positioning. The following two aspects are crucial to an accurate self-positioning: First of all, Strengthening the production of film works targeted at Chinese culture. With the growing number of people going abroad, the scope of the influence exerted by overseas Chinese also becomes larger and larger. Additionally, Thailand, South Korea and Japan among other countries have always been affected by the Oriental culture, so that their citizens have all become prospective audience groups of Chinese film works. Therefore, the ideological concept of harmonious coexistence and win-win cooperation shown in Chinese film and television works will find market among these audiences. Meanwhile, as these countries have been deeply baptized by Western culture, therefore, Chinese culture will interact with Western culture in these places, and further expand to Western culture, moving Chinese culture to the world. Secondly, we should face up to the reality that it is relatively difficult for the Chinese film industry to go beyond the overseas Chinese community, and Western culture that stresses love, individuality and science, reflect on the current cultural orientation that is thematic, idealistic and excessively vulgar, highlight researches on films of inspiration, curiosity and exploration common to human nature, and blaze put a trail of development suitable for Chinese films.

## 2.4.2 Film Marketing Adds to the Audience's Cost of Seeing Films

From the perspective of domestic film marketing, one of the factors affecting the development of films is the time and energy of the audience while they are watching films. Time means the duration of the audience staying in the cinema, and energy refers to the vigor consumed by the audience when when are watching films. Both are critical to the sense of pleasure on the part of the audience when they are watching films, and the two are interrelated. Most film consumers consume too much time and energy, only to find themselves unhappy, which therefore affects the development of film marketing to a certain degree. Although the development of the Internet makes it more convenient for the consumers to buy tickets, for many film audiences in first-tier cities, the time cost of waiting before watching a film would naturally affecting the consumption desire of the audience. There would be advertising that lasts for minutes before films start, which would provoke the antipathy of the audience averse to ads. For advertisers, this not only fails to publicize, but also triggers people's aversion. Against the time background of rapid economic development in China, everyone is racing against time. Therefore, the cost of time and energy would appear more important to the audience compared with pecuniary cost.

#### 2.4.3. Market Stagnation of Products Related to Chinese Films

In the film market that is more and more competitive, the profit made by films themselves can't meet people's needs, making the way of extending products related to films appear critical. However, the augmented products of Chinese films are not so well made.

To begin with, they are poor in consistency. Many films have been shown in China, but there are only few movies that can cause a sensation in the showbiz and a great upsurge. Besides, no films can shine eternally in history, therefore, there is still inadequacy in terms of consistent marketing ability. Secondly, there is impact in the Internet era. The development of the Internet age leads to the acceleration of information dissemination, and the high-

definition and even ultra high-definition versions of resources can be found on special websites soon after the films are released, so that consumers can watch free hot films without going outdoors, causing a virtual blow to the motivation of film-industry workers. Last but not least, films are not creative enough. Most domestic films stick to the beaten track and remain short-sighted. Their marketing patterns are modular used. These non-negligible problems have indirectly hindered the extension of subsequent products related to films.

#### RESEARCH METHODOLOGY

#### 3.1 Research Setting

China.

## 3.2 Research Object

Take the marketing of Chinese film industry as the object of research.

#### 3.3 Process and Tools of Data Collection

Some relevant reports on news platforms such as newspapers and websites before the showing of popular films in China and foreign countries in recent years are collected and classified for the ease of subsequent research.

#### 3.4 Data Analysis

First of all, compared with China, foreign countries have fewer circumstances of incomplete film marketing.

As mentioned above: film marketing can be divided into three stages, respectively, film preparation, film production and film publicity. Some film marketers may neglect a certain stage and lay emphasis on the other two stages due to various reasons. In view of various data collected, some Chinese films tend to ignore and even overlook marketing during the stages of film preparation and film production, and instead invest most of their energy at the stage of film publicity. This leads to mild success of some films upon showing which are supposed to be worth watching due to the failure to do well in marketing work in advance and the inability of the audience to receive information related to the films before they are shown. The most intuitive manifestation is that a search of the key words "Chinese films of 2017" on the mainland Chinese search engine of "Baidu" shows over 2,700 results, but the public have heard about less than 1/10 of these films.

If we look abroad, such phenomena are quite rare. Basically all films would reconcile all of the three stages of preparation, production and publicity, and there are no such circumstances as the lack of a certain stage in marketing. Take *World of Warcraft*, a hot film in 2016, as an example, since its filming in 2014, the film's marketing team had kept building up the momentum of the film that hadn't been shown yet. Information related to the film was labeled in games, magazines and even on some food packages. Meanwhile, they also played interesting clips and hot-blooded trailers on various major online platforms from time to time, so as to maintain the expectation and feeling of freshness of the audience all the time. Although the box office of *World of Warcraft* was less than desirable in the end, without the correct marketing strategies that gave overall consideration, the film would possibly have lost even more.

Secondly, many Chinese films fail in marketing due to excessive marketing. The root cause of excessive marketing of Chinese films is the lack of innovative consciousness in the entire marketing process while failing to have a grasp of appropriateness, blindly believing the more publicity, the better, without taking into consideration that repeated marketing patterns and measures are in fact challenging the aesthetic fatigue of the audience. Some films would keep employing the same pattern throughout the whole marketing process, and some films even design only one publicity poster in the marketing process, so as to make it inevitable for all the marketing strategies of the films to fail. For example, although many

Chinese stars and big shots joined Cook up a Storm shown in Feb., 2017 as the first Chinese cuisine film employing 4D special effects in the Chinese film history, the fact that it lost over 100 million yuan's worth of box office revenue can't be changed. Why? It is easy to see through the collected data that Cook up a Storm started its publicity in as early as the end of 2016, and apart from common advertising through television stations and newspapers, its marketers also bought out many well-known video playing platforms in China "with great courage" for nearly three months. But they only designed one advertisement, and that was why the users of all of these platforms watched the same advertisement during that period of time. It was right for marketers of Cook up a Storm invested their major marketing efforts in the audience of the online platform, but their marketing approach of "advertisement bombardment" has long consumed up the expectation of the masses, leading to the embarrassing outcome that nobody cared about it aside from some diehard followers of the film when it was shown.

Thirdly, there is the prominent existing issue of deviation in the publicity emphasis of Chinese film marketing.

Nowadays, many Chinese films have drastically reduced the number of publicity reports related to the plot and production, replaced by numerous vulgar gossips and hypes as the main ways of publicizing the films. We can normally see a lot of sensational news related to domestic films on various online platforms before the films are shown through the cinema chain, so as to attract the attention of the masses. For example, viral spread of videos with sex scenes in films and film protagonists involved in love affairs. *Lady of the Dynasty* shown in July, 2015 made use videos with sex scenes such as "making love on horseback's" to spread itself unscrupulously through online platforms, although this move amassed a lot of popularity for the film and attained better publicity effects than before, the abominable influence that had been exerted should not be underestimated, either, since it not only polluted the General mood of the film industry, but also distorted the values of some adolescents more or less. Such problems are crying for correction.

#### RESEARCH FINDINGS

#### **4.1 Result Discussion**

Generally speaking, the content of film marketing can be divided into three modules, respectively, positioning, distribution and communication. The strategic selection of the three modules have determined the success of film marketing together.

#### 4.1.1. Film Positioning Strategies

Film positioning strategies are the first step of film marketing organization, and correct principles and methods are beneficial to the rapid and accurate positioning of film marketing strategies.

In particular, film positioning strategies should pay attention to five major principles: First of all, simple expression; secondly, stressing characteristics of different types, thirdly, conforming to the audience's experience; fourthly, differentiating from competitors; fifthly, paying attention to logical reasonableness.

The following methods can be employed in the positioning of films:

First of all, draw analogies, borrowing the audience's cognitive experience with successful films to catch their attention to the resonance of elements between the analogy and the film.

Secondly, determine the type of films regarding their positioning through extension and demonstration. Lay emphasis on the characteristics of films, so that the audience can associate them with the overall story of films and be driven to the cinema.

Thirdly, employ commonness of interest approach, start from the core interest of films, stress the emotions and significance of films, and express the value of films in terms of emotional interest.

Fourthly, classify films through typical types of films, add more detailed classification than typical films to previous films, so that films can have more unique points of attention among those of the same type.

Fifthly, use the method of occupation, distinguishing the film from other films rapidly, and occupy the mind of the audience with the unique selling points of films. The positioning of films is to combine abstraction and concreteness, mainly interpreting the concept of films, assisted by plot performance, so that the audience can establish basic cognition of films. In general, focal points of films should be created to grab the attention of the audience.

#### **4.1.2 Film Distribution Strategies**

The distribution strategies of films shall take into consideration the three elements of scheduling, copy ratio and distribution incentives.

Scheduling is a top priority in distribution strategies. First of all, determine the consumption ability of the market on the whole, and analyze the state of the audience waiting for consumption. Secondly, as showing similar films at the same time would cause scattered box office revenue, marketing teams also need to think about the number of films segmenting box office revenues within the same period and the competitiveness of the film in all films of the same type.

Copy ratio is also an important component of distribution strategies. The number of key areas where films are copied should be determined according to the box office expectation of films. With the rapid development of digital cinemas, future film copy can adjust sessions to meet the audience's requirements at any time.

Distribution incentives are mainly targeted at the terminal of films the cinema. Films need to have benign interaction with sessions, and there should be benign communication with producers over the scheduled sessions, so as to make it reciprocal to both sides.

## 4.1.3. Film Communication Strategies

Different types of films have different communication strategies. In general, communication strategies are simply made up of the three levels of communication theme, media application and communication rhythm.

Communication themes are deduction and practice of film positioning from the perspective of communication. In the communication part of films, the key of each communication should be based on "need", serving it at any time. Therefore, film positioning should center on films, and communication themes should be deduced by revolving around media needs. After all, films are mainly communicated through the media. Only when films create enough media topics, and only when the media get valuable materials will they take the initiative to pay attention to films.

Media application is choosing media mix after confirming the target public and the communication content of the audience. Media such as newspapers, magazines, TV and the network provide the audience of different cultural levels with communication channels, and the audience can find the information they want to follow according to the media they are familiar with, before determining whether the information can meet their interests, so that they can decide whether to consume in the end.

Attention must be paid to the rhythm of communication in the process of communication. The core of communication rhythm is the frequency of the core information

of films reaching consumers, and depends on the quantity, depth of core information and the time nodes of marketing targets. Communication of films should last from beginning to end systematically, instead of emphasizing both ends and neglecting the middle. Of course, time nodes should also be grasped. Communication should not be too dense, and approaches should be adjusted according to targets at different stages. Films that are comparatively more difficult to comprehend should communication with the audience on the whole, so as to benefit film communication and strike a chord with the audience. An important point about film communication is the unification of film marketing, information, style and theme. The thought of unification runs throughout the entire film communication, so as to conduct film marketing in an orderly way and reduce the occurrence of errors.

#### **4.2 Factor Analysis**

First of all, positioning strategies find out the types of audience accepting films according to the analysis and reorganization of films, and find out core information to be communicated with the target audience by integrating the selling points of films and attractive points to the audience. Information such as actors, plot, directors and producers of films alone aren't enough to attract the audience to enter the cinema, without an attractive point that is strong enough, it is hard to make the audience enter the cinema willingly. Therefore, an accurate positioning of films is the start of creating resonance with the audience, and the primary element that affects the audience's consumption. The key of positioning is simplicity, clarity, avoiding exaggeration or excessive weirdness. A study of the positioning of contemporary successful films finds that excellent positioning contains the following elements: explicit types, clear selling points, and sufficient suspense. For example, *The Message* is positioned as the first masterpiece of spy film in China, encompassing key information such as espionage war, big-budget production and forerunner. Such key information will easily be understood by the audience, enabling rapid establishment of cognitive interaction between the film and the audience.

Secondly, due to the difference between art films and commercial films in terms of creation goal, the audience groups they are targeted at will also differ. Employing distribution strategies such as adjusting schedules, number of copies and number of performances in good time through analyzing the cognitive habits, consumption characteristics and artistic accomplishments of different audience groups can maximize the information of films transmitted to corresponding audiences can fully infiltrate the films to the target audience.

Thirdly, film communication is a channel of intercourse between films and the audience. Therefore, in the fierce competition of the film market, a film should never adhere to the original, single and backward marketing communication patterns, instead, it should keep innovating marketing measures and communication strategies, and build new public opinion effects, so as to contact more consumers from more perspectives and bring high profit and added value to films.

#### **4.3 Proof of Research Results**

To begin with, with fierce market competition, positioning with reputation and brand is the way a product survives and keeps a foothold in the market. It is a way of guaranteeing box office revenues to attract the audience with famous directors, actors and producers among other highlights. For example, *Red Cliff*, a domestic film, was directed by John Woo, the most successful Chinese director in Hollywood and a master of violence aesthetics. *A Better Tomorrow, Once a Thief*, and *Mission: Impossible II* are all his representative works. Famous actors and actresses include Tony Leung, Takeshi Kaneshiro, Fengyi Zhang and Wei Zhao, etc. Such famous combinations had conspicuous effects, winning an overall box office revenue of over 300 million dollars with the first and second parts of *Red Cliff*. All similar

famous contemporary films integrate unified iconic identifications such as brands of famous directors, star effects and big-budget production, creating certain reputation and popularity for the films among the audience, so as to further enhance the loyalty of the audience, and drive the audience to enter the cinema due to brand effects. But positioning with reputation and brand doesn't necessarily equal to success, and there are failed cases as well. For example, *League of Gods* starred Jet Li, Tin Lok, Bingbing Fan, Xiaoming Huang and Tony Leung Ka Fai, etc. These actors and actresses are the most famous in China at present, and famous foreign teams joined the production team of the film, however, even such production team couldn't save the crushing defeat of the box office. Although the box office revenue of *League of Gods* was 284 million yuan, its production cost amounted to 500 million yuan. Despite the chaos and unreasonableness of the filmitself, the film oriented towards reputation and brand after being shown was no longer followed by the audience on the contrary, which shows that excellent quality of films should be the foundation for films with whatever reputation and brands.

Secondly, as far as the commercial quality of films is concerned, box office is the ultimate goal of distribution, while scheduling is the key element determining the success of box office of the films. There are several elements in selecting schedules: The first element is competitiveness, depending on the quantity and type of films scheduled to be shown in the same period. The second element is the base of consumption. Blockbusters converge in the summer vacation and Spring Festival, and the large consumption base results in high revenue of box office during this period. And the third element is the fitness of the period scheduled for the films. During the summer vacation, there should be more films suitable for students to watch, while films suitable for families should be arranged during the Spring Festival. All filmmakers are ready to gain the initiative during the schedule of the theater, sometimes, there are even giants of box office during the scheduled period. If domestic films don't avoid these issues, they may face the danger of being devoured. Of course, the premise remains guaranteed quality of films, so as to win the support of the audience.

Thirdly, in the current age of information explosion, information is spread rapidly. Filmmakers make full use of various advantages of the media to create topics so as to build up momentum for their films. They would consider factors such as the most effective advertising materials, the most easily erupted topics in reputation communication and the most valuable channel and media platform for publicity. Basically, domestic films all adopt such marketing approaches that are most popular at present. They have two common grounds: high publicity cost and the good planning and coherence of publicity. Take the way The Left Ear publicized itself and built up momentum as an example. First of all, the film was directed by Alec Su, a veteran idol. The Return of Pearl starring Alec Su as the protagonist accompanies the young generation over one summer vacation after another. His influence is indisputable. Besides, the topic brought about by the reunion of the cast of the TV drama after 18 years has prepared abundant materials for the media. In the end, the entertaining topic of the appointment made by Ruby Lin and Alec Su at 40 years old also promoted the media's attention to The Left Ear. Additionally, the development of films also brings about the advance of film technologies. Nowadays, films are affecting the visual, auditory, tactile, smelling and even taste senses of the audience. Traditional Chinese films are still covering an important place, and add new technologies to the construction of cinemas to keep up with the times. In the upcoming years, the number of digital cinemas established nationwide is consistently increasing, such as 3D, 4D, 5D and IMAX cinemas. The application of VR technology to films further launches a new march towards an era of film technology. More diversified ways of communication provide Chinese films with material guarantee, and the more considerable cinema service that comes along also enhances the quality of entertaining enjoyment of the audience.

#### 4.4 Discussion

The paper agrees to the research conclusions drawn previously, and supplements the viewpoint of Guangying Liu and Li Yu, et al. that to generate realistic communication effects with the input of marketing publicity, the key lies in selecting, using and producing effective selling points of films, starting from forceful marketing selling points such as brand effect, reputation effect, theme, production technology, status and significance among other factors related to films.

This paper studies and discusses the marketing, distribution and showing of Chinese films. Films are a special product that bears not only commercial value, but also artistic value. Given the increasingly dramatic competition in the film market, both commercial and artistic value of films should be realized, so as to be rewarded with both an excellent reputation and admirable box office revenue. Many popular and special problems that exist are found in this process, and corresponding strategies are proposed. The paper lists some examples of Chinese films for analysis on relevant problems, proposes solutions corresponding to different problems, and concludes that it is animperativeto improve Chinese films.

The specific content of optimization plan in this paper is listed in the following part.

4.4.1 Improve the Convenience of Film Consumption

The convenience of watching films has now become an important element hindering the development of film marketing. If it becomes convenient to watch films now, the film and the audience will be drawn close to each other in film marketing, so that more of the audience will choose film consumption. Therefore, the following measures shall be considered: shortening the distance between the cinema and the residential area; simplifying the procedures of online ticket buying; enriching the payment of films and relevant consumption; expanding the communication channels of information on films; and diversifying the form of films.

4.4.2 Improve the Creation Level of Films Themselves

High box office revenue is not the sole element that enables films to stand the test of the market. The content of films should also bear inheriting effect, and play an active role in the film industry.

4.4.3 Optimize the Measures of Film Marketing and Maintaining the Artistry of Commercials Consumption desires prompt the consumption of consumers, and the marketing link plays an irreplaceable role in the process of provoking the desires of consumers. In recent years, Chinese films develop rapidly, but film marketing lags behind, and utilizing negative marketing becomes common in the market. Films are special, incorporating commercial and social value. Therefore, film marketing should try its best to avoid the utilization of negative marketing; instead, positive marketing should be employed to attract the audience. Take the film Duckweed as an example, compared with previous nostalgic youth films, the film directed by Han Han, who was also an author, attracted the audience born in the 1970s, 1980s and 1990s to enter the cinema with its sky-high reputation when it had just been put on the screen, simply in the name of "a passionate comedy" about "kinship", "brotherhood", and "style of town".

4.4.4 Grasp the Realistic and Potential Needs of the Audience Accurately

Excellent film marketing approaches should have a correct grasp of the consumption requirements of the audience, and find specific ways to balance the film market. Undoubtedly, human beings have desires and needs, and it is natural for happy ones to want to see happy films, while lovelorn ones want to see films, and the like. Films should grasp the needs and feelings of the audience accurately.

4.4.5 Full Development of the Market of Products Related to Films

Extension of post-film products not only include synonymous novels, playing right and DVDs, we can also make use of the after-effects of film content with high

professionalism and quality, release serial films and even build parks and amusement parks taking film as the theme. Meanwhile, spin-off products of film can be further launched in the market, including corresponding music albums, online games and mobile games.

#### **CONCLUSION**

#### **5.1 Summary**

Problems with the marketing of Chinese film industry have a long history to date back to. This is related to the previous national condition and state policies of China and the development of films to a certain extent. To truly address the problems with Chinese film marketing, we should start from the script of film itself, marketing strategies and film marketing staff among other aspects.

Script is the key to the completeness of film marketing. After all, plot is the most attractive part of a film. Therefore, excellent film scripts can provide more publicity points for marketing teams, so as to attract a larger audience to maintain their expectation for the films. After watching the films, the deep impression made by the excellent plot on the audience can further stimulate their consumption of the spin-off products of films, so as to make the marketing process of the film more complete on the whole.

Marketing strategies guide the entire marketing process, and plays an important guiding role in the process. Where is the emphasis of film marketing? Should marketing be mainly about the plot or the cast? What level should the hype attain? These are all determined by marketing strategies. If the process of film marketing is compared to a sailing ship, then marketing strategies are the barometer of the ship: correct strategies can guide the ships to ride the wind and waves, while wrong ones will ruin the ship and kill everyone on board.

The way film marketers innovate marketing approaches is the key of attaining the expected marketing effect. Film marketers are the executors of the entire marketing process. The marketing effects they decide upon directly affects the marketing effects of films. It is more and more difficult for traditional marketing approaches to attract people's attention, and how to innovate marketing approaches to gain more profit is a pressing issue to be addressed by Chinese film marketers.

#### **5.2** Limitation of Research

This research has limitation in three aspects:

First of all, this research refers to the Hollywood style of film marketing inAmerica as a comparison for Chinese film industry, and outstanding films and marketing strategies of many other countries and regions haven't been included in this research, making it limited to a certain degree.

Secondly, as most of the information and data collected for this research come from multiple channels and contain partially objective consciousness, the conclusion drawn by quoting them as reference is not thorough, and still suffers from defects.

Last but not least, although this paper has analyzed and studied the marketing patterns and status-quo of the Chinese film industry, restricted by personal theoretical level and knowledge storage, the depth, breadth and pertinence of this research are to be strengthened, and part of it can be more carefully and completely analyzed.

#### **5.3** Target Group and Beneficiaries of the Research

Findings of this research can offer certain theoretical assistance to staff engaged in the study of marketing in the Chinese film industry, enable them to accomplish research goals more efficiently, so as to assist the sound development of marketing patterns in the Chinese film industry on one hand, and on the other hand, they can offer train of thoughts and enlightenment to the marketing teams of Chinese films, and help more and more Chinese

films to become classics "with high box office revenue and excellent quality", so that more Chinese films can go beyond China and go global, so that Chinese culture and diverse culture of the world can blend with and add radiance and beauty to each other.

### **5.4 Suggestions**

To get out of its trouble, Chinese film marketing should learn from excellent marketing patterns in the West. But considering the national condition, policies and cultural conflicts among other factors, this process can't be accomplished at one stroke. Therefore, Chinese film marketers can consider learning from the film marketing patterns of other countries that have gone through this process.

On the whole, the development of Korean film industry resembles the Chinese film industry a lot. At the beginning, films existed solely as a tool of propaganda by the government, meeting the needs of the masses while catering to the wish of the government, rising according to the needs of the times. But with the development of the times, people started to have different needs, there were also different levels of changes in its policies and state condition, and the film industry in South Korea was thus developed. Due to the exchange between South Korea and Western countries in different areas at the beginning of its Civil War with North Korea, and South Korea made great efforts to learn and promote Western culture after the war, the film marketing patterns in South Korea also started to look to the West naturally. Up to now, South Korean films have long finished the process of learning from the film marketing patterns of Western countries, and have formed their characteristics.

Therefore, given the pressing need of Chinese film marketing to learn from excellent film marketing patterns in the West and the failure to do so once and for all, the marketing pattern of South Korean films that belong to the Oriental Cultural Circle like Chinese films and has finished its transformation by combining its own characteristics, is arguably an ideal object for Chinese film marketers to learn from.

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# THE DEVELOPMENT OF TRADITIONAL CROSSTALK IN THE NEW MEDIA ENVIRONMENT

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#### **ABSTRACT**

With the further development of new media, more and more forms of online entertainment appear. Crosstalk, as one of the traditional folk arts, is facing many difficulties in the development process. This paper studies the current development and dissemination of cross talk, focusing on the development prospects of cross talk in the new media environment. The development direction of cross talk in the new media environment is put forward, and the problems encountered in the current stage and the obstacles encountered in the new media environment are analyzed. In the course of its development, cross talk, as a traditional form of folk art with historical and cultural traditions, puts forward feasible suggestions on how to carry out the inheritance and development of traditional culture and how to develop cross talk in the new media environment.

Keywords: Crosstalk, New Media, Traditional Culture, Audience Needs.

#### INTRODUCTION

Crosstalk is a long-standing form of Quyi culture in China. It accompanies the spread of the Chinese people's lives. At present, due to the rapid development of the Internet, people have more entertainment activities to enrich their spare lives, and the development of crosstalk has been impacted to a certain extent. So, is there any future for the crosstalk industry, and how it will find opportunities for survival in the new media, this article will be studied

#### LITERATURE REVIEW

#### 2.1 Underpinning Theories: Literature Review

Because this research is difficult to describe with a model, there is no relevant theory to support. So the professional knowledge involved in this article comes from a summary of authoritative literature. In terms of research direction and content, it is obtained by collating authoritative literature, news reports and video materials.

#### 2.2 Literature review and research background

Crosstalk originated in the Qing Dynasty. The term "crosstalk" first appeared in Zhai Hao's "Popular Edition" during the Qianlong period.

The founder of folk comic dialogue is Zhang Sanlu. According to the "Jianghu Cong Tan", during the Daoguang Xianfeng period, Zhang Sanlu called his performance a crosstalk.

At that time, Zhang Sanlu's performance had already begun to have four major contents of "speaking, learning and singing".

The development of crosstalk in modern times has gone through four stages. The 1920s and 1930s were a stage of development. In Beijing and Tianjin, crosstalk music began to develop. Under the leadership of Zhang Shouchen, the fifth-generation crosstalk "master", many crosstalk masters such as Ma Sanli, Chang Baokun, and Liu Baorui emerged. The development of crosstalk also entered a prosperous stage through the broadcasting era. In the 1950s and 1960s, due to the need for cultural purification, crosstalk artists were not connected, and the development of crosstalk entered a low point.

The rise of TV media has given the opportunity for crosstalk to "return to life". Among the many excellent crosstalk artists represented by Ma Ji, they have inherited and developed the style of Hou Pai and made crosstalk enter a stage of revival.

Unlike the form of television media at the end of the 20th century, the number and types of television programs are now in full bloom. The major television stations have reprogrammed, and comedy variety shows have continuously emerged in various forms. Such as the form of professional comedians performing competitions, the form of cross-border comedy performances of other film and television industry practitioners, and the form of single genre performances performing competitions. These various programs provide a huge platform for crosstalk performers, making Crosstalk came into the eyes of more people.

Crosstalk took this opportunity to spread a lot. Take the "Comedy Comedian", which has been widely followed, as an example. In the five-season program, many comic artists have been introduced to bring them into the eyes of more people.

In the Internet age, various industries are seeking to connect with new media, and crosstalk is no exception. There are two main forms of crosstalk development in the current network. First, the video platform cooperates with various TV stations to put TV programs on the network video platform for simultaneous playback, as much as possible to expand the scope of communication and extend the audience's acceptance.

The second is that the comic dialogue troupe cooperates with the video platform to spread the works and performances of their own creation on the video platform

#### RESEARCH METHODOLOGY

This chapter discusses the research methods adopted in the research process. The research methods can be found in the following chapters.

#### 3.1 Research design

This chapter uses a quantitative analysis research method to try to verify the possibility of the development of crosstalk in the new media environment through the changes in the number of crosstalk works in TV programs and the increase in the attention of crosstalk programs in online platforms. By comparing the attention degree of crosstalk programs and other variety shows in the network, the obstacles encountered in the development of crosstalk are found, and solutions are found.

#### 3.2 Statistics of the number of crosstalk works in the "Happy Comedy Man" program

Years	Crosstalk performer	Number of crosstalk works
2015	Jing Li	4
	Yunjin Cao	3
	Xiaopan Gao, Xianchao	4

Years	Crosstalk performer	Number of crosstalk works	
2016	Yunpeng Yue, Yue Sun	10	
2017	Qilin Guo, Hexiang Yan 12		
2018	Qingping Fang	4	
	Yunpeng Yue, Yue Sun	2	
	Xin Lu、Yuhao Zhang	8	
	Yunlei Zhang, Jiulang	6	
	Yang		
	Yang Guo, Liang Guo	1	
2019	Yunlei Zhang, Jiulang	4	
	Yang		
	Xin lu, Yuhao Zhang	5	
	Helun Zhang, Heyan Lang	6	
	Fei Jin, Xi Chen	2	
	Qingping Fang	1	
2020	Fei Jin、Xi Chen	3	
	Hetang Meng, Jiuliang	3	
	Zhou		
	Shaobing ,Heyang Cao	3	
Total number of crosstalk		81	
works			

In current China, "Happy Comedy Man" is one of the most talked about comedy shows. Many cross talk artists were introduced in the six-season program, which brought them into the eyes of more people. These crosstalk artists lived up to expectations and created 81 excellent crosstalk works, arousing the audience's love for crosstalk, inspiring the enthusiasm of crosstalk lovers, and setting off a crosstalk boom

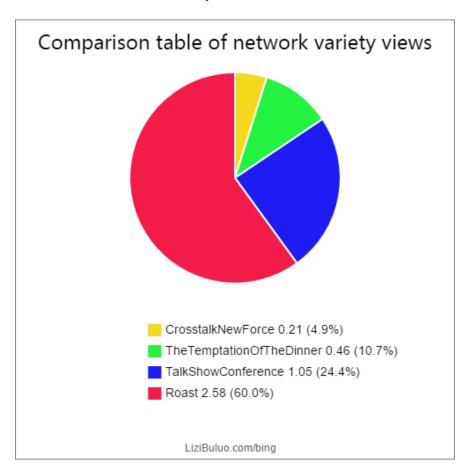
#### 3.3 Statistic Table of Talk Show Type Network Variety Shows

Video platform	Talk show	
Tencent Video	"Roast"	
	"Talk Show Conference"	
	"The Temptation of the Dinner"	
iQIYI	"Offend Family"	
	"Super Story Club"	
	"Xiao Song Talk"	
YouKu	"Mars Intelligence Bureau"	
	"Toast and Drink"	
	"Saturday Night Live"	

In recent years, online platforms have created variety shows, especially talk show type online variety shows, which have a huge market in China. The same form of performance completed through language, the advantages of self-made talk show nets are obvious: (1) The structure of the content is variable, and the performers are not required to have solid basic skills. (2) In the new media era where traffic is the mainstay, the guests of the talk show are all entertainers with large traffic or a certain fan base on the Internet, which is more likely to attract the attention of the audience. (3) Strong topic manufacturing ability, high topic

popularity, fast spread and wide audience, can react to the program, increase the popularity of the program, and form a cyclical development model.

## 3.4 Comparison chart of network variety views



Unit:100 million times

Here, the data of Tencent Video is used uniformly. In addition to "Crosstalk has a newcomer", all are talk show type variety shows. According to the data comparison, it can be found that "Crosstalk has a newcomer" has more than 20 million views. This is a very optimistic number, which proves that the revival of the traditional art of crosstalk is ongoing, and there are also many viewers who are still paying attention to crosstalk.

However, compared with the other three talk show, cross talk is still too little attention. In particular, "Roast", with more than 250 million views, announced the huge potential and prospects of the online video market to people.

#### **RESULTS AND FINDINGS**

This section discusses the results and findings of the research.

#### 4.1. The development prospect of crosstalk in the new media environment is bright

4.1.1 Diversity and inclusiveness of online media

There are various forms of online media, and the content is fresh and changeable. And the network is extremely inclusive, and comic artists can freely create and spread comic works in the cyber world. There is a huge base of Chinese netizens, and there are not many online audiences who like crosstalk. As long as the continuous output of new works is guaranteed, someone will pay attention, and crosstalk can be better inherited on the network.

4.1.2 The broadcast of various variety shows guarantees the income of comic artists

This is a virtuous circle. Variety shows create an audience base; good crosstalk works and excellent crosstalk actors help the program increase ratings; the audience is happy, and the sponsors are more willing to increase sponsorship. As long as good operations are guaranteed, those who make money are more profitable, and those who are happy are happier.

## 4.1.3 Improvement of public copyright awareness and legal protection

When the Internet rose, people were used to finding free music and watching free movies on the Internet. As a result, many literary and art workers have put in efforts, but cannot get the rewards they deserve. Now everyone 's copyright awareness is increasing, the audience is willing to pay for excellent cultural products, and the law is also protecting the creator 's right to legal income. As long as the work is excellent, someone will pay for it. The public's awareness of rights protection and legal protection not only bring benefits to the comic artists, but also create a good creative environment for all producers of cultural products.

#### 4.2 Dilemma in the development of crosstalk.

## 4.2.1 The impact of network variety

The emergence of self-made talk shows has greatly impacted the spread of comedy variety on the Internet platform, and also squeezed the space for the development of crosstalk to a certain extent. Many people even think that talk shows are cross talk. Reality show variety shows have a greater impact on crosstalk. Compared with traffic stars, the public recognition of crosstalk is far from enough. The Internet has brought opportunities, attention, and greater challenges to crosstalk.

## 4.2.2 The quality of crosstalk works is good or bad

In any industry, product quality is the key to audience recognition. The other major issue facing the comic industry is uneven quality. There are three main reasons for this problem. First, no one is interested in the study of crosstalk theory. The artistic value of crosstalk is very high. It has learned a lot of excellent traditional Chinese culture during the development process through history, and formed a complete performance system of "speaking, learning, teasing and singing". Among them, "singing" condenses the essence of traditional music. However, the theoretical research of crosstalk is almost blank. After the older generation of crosstalk artists withdrew from the stage, the newcomers put more energy on "speaking" and "teasing", and the basic skills are only a form of learning, but no Pay attention to the artistic value of crosstalk.

The second is that crosstalk literature creations are mostly indiscriminate. Some crosstalk practitioners have poor literature training and low artistic aesthetic ability. They can easily write simple jokes and gimmicks. They cannot write fine works, and they cannot guarantee the quality of the script. Without good scripts, even the best actors can't perform good effects, and they can't perform works that are impressive to the audience.

The third is the lack of professional capabilities of crosstalk performers. Some people think that a joke is just a crosstalk, so amateur ticket friends, or even those who are stumbling and slurred, have joined the industry of crosstalk. Hobby comic dialogue is a good thing for its development, but amateurs hope that through this business to support their families is really difficult. Some people think that the formula is omnipotent and created the "formula crosstalk", but the work has no highlights, rhythm is not logical, and the pieces are pieced together. This is disrespect for the traditional art of crosstalk and disrespect for the audience.

The above-mentioned problems have led to the phenomenon that the quality of crosstalk works is generally average or even incomprehensible. Artists who can write and perform fine works "have meals" naturally. However, after the crosstalk works that do not meet the general

standards occupy the half of the crosstalk market, the audience's enthusiasm for crosstalk directly decreases, which also affects the healthy development of the entire crosstalk industry.

#### CONCLUSION AND DISCUSSIONS

Suggestions on the development of crosstalk in the new media environment.

## 5.1 Expand the crosstalk audience with the help of short video platforms

Short video on mobile phones began to rise in 2016, and began to grow fiercely in 2017. The market size reached 5.73 billion, an increase of 183.9% year-on-year. The increase in user scale and investment in advertising led to a substantial increase in the market size. 35.68 billion, user growth brought by traffic monetization has the opportunity to promote content monetization.

This provides a channel for the development of crosstalk in new media. Although it is not possible to present the complete crosstalk work in a short video content due to the limitation of time, one minute is enough to shake out the "baggage" of one or two crosstalks, or sing a short traditional song. The short video market has a large scale and a wide audience. As long as the quality of the work is guaranteed and the spread is increased, it is believed that potential crosstalk audiences will be tapped, so that crosstalk will enter the sight of more young people, increase the influence of crosstalk among young audiences, and promote The development of the crosstalk industry.

### 5.2 Improve crosstalk actors' literacy and create high-quality works

In the Internet age, it is particularly important for practitioners in the communications industry to improve their personal qualities and improve the quality of their works. As a cross talk artist, it is even more necessary to improve their professional qualities and create high-quality works, rather than pleasing the audience with randomly fabricated pieces.

It is not difficult to improve professionalism. Professional cross talk artists receive elementary education from the elementary school, as long as they work hard and work hard, the problem is not big. The difficulty is how to improve the quality of the work. With sufficient literary skills, solid basic skills, and years of performance experience, in this era of information everywhere, find suitable materials to create a high-quality crosstalk work, I believe most crosstalk artists do get.

As a form of traditional Chinese folk art, crosstalk has strong vitality. The Chinese nation is also an extremely inclusive nation, and believes that the new online media can become a promoter of the continued development of crosstalk.

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## DEVELOPMENT OF CHINA'S E-GOVERNMENT APPAND CLOUD TECHNOLOGY APPLICATIONS

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#### **ABSTRACT**

In recent years, with the improvement of science and technology, the development speed of the information age is getting faster and faster. Words related to the information age, such as smart government, smart city, etc.appear in people's vision. E-government is an important symbol of office modernization at the same time. It has always been one of the means and ways for governments and enterprises to improve work efficiency. With the development of science and technology and people's efforts in the information age, the trend of combining e-government and cloud computing technology is becoming more and more obvious, and this more modern office has shifted from theory to practice. The combination of cloud technology and e-government is the new technology foundation for the government to improve efficiency and enhance the relationship between the government and the people. This article is based on cloud technology-based government services and aims at the combination of cloud technology and e-government apps. This article discusses the convenience and feasibility that e-government apps will bring to people. For the current "information islands" and more and more "zombie" apps, cloud technology is used to improve efficiency and strengthen management. This paper first discusses the background, source, purpose, and significance of the topic. Based on the analysis of the domestic and foreign research status, it proposes an e-commerce APP and cloud, that is to say, this paper proposes the concept of the cloud combined with e-government services. Secondly, the necessity and feasibility of the e-government service platform are discussed, and the egovernment service platform is discussed in this paper. The idea and process of e-commerce construction are elaborated. Based on the guiding ideology, an e-government service based on cloud computing technology is designed Platform and its construction process model. While studying the external guarantee strategy of e-government based on cloud computing, improvement measures are put forward.

**Keywords:** e-government cloud APP construction mode

## **Background of the study:**

With the development of the Internet around the world, the disclosure and release of government information and service providers around the world have bribed a new transformation and development. At this time, e-government has emerged, and it has become a government office and public information disclosure and service in a short time. Main way. E-government can effectively improve the quality of government services and improve the supply of convenient services. Popularizing e-government has become an important measure for all countries in the world to promote national informatization and promote national economic and social development. Internationally, it is generally believed that research related to e-government appeared in the mid to late 1990s. From the development process of e-

government, countries around the world have basically experienced the following stages, namely the initial stage, online publication of government information; one-way interaction stage, mainly government initiative; two-way interaction stage, inter-government-civilian communication; online business management stage.

As early as the 1980s, the Chinese government had realized that the information technology revolution would have a huge impact on society and a huge challenge to the world. Therefore, the Chinese government has begun to try to use the latest computer technology to complete some basic office activities, this is what Zhoumen usually calls office automation projects. In 1993, China began to implement the "Three Gold" project, the fundamental purpose of which is to improve the application of information technology in the Chinese government, seize the tide of the global information technology revolution, and focus on building information infrastructure to facilitate the data communication and transmission of important department houses Information, building information "highway". In 1998, the world's Internet technology grew at a decisive pace, and China's communications infrastructure was continuously improved. Based on the above conditions, the government made a plan for the government to go online. The rapid development of China's e-government began from this, and it gradually entered the public Has become the subject of social concern. In 2002, the Fifth Plenary Session of the Ninth Central Committee focused on clarifying the construction of China's e-government. Premier Zhu Mingji pointed out: China's e-government is e-government with Chinese characteristics. The process of emancipating the mind and studying hard. On New Year's Day in 2006, the Chinese government opened the first official website-the Chinese government. After the opening of the website, the website is a comprehensive platform where the government can publish government information and services. In 2011, after carrying out the "Twelfth Five-Year" e-government planning work in many places, Weibo began to gradually become a new channel for government information release and communication with the people.

In the large information environment, mobile communication technology has grown rapidly, and it has exerted a great influence on all aspects of the public with the characteristics of its instantaneousness, convenience of use, the interaction between the two sides and the accompanying nature of time and space. The so-called service-oriented government is based on the people-oriented guiding ideology to provide better services for the public, and respects the needs and thinking of citizens, the purpose is to provide modern services to society, the main task is to perform social public service functions. The government app program came into being. The government application APP is very meaningful and meets the needs of public services and the government's need to build a service-oriented government. Improving the management and service of government app through cloud technology is the only way for government service innovation.

In China, government apps are still needed in different urban areas. Government apps can effectively improve the efficiency of the government and the public. In today's era of accelerated life rhythm in China, people's requirements for efficiency are increasingly high, simple, and quickly become The key factor for the public to adapt to a fast-paced society. Therefore, this study aims to establish a government framework.

At present, in view of the inconvenience of government affairs, as well as the problems of "zombieization" and unintelligence in existing government affairs apps, how to develop a government affairs app that realizes the future smart city has become the top priority of current figures. This article explains It shows how the government affairs app brings convenience to citizens and how to use cloud technology to solve the problems and solutions of current government affairs services.

From the perspective of international development, since the 1990s, the construction of government apps in major countries such as Europe and the United States has been mainly

established between the government and the public (GC). It is committed to the construction of networks, systems, information channels, and online services for the public. Provide better quality, more convenient and more diversified content services; between the government and enterprises (GB), commit to e-commerce practice, create a reasonable, safe and orderly e-commerce environment, and promote the government and enterprises Between the government and the government (GG), committed to the automation of government offices, promoted information interaction, information sharing and resource integration, and fully improved administrative efficiency.

From the perspective of the development of e-government apps in Europe and other countries, e-government in these countries generally follows the following guiding principles: develop and provide services around the choices and needs of the people, establish a government-centred on the people; improve the government and its services Accessibility and accessibility; ensure the non-exclusive nature of government information and services, eliminate digital isolation; focus on the effective use of information and improve information utilization.

In China, the government affairs app is mainly to provide convenient services for enterprises and the masses, to play the role of the public entrance, public channel, and public support for the country's government affairs service, and to use the online app to provide support for the country's "one network communication office". The Chinese government service platform has multiple service channels for mobile clients, PCs, WeChat, and Alipay applets, allowing users to easily access services. The platform brings together 46 State Council departments, 31 provinces (autonomous regions, municipalities directly under the Central Government) and the Xinjiang Construction Corps, with a total of 2,368,135 implementation lists and 908 convenient services.

The government app platform is designed to facilitate the people and benefit the people. However, the connection between this design and the user is intermittent. When the user needs it, they will find it on the Internet aimlessly. After searching, they will enter the process and lose contact with the website after completion. The future smart city and smart life will inevitably require residents to participate for a long time, and it will add operations that are closely related to people's lives. Government services are not charged, but related services that support government services can be provided by commercial service providers., Such as taking ID photos, express delivery, agency, etc. In the future, government services and business services will inevitably be closely linked. People need services, not artificial government services or business services. For government affairs or business, the classification of services is meaningless to ordinary people. For the operation subject, it is imperative to introduce users, and then keep in touch, and then make profits in the operational activities of the smart city (finance and assisting enterprise operations). Aicheng.com's current business model.

Users have the concept of shopping for products. If you look around, you may buy and use them. How are many services presented to users? Especially for government affairs services, users will not just go shopping. On the one hand, ordinary users have very little understanding of the need to deal with government departments, and they do not know how to deal with it, especially the younger generation. Many things are helped by the previous generation. So after the younger generation becomes the mainstay, how to deal with the social service affairs that have to be handled? On the other hand, the new policy needs to be publicized and communicated. What kind of platform will be suitable for such a demand?

One of the main goals of the new government service app is how to establish long-term contact with users and keep in touch to be notified promptly; it is necessary to work hard on the intelligent recommendation of services. In social life, the government and related organizations are more than users themselves in many ways. To understand what users should do, each citizen's service needs are different. It is the direction of smart services to make

intelligent recommendations based on the user's real-time situation. For example, when a new life is born, the user is intelligently reminded to apply for a birth medical certificate, maternity allowance, etc., instead of letting the user actively inquire and explore.

This article describes the current social development and the background of the times, analyzes the successful cases of domestic and foreign government app applications and improves the government app through basic cloud technologies, and analyzes the development status of China's government app, and combines the current world status for future government affairs. The analysis of the app draws the strategy. This article mainly explains the following five points.

- 1. What applications are currently used by the government to promote public interest? characteristics, concepts and functions of government affairs, analyze the demand and development of public service and categories and explain the significance of government app in public service for social development.
- 2. The case describes the advantages and disadvantages of the state of government affairs applications, introduces the current development of government affairs applications, and the current advantages and disadvantages of governments and people (GC), governments and enterprises (GB), and governments and governments (GG). It introduces the current problems of the Chinese government affairs application and the problems it will face.
- 3. The application strategy of government affairs app in Chinese public service mainly elaborates the development strategy of government affairs app at home and abroad, tells how to carry out reasonable team management, improve the good experience for users, aim at the shortcomings of the current offline and explain the app The advantages.
- 4. The combination of cloud technology and e-government mainly introduces how to use the basic cloud technology to improve the government app. Through the basic cloud technology, the app can be made more convenient and fast, and cloud technology will also strengthen the function of the app and make the app more Good service users.
- 5. Analysis of the market environment of the e-government app This article combines the current market goals and data statistics to make a macro analysis of the app's market development and analyzes the current market situation of the government app based on swot.

When applying the government affairs app between governments, the most important thing is to strengthen management and security. The initial purpose of creating the government affairs app is to facilitate the management, make the work of various departments communicate, and make the management staff more convenient and simplified. Units have more streamlined work, such as the recent sudden attack of new coronary pneumonia (COVID-19), which has prevented the daily lives of people from all countries and has greatly reduced the office efficiency of government departments in personnel management. Government departments can use the government affairs app to work at home without leaving home, such as video conferencing, personnel management, assignment tasks, and related departments can upload the organized documents to the cloud, and then be inspected by superior leaders to issue To each staff to assign tasks to each department more reasonably.

The e-government cloud app is an infrastructure platform for government departments. Government applications will be migrated to the platform and shared with various government agencies to improve their service capabilities and efficiency. In short, government cloud applications are mainly concentrated in the field of e-government, namely e-government cloud. E-government systems also have special requirements for the security of private clouds.

#### LITERATURE REVIEW

### 2. 1 Current case analysis of COVID-19 government affairs app

2020 is an unstable year when people are still immersed in the moment of welcoming the New Year, January 20 is only 5 days away from the Chinese New Year, a virus called COVID-19 broke out in Wuhan, China, and eventually the Wuhan government The closure measures were taken, and the city's subways and buses were suspended on the 23rd. But this time the virus has a long incubation period. At this time, it is the time for China to return home for the Spring Festival. The epidemic broke out with the arrival of China's New Year. Immediately following the closure of various colleges, units, and various individual industries, the emergence of "smart cities" is needed to help the public, transportation, education, catering and other mobile smart apps in various industries play a role.

The outbreak of COVID-19 is extremely contagious and has a long incubation period. Therefore, since the Chinese government announced the closure of the city, it will go to the provincial level, the municipal level, and the county level. The local government officials will be the leaders of the local government. Under the leadership of the government, "close the city and cut off the road", the import and export of each place are strictly controlled, and at the same time, measures are taken against all walks of life. Government departments at all levels, transportation, and various types of individual businesses are closed. Blocking communities and delaying the start date of various colleges and universities have seriously affected China's economic development.

For foreign countries, the European region is also faced with the above problems, and the extension of major sports events is suspended. For example, in the football world, all the five major European leagues currently in progress are suspended, and the ongoing European Champions Cup knockout stage is also suspended. The club currently has no ticket income, broadcast fees, and sponsor investment, etc., which seriously affects the economic chain of the clubs. In order to prevent economic collapse, the weekly salary of the club players has been reduced by 40-50%. The stock market of big clubs has fallen sharply, causing the economy of various cities to fall sharply. As of the close on March 11, 2020, the current Premier League giant Manchester United has fallen by more than 22% from last year 's closing price of US \$ 19.93 per share to US \$ 15.42 [British media "Guardian"], as the most severely affected Italy in Europe The share price of the giant Juventus has dropped by nearly half from 1.247 euros per share to 0.664 euros [Marco Bellinazzo, co-founder of the Italian media "24 Hours Sun"], reflecting investors 'The pessimistic outlook for the global economy. As a city with football as an important economic source, the impact on the government's economy is a painful blow.

Looking back at China's education industry as an example, the college entrance examination is a turning point for each student's life, which is of great significance to each student. China's college entrance examination time is usually June 7th and 8th every year, and some provinces will continue to 9th. Affected by the epidemic, China currently attaches great importance to education, and most colleges and universities have adopted online courses to solve the students' preparation for the "battle" facing the college entrance examination as the primary method.

Affected by the epidemic, all kinds of unreliable trail news are constantly emerging. All kinds of daily necessities and food are being driven up prices. The people are panicking and frantically buying all kinds of daily necessities and food. The price before the new coronary pneumonia epidemic was only 0.16 yuan to 0.28 yuan each. After the outbreak, Cao Mou sold the masks to all parts of the country through offline sales and WeChat platforms. In

terms of sales price, Cao Mou made a huge profit and raised the price day by day, raising the selling price to 10 yuan per piece within a few days. This is a serious violation of the law, and the police are currently arrested. Not only the problem of masks, in a supermarket, the cabbage with the original price of 0.8 yuan per catty was actually sold for 50 yuan, which seriously affected the market economy. These criminals have been severely punished. The distance to the people is closer. At the very least, the people will not listen to unrealistic trail news, and they will snap up an ordinary cabbage with a price of 50 yuan per piece.

## 2.2 Advantages of the government affairs app in emergency situations

At the government level, the epidemic was very contagious due to human-to-human transmission. As a result, the civil aviation department was completely shut down for safety. Government leaders in various regions can use the e-government app to solve various problems. It is possible to directly carry out video conference assignment tasks and communication from the central leadership and the provincial and municipal leaders.

During the epidemic period, all government departments in all regions have fully invested in the front-line battle against the epidemic. The temperature of each intersection is measured, etc. At this time, the government affairs app can use cloud storage to achieve health punching, and collect health and condition of personnel easily and quickly Digitization and online management, using cloud storage to collect the health information of various government personnel, and then using cloud computing to obtain efficient statistical data, and upload it to the upper government database to ensure the life and health of each government personnel.

In terms of education, the impact of the epidemic on the students who are about to take the college entrance examination is huge. The college entrance examination is a turning point in life. At present, the effective measures taken in China are online courses. As of March 2020, it has only downloaded 1,895,398 in the App Store, which has basically become the key online course software of various colleges. This also shows that the government affairs app is not only for government departments, but also includes remote conference functions. It is an indispensable part of the "smart city" that we will realize in education and even in the future. In summary, the current government affairs app will have a huge impact on the future, so for the current "zombie" and other problems, using cloud technology to solve the current "zombie" and a smart government app is the realization of the future smart city The important link, whether it is government departments, medical treatment, transportation, education, etc., and even in emergencies, the government affairs app plays a vital role.

#### 2.3 Research gap

Based on the customer value theory, this research studies the influencing factors of users' intention to use mobile government app, and draws relevant conclusions and policy recommendations. However, due to the limited research resources and time, and the limitations of the researcher's own level, this research has many deficiencies and limitations, which need to be further explored in future research.

The sample selection of the data in this study failed to achieve complete random sampling, mostly civil servants and student groups. Therefore, the results of this study are difficult to guarantee external validity.

This article provides a general description of the occupational aspects of the population. Due to resource constraints, it can only provide the general occupation of the investigator, and it is not possible to do detailed research on the detailed departments. This study only selects the regulatory factors that influence the use intention of the mobile government app, and does not select the intermediary variables for measurement research. In the follow-up research, some intermediary variable intermediary research processes can

be explored to explore the role of intermediation under different regulatory variables.

### 2.4 Summary of Literature Review

Cloud computing technology will have a profound impact on government computer room construction, government website construction, government information sharing and business collaboration, government information security, and e-government management system. At present, the concept of cloud computing is diverse, and there are problems such as concept generalization. Some manufacturers package IDC, server clusters, etc. into cloud computing products or solutions. Some local governments blindly started to build so-called cloud computing centers and bases without clear requirements. The nature of the government determines that the government cloud is a private cloud, and it is against the law of the market for the government to invest in the construction of a public cloud. Building a cloud computing center is not simply building a building or buying a server, it must be geared to demand. The government cloud is not only a technical issue, but also needs supporting policies, regulations and management systems. The second is to seize historical opportunities. Computers and other hardware devices in many government departments in China are about to face the replacement. It is necessary to adopt a centralized procurement method to build a government cloud computing center. Considering the economies of scale and professional talents, build cloud computing centers at provincial, autonomous region, and municipal level governments. District and county level governments generally do not need to build cloud computing centers, and will be built by local cities or district cities.

After the party's 18th National Congress was convened in 2012, a new round of government institutional reforms will be carried out in accordance with past practice. It is recommended that the compilation department set up a centralized e-government management department when designing the three plans, which is responsible for unified planning, construction, management and operation of e-government. The third is to choose a good starting point. For national ministries and commissions, promote the concentration of data in vertical systems, expand computer rooms and data centers, and upgrade computer rooms and data centers to cloud computing centers; promote the SaaS of various business application systems for use by subordinate units to avoid repeated development or procurement. For local provinces and municipal governments, promote centralized computer rooms and generalized software SaaS to achieve unified software and hardware procurement, unified operation and maintenance; accelerate the construction of large OA systems based on cloud computing and government website groups, and promote government information sharing and business collaboration. The fourth is to insist on "promoting business with use."

The healthy development of the cloud computing industry depends on the effects of cloud computing applications. If the application of cloud computing technology can indeed achieve tangible results and a large number of application needs arise, the cloud computing industry will naturally develop rapidly. Although the construction of the government cloud computing center is inseparable from the support of the cloud computing industry, it is upside-down to promote the development of the cloud computing industry by promoting seedlings without deeply thinking about the application of cloud computing. Cloud computing is in line with the development direction of e-government in the new era, and it is an effective way to promote the healthy development of China's cloud computing industry by carrying out pilot demonstrations of government cloud computing technology applications, driving the application of cloud computing technology in the industry, and then promoting the application of cloud computing technology in the whole society.

#### CONCLUSION AND DISCUSSION

This summary fully illustrates the characteristics of the e-government APP combined with cloud technology, streamlining, optimizing and integrating government management and service functions, and implementing various business functions, services and government management through informatization. In the future, it will be a reliable helper for all levels of government and society. E-government cloud not only promotes the interconnection of various types of government cloud through unified standards but also avoids the creation of "information islands". It is beneficial to avoid duplication of construction, save construction funds, save time for the government and the public, and improve work efficiency.

So far, government departments have not set up a special department to manage the government cloud project, which will lead to problems in the management of government apps and thus form a "zombie", and make cloud technology prone to "information islands" and other problems. At present, general government services are still mostly offline. The current problem is that the phenomenon of "many permits and difficulty in handling affairs", which plagues the grassroots, exists in large numbers, causing the masses to repeatedly submit service materials and causing many inconveniences to the masses in doing business and starting businesses. To adapt to the situation and requirements, promote the modernization of the national governance system and governance capabilities, and build a service-oriented government, we need to further strengthen our efforts to summarize and promote the successful experience in the pilot regions and learn from developed countries' reliance on citizenship numbers and social security numbers to develop social insurance and medical care for citizens., Pension, tax payment, credit and other "No. 1" management service experience, accelerate the promotion of inter-departmental information sharing and business collaboration, simplify the masses' handling of links, improve government administrative efficiency, and smooth government affairs service channels, and strive to build convenient and fair, fair and inclusive, High-quality and efficient government service system.

With the rapid development of information technology, especially the popularization and application of Internet technology, it is the general trend to promote office automation, network, electronic and comprehensive information sharing of government departments. The report of the Party's "18th National Congress of the Communist Party of China" stated that it is necessary to "fully understand the new tasks of in-depth development of marketization, informatization, industrialization, urbanization, and internationalization, and profoundly grasp the" new issues and new contradictions "facing China. In addition, the central government attaches great importance to informatization.

On February 27, 2014, General Secretary Xi Jinping proposed at the opening ceremony of the seminar on social management and innovation of the leading party and ministerial cadres of the Central Party School that "further strengthen and improve information network management and improve the management level of the virtual society, Improve the online public opinion guidance mechanism. "On February 30, 2015, the Politburo of the CPC Central Committee held a meeting. General Secretary Xi Jinping once again emphasized the need to" improve information network service management and create a good social environment. "

On April 14, 2016, the General Office of the State Council forwarded the National Development Finance, the Reform Commission, the Ministry of Education, the Ministry of Public Security, the Ministry of Civil Affairs, the Ministry of Human Resources and Social Security, the Ministry of Housing and Urban-Rural Development, the National Health and Family Planning Commission, the Legislative Affairs Office of the State Council, and the

National Standards Committee 10 departments including "Promoting the" Internet + Government Services "to carry out the pilot program for information benefiting the people". At present, smartphones have become the most important information terminal for urban residents. All kinds of apps (mobile phone software) on smartphones, with their powerful, rich and practical functions, are increasingly becoming assistants for people to work, live and learn. Commercial apps with different functions and government affairs apps have also emerged, which has attracted more and more people's attention.

The government affairs app is a government functional department and public service organization that uses mobile Internet information technology uses smartphones as a platform and uses app mobile phone software as a form to provide various public services to the society. With "Internet +" being written into the government work report for three consecutive years, Premier Li Keqiang proposed a specific direction for government reform in 2017: accelerate the interconnection of information systems of the State Council and local governments and form a unified national government service platform. Through the "Internet + government services" to achieve a simplified and decentralized government, decentralized management, and optimize the service of the three-in-one smart and efficient government. It can be seen that as an important portal of "Internet + government affairs", the construction and development of the government affairs app is the general trend. The application of cloud technology to government affairs apps to strengthen management and services is the primary goal for the future development of government affairs apps. Faced with the sudden attack of COVID-19 in 2020, both government departments and the education industry, all companies understand the necessity of implementing the smart city development government affairs app in the face of emergencies.

With the popularity of WIFI and 4G, there are more and more mobile Internet users who maintain considerable activity and log in anytime, anywhere. Mobile Internet access to network information and services has gradually become a habit. Various generalized, personalized and humanized application services are urgently needed by the government. The government app adapts to this demand. The public can query related information such as weather, travel, medical and health through the mobile intelligent terminal system. Information on people's livelihood in various aspects such as transportation, culture, employment, education and environment.

When users want to browse the relevant information of the local government, they only need to click on the desktop icon to enter, and then directly click to access. Secondly, the government affairs app service is more practical, the form is richer, and the personalized service is provided. Based on the construction of the government portal, App is a professional mobile Internet government service platform, including reading, querying, service, promotion and news and other functions, users can choose modules according to their needs, as well as modules, news, newsletters, etc. on the government affairs app. subscription. At the same time, through sharing, subscribing, inquiring and other functions, the public can create an exclusive personalized government mobile portal. The government affairs app is an important platform and tool for improving the government's humanized services. The biggest advantage of government affairs browsing is that it is easier to access and more diverse terminals, which can often be used for life through simple installation.

The government affairs app has shortened the distance between the people and the government. You can query the relevant information you need on the government affairs app at any time. According to the online feedback function of the government affairs app, government departments can better understand the voices of the people. When making political decisions or customizing a political system, you can collect people's opinions as a reference. In view of the shortcomings of the current government affairs app combined with basic cloud management, cloud computing is used to strengthen the current government

affairs app, which makes the government affairs app simple and clear, and can provide services when faced with any user, improving service efficiency.

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# THE ENHANCEMENT OF THE ROYAL POLICE CADETS' ENGLISH SPEAKING SKILL VIA THE USE OF INTERACTIVE E-BOOK

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#### **ABSTRACT**

This research aimed to: 1) compare the academic achievement of the royal police cadets' English speaking skill after the use of an interactive e-book with the attainment target of 70 percent, and 2) study their level of satisfaction towards the use of the interactive e-book. The sample group included 20 voluntary police cadets enrolled in the 1st semester of the 2019 academic year at Suan Sunandha Rajabhat University. The research instruments including lesson plan, interactive e-book, English speaking skill test, and satisfaction level questionnaire were developed by the researcher. The research utilized a T-test for one-sample design. The data were analyzed by percentage, mean, and standard deviation. The study found that: 1) the academic achievement of the royal police cadets' English speaking skill after the use of an interactive e-book met the attainment target of 70 percent at the statistically significant level of 0.05. 2) the royal police cadets' level of satisfaction towards the use of the interactive e-book for enhancing English speaking skills was at the level of most satisfied (X = 4.70). The convenient use of the e-book was ranked the most satisfied (X = 4.80), followed by the operation of the e-book at the level of (X = 4.68), and serving the language needs was ranked the least at the level of (X = 4.63)

**Keywords**: English speaking skill, E-book, Royal Police Cadets.

#### **INTRODUCTION**

The enhancement of the Royal police's English speaking skills is vital today, since Thailand's tourism industry, currently, has been growing continuously. One reason behind the growth seems to be the Ministry of Tourism and Sports of Thailand's Tourism Development Strategic Plan 2018 - 2021 aiming to develop the country to be the global leading quality and sustainable tourist destination. Developing Thai population's English proficiency, in this case, receives the most priority. Thailand, however, was ranked in a very low English proficiency country and was placed at the 74thplace from 100 participated countries according to the 2016 English Proficiency Index. Comparing with other Asian countries, Thailand English proficiency is lower than Indonesia (61st), Vietnam (52nd), China (40th), Malaysia (26th) respectively. It is suggested that the Thai population, especially students, these days are lack of ability to use English communicatively (Education First, 2019).

The police profession, in fact, is considered as one of the crucial role players in developing Thailand's tourism industry in terms of security and serving people who live and travelin the country. It is safe to say that the police professional has to communicate with many people from many countries almost every day. Developing their English proficiency, particularly speaking skills, is e s s e n t i a l in order to make them able to effectively

communicate, protect, and assist the greater number of people in the near future (Ministry of Tourism and Sports, 2018).

Speaking skill is the most important language skill in teaching and learning English since it is the fundamental communication skill that can expose learners to gaining other language skills, reading, writing, and so on. In other words, speaking skill is the foundation of learning a language. In Thailand, English is taught as a foreign language in which learners are not provided enough opportunities to use English. The learners, as a consequence, find it difficult speaking English. The royal police cadets, in the same way, are not provided sufficient opportunities to practice using English for communication. This possibly makes their job harder in terms of communicating with people when they are on duties, securing and serving people. Their English speaking skills, thus, should be developed intensively, comprehensively, and sufficiently) Kasamesuk, 2015).

Electronic Books or E-books are generally known as one of the innovative educational materials with well-organized learning systems that allow learners to study on their own. In other words, they are self-directed learning materials. The e-books, in fact, are the combination between the content and many kinds of multimedia, such as pictures, sounds, videos, to name but a few. At present, the e-books can both verbally and non-verbally interact with the learners. This can effectively foster learning. Therefore, developing learners' language skills, especially speaking skills, through the use of self-directed learning materials ande-books, are strongly recommended (Rojpraset, 2009).

For the s e reasons, the researcher intends to conduct this study entitled the Enhancement of Royal Police Cadets' English Speaking Skill via the Use of Interactive E-book with the aims to compare their academic achievement in terms of English speaking skill with the attainment target of 70 percent and to study their satisfaction towards the use of interactive e-book for enhancing English speaking skill.

#### LITERATURE REVIEW

Nowadays, interactive e-book development mostly intends to transform printed coursebooks to digitized ones rather than to invent and utilize new teaching and learning technology to support pedagogy (Coyle 2008). Many researchers, therefore, have conducted studies on the integration of interactive e-books with the pedagogical fields (Bierman, Ortega & Rupp-Serrano, 2010; Pattuelli, & Rabina, 2010; Woody, Daniel, & Baker, 2010). Users especially higher education learners, in general, prefer interactive learning materials and resources (Bierman et al. 2010). The interactive e-books, however, should be carefully developed by using more constructive design since the findings of Woody et al. (2010) suggests that both teachers and students believe that today's interactive e-books are not well-designed enough to be used as teaching and learning materials. For the reasons, the concerns of usability and functionality of interactive e-books became significant for wider studies on interactive e-books development and application, especially in the field of language teaching and learning (Berg, Hoffmann & Dawson, 2010).

The study conducted by Huang, Liang, Su, and Chen (2012) suggests that elementary school students prefer interactive e-books rather than printed books in terms of application and functionality. The students' language literacy, besides, was effectively improved by the interactive e-books according to the study conducted by Korat (2010). It is also suggested that kinds of multimedia equipped in interactive e-books can effectively enhance language learning (Grimshaw, Dungworth, McKnight, and Morris, 2007).

#### RESEARCH METHODOLOGY

#### 3.1 Population and Sample Group

The population in the study included 40 Thai Police Cadets enrolled in the 1st semester of the 2019 academic year at Suan Sunandha Rajabhat University. The sample group in the study were 20 voluntarily Thai police cadets enrolled in the 1st semester of the 2019 academic year at Suan Sunandha Rajabhat University. They voluntarily participated in the study with the permission of a chairperson of the Public Administration Program.

#### **3.2 Data Collection Instruments**

The data collection instruments in the study included 1) An interactiv ee-book-based lesson plan developed by the researcher [with slight modification]. It was distributed to a panel of experts majoring in teaching English as a foreign language (TEFL). The content and teaching procedure were reviewed and they agreed that the lesson plan suits the objectives of the study. The quality of the lesson plan ranged from 4.67 - 4.94; 2) An interactive e-book developed with the use of the Flip PDF Professional (content and pages organizer) and the Adobe Illustrator (graphic organizer). The interactive e-book content is divided into 2 parts as follows: 1) policecontext-related example situations and 2) direction-giving focused lesson which included (1) directions-giving related terminologies with examples of use, (2) Whquestions and Yes/No questions forms with examples of use, (3) English speaking skill exercises, and (4) English speaking skill post-test. The interactive e-book was distributed to a panel of three experts specialized in educational technology and teaching English as a foreign language (TEFL). The correctness of the content and quality of the e-book were reviewed and evaluated as "Good" ( $\bar{X}$ == 4.3, S.D.= 0.9) with slight modifications including adjusting the size and colors of fonts and pictures. The researcher modified the interactive e-book according to the experts' suggestions to ensure the correctness of the content and quality of the e-book; 3) An English speaking skill test developed by the researcher [with slight modification]. Before developing the test, the researcher distributed the table of test specifications to the research advisor. The items of the test were checked. After the researcher modified the test according to the advisor, it was distributed to a panel of experts who are specialized in teaching English as a foreign language (TEFL). Then, the test was tried out with the royal police cadets who are not the research sample group. The Item Objective Congruence Index (IOC) of the test was 1.00. The item difficulty ranged between 0.53 - 0.67, the item discrimination ranged between 0.42 - 0.64, and the overall reliability was 0.86; 4) A satisfaction levelquestionnaire developed with the use of a 5-point Likert-type scale. The questionnaire included 3 aspects (12 items) as follows: 1) serving the language needs, 2) the operation of the e-book, and 3) the convenient use of the e-book. The questionnaire was distributed to a panel of three experts. The items of the questionnaire were reviewed. The Item Objective Congruence Index (IOC) of the questionnaire ranged between 0.5 - 0.96.

#### 3.3 Data C ollectionMethods

The data collection was conducted as follows: 1) the researcher contacted the coordinator of the Public Administration Program (Suan Sunandha Rajabhat University) and Assistant Professor Duangkamol Thitivesa, Ph.D., the coordinator of Faculty of Education (Suan Sunandha Rajabhat University) for discussing the research schedule, 2) reviewing pieces of literature and related studies, 3) an interactive-e-book based lesson plan was developed by the researcher, 4) conducting the lesson according to the designed lesson plan, 5) an English speaking skill test was employed to evaluate the academic achievement of the

royal police cadets' English speaking skill after the use of the e-book, and 6) the royal police cadets' satisfaction towards the use of interactive e-book was examined by the use of the 5-point Likert-type scale questionnaire.

#### 3.4 Data Analysis

The data analysis was performed according to the researcher objectives as follows:

1) The researcher utilized the T-test for One Sample Design to compare the academic achievement of the royal police cadets' English speaking skill after the use of an interactive e-book with the attainment target of 70 percent, and 2) The mean and standard deviation were employed to analyze the royal police cadets' level of satisfaction from using the interactive e-book for enhancing English speaking skills.

#### **RESULTS AND FINDINGS**

The analyses are presented in 3 sections as follows: 1) demographic data, 2) the academic achievement of the Royal Police Cadets' English speaking skill, and 3) the royal police cadets' level of satisfaction towards the use of the interactive e-book.

## 4.1 Demographic Data of the Royal Police Cadets at Suan Sunandha Rajabhat University

The demographic data of the royal police cadets at Suan Sunandha Rajabhat University was illustrated in Table 1 below.

**Table 1.** Demographic Data of the Royal Police Cadets at Suan Sunandha Rajabhat University

Variable	Data	Frequency (N = 20)	Percentage (%)
Gender	Male	20	100
Age	21 - 25	11	55
O	26 - 30	7	35
	31 - 35	2	10
Department	General Staff Division	6	30
_	Training Center	5	25
	Royal Court Security Division	9	45

As Table 1 shows, the study sample consisted of 20 male royal police cadets. The cadets between 21-25 years were the largest group participants, accounting for 55.0%; this was followed by the age range of 26-30 years, representing 35.0%. The smallest number of participants (10.0%) was between 31-35 years old. Regarding departments, Table 1 displays that the cadets from the Royal Court Security Division were the largest group participants, accounting for 45.0%; this was followed by 30.0% who were from the General Staff Division, whereas only 5 of them (25.0%) were from the Training Center.

### 4.2 The Academic Achievement of the Royal Police Cadets' English Speaking Skill

To accomplish the first research objective in comparing the academic achievement of the royal police cadets' English speaking skill after the use of an interactive e-book with the attainment target of 70 percent, the researcher illustrates it in the Tables 2-3 below.

**Table 2.** The Academic Achievement of the Royal Police Cadets' English Speaking Skill

No.	Score	Percentage	Interpretation	No.	Score	Percentage	Interpretation
	(N =				(N =		
	20)				20)		
1	16	80	Pass	11	14	70	Pass
2	15	75	Pass	12	15	75	Pass
3	17	85	Pass	13	14	70	Pass
4	15	75	Pass	14	17	85	Pass
5	13	65	Fail	15	18	90	Pass
6	16	80	Pass	16	12	60	Fail
7	17	85	Pass	17	17	85	Pass
8	16	80	Pass	18	16	80	Pass
9	18	90	Pass	19	18	90	Pass
10	17	85	Pass	20	15	75	Pass
				$\bar{X}$	15.8	79	Pass
				S.D.	1.67		

With regard to the academic achievement of the royal police cadets' English speaking skill after the use of an interactive e-book comparing with the attainment target of 70 percent, Table 2 illustrates that overall academic achievement of the 20 royal police cadets' English speaking skill was at the level of pass ( $\bar{X}$ = 15.8, S.D.= 1.67) at the statistically significant level of .05.

# 4.3 The Royal Police Cadets' Satisfaction towards the Use of Interactive E-book.

To accomplish the second research objective in examining the royal police cadets' satisfaction towards the use of interactive e-book for enhancing English speaking skills, the researcher illustrates it in Table 3 below.

Table 3. The Royal Police Cadets' Satisfaction towards the Use of Interactive E-book.

Items -	$\frac{(N=20)}{\bar{X}}$	Interpretation
1. Serving the language needs	4.63	Most Satisfied
2. The operation of the e-book	4.68	Most Satisfied
3. The convenience of using the e-book	4.8	Most Satisfied
Total	4.70	Most Satisfied

Regarding the royal police cadets' satisfaction towards the use of interactive e-book for enhancing English speaking skill as shown in Table 3, overall satisfaction was at the level of most satisfied ( $\bar{X}$ = 4.70). Among the 3 aspects, the convenience of us ingthe e-book was ranked "asthe most satisfied" ( $\bar{X}$ = 4.80), followed by the operation of the e-book at the level of ( $\bar{X}$ = 4.68), and serving the language needs was ranked the least at the level of ( $\bar{X}$ = 4.63).

#### **CONCLUSION AND DISCUSSIONS**

The study of the Enhancement of Royal Police Cadets' English Speaking Skill via the use of interactive E-book is summarized below.

The study was conducted with 20 male royal police cadets as the sample group. The cadets between 21-25 years were the largest group participants, accounting for 55.0%. As the overall academic achievement of the royal police cadets' English speaking skill was at the level of "Pass" ( $\bar{X}$ = 15.8, S.D.= 1.67) at the statistically significant level of .05., the use of an interactive e-book seemed to effectively enhance the royal police cadets' English speaking skill to meet the attainment target of 70 percent.

The royal police cadets' satisfaction towards the use of interactive e-books for enhancing English speaking skills was at the level of most satisfied ( $\bar{X}$ = 4.70). Among the threeaspects, the convenient use of the e-book was ranked "asthe most satisfied" ( $\bar{X}$ = 4.80), followed by an operation of the e-book at the level of ( $\bar{X}$ = 4.68), and serving the language needs was ranked the least at the level of ( $\bar{X}$ = 4.63).

The findings discussion of the research entitled the Enhancement of Royal Police Cadets' English Speaking Skill via the Use of Interactive E-book can be divided into 2 sections according to the research objectives as follows:

Research Objective 1: To compare the academic achievement of the royal police cadets' English speaking skill after the use of an interactive e-book with the attainment target of 70 percent.

The use of the interactive e-book can make the royal police cadets' English speaking skill achieve the attainment target of 70 percent. Since the interactive e-book currently is the new interesting educational innovation equipped with attractive sounds and motion graphics, it can effectively catch students' attention as well as motivate their learning. The interactive e-book used in this research, besides, is well-designed as the content provided in the e-book was appropriate to the research sample group's needs surveyed by the researcher previously. Moreover, the way that the interactive e-book employs the hypertext function where content and media are categorized and connected allows the users to easily apply it at their learning friendly channel at any time, anywhere, and withany devices. Importantly, the correctness of the content and quality of the e-book were reviewed, evaluated, and advised by a panel of experts specialized in educational technology and teaching English as a foreign language (TEFL). Since some slight modifications according to the suggestions from the expertsincluding adjusting the size and colors of fonts and pictures were carefully incorporated by the researcher before distributing the e-book to the research sample group (the Royal Police Cadets), the academic achievement of their English speaking skill after the use of the modified interactive e-book met the attainment target of 70 percent. This is in line with Sinwanichkun (2009) who found in the study entitled the Result of Using the Electronic Book to Enhance English Reading Comprehension of the Undergraduate Students Majoring in Educational Technology, Faculty of Education, Silpakorn University, that the interactive ebooks created with the careful process of designing, evaluating, and modifying can facilitate students' learning as well as enhance their English speaking skills effectively and significantly.

Research Objective 2: To study the royal police cadets' level of satisfaction towards the use of interactive e-book for enhancing English speaking skill.

The royal police cadets' satisfaction towards the use of interactive e-book for enhancing English speaking skill was at the level of "most satisfied" ( $\bar{X}$ = 4.70). Among the

three aspects, the convenience of us ingthe e-book was ranked" as the most satisfied" ( $\bar{X}$ = 4.80). It seems to be associated with the responsive e-book design in which all users with all kinds of devices can easily access it. In other words, the e-book is compatible for all devices, such as smartphone, tablet, personal computer, to name but a few. Since the e-book can be effectively run without internet connection, the users with no internet access can still use it anytime and anywhere. Besides, the Internal Information Linking Systems used in the ebook, as well, allows the users to use the e-book conveniently. As also seen in the research findings, the royal police cadets' satisfaction leveltowards the aspect of serving the language needs was ranked the least at the level ( $\bar{X}$ = 4.63). It seems to be associated with the language needs of the sample group, that were not comprehensively responded to. As the researcher reviewed many pieces of literature, there are various language needs among the sample group, the royal police cadets. The different language abilities level among the voluntarily participated sample group who came from different departments, moreover, was considered as another significant limitation of the research since their varied language needs cannot be responded by this research due to the limitation of time. The royal police cadets' satisfaction towards the aspect of serving the language needs, for the reasons, was ranked the least. This is in line with Thitivesa (2015) who found in the study entitled the Development of Taxi Drivers' English Speaking Skill that English speaking skills cannot be effectively and sufficiently developed with the limited time. In other hands, developing English speaking skills requires a considerable amount of time.

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#### INNOVATION AND KNOWLEDGE MANAGMENT

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# **ABSTRACT**

Innovation should be initiated, evaluated and protected by both innovators or/and their organizations. More and more facts prove, that knowledge management is as important as innovation itself. Also, the human capital theory needs to be practiced in daily life in order to keep the result of innovation and bring more profit. The thesis describes the history & development of Industry 4.0 in Metalworking Fields, also discusses the successful cases and analyze the reason of success. The Human Capital Theory and Intellectual Property contribute also a lot to knowledge management and innovational. Every organization needs to be focused on integration of the above facts to survive in crisis.

**Keywords**: Metalworking, Artificial Intelligence (A.I), Innovation, Knowledge Management (KM), Intellectual Property (IP), Human Capital Management (HCM)

#### 1. Overview of Metalworking in Industry 4.0

Metalworking goes through all aspects of all industries. In the history, there are 4 periods of industry revolution, which are milestones of modernization of the word. The 1st revolution is mechanization, 2nd electrification, 3rd automation, 4th as we know Industry 4.0 with Cyber physical system.

Industry 4.0 is a concept, originated in Germany (where it is known as "Industrie 4.0"). It is used to be defined as data driven. Artificial Intelligence (A.I) powered, networked "smart factories" etc.

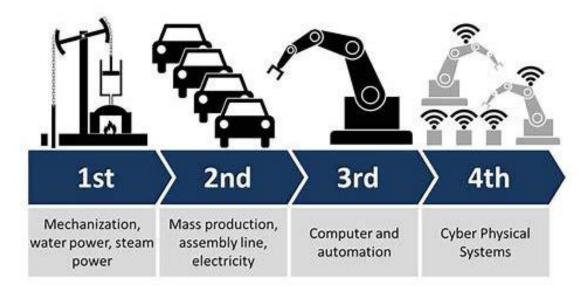


Fig.1 - the development of Industry1.0 to 4.0

Cyber-physical systems form the basis of Industry 4.0 (e.g., 'smart machines'). They use modern control systems, have embedded software systems and dispose of an Internet address to connect and be addressed via the Internet of Things (IoT). The process can be communicated between operators and machines. New ways of production, more value creation and efficiency optimization are based on it. Remote monitoring or track and trace. All that needs speedy internet connect, therefore 5G is very important for production control. The Supervisor can inspect and track all data (of course access with internal authorization) with smart phone or tablets or any portable appliances. The data can be saved in Cloud with security technology. This predicted transition of manufacturing processes, technologies are based on these core principles

as followed:

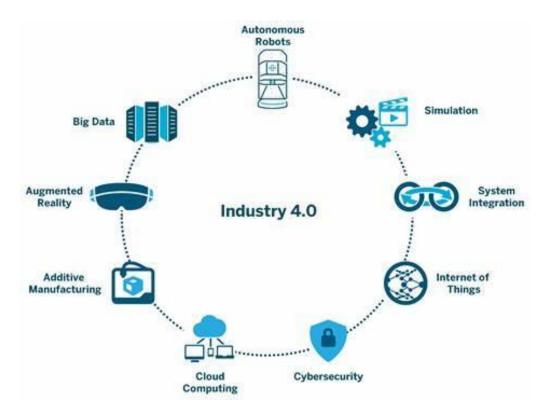


Fig. 2 -9 Core principles of Industry 4.0

Smart Industry is a hot topic in the manufacturing industry. Industry 4.0 is all about digitization and automation. Especially for CNC Machines (computer numerical controlled machines), machine tools and accessories.

The machines and machine tools builder modernize the construction, integrate more software so that their users can make secondary development, like programming or modification. That means, smart machines and tools required smart personnel to operate and work with.

The metalworking plants run smartly and to be supported by qualified workers and engineers, who communicate with machine with programs and codes.

They need to digitalize the resources, otherwise, modern machines lose value instead creating value. During the daily work, the operators or engineers will find more application to enhance capacity and efficiency, meantime to decrease the production cost.

This kind of exploration should be defined as innovation. The staffs are expected to be involved in innovation and innovative activities; especially self-motivated innovators should be rewarded or awarded more for their contribution.

The organization should manage the innovation in correct way, in order to protect the knowledge together with innovators. Also, Human Resource Thinking should be transformed to Human Capital Thinking. If the staff finds himself/herself treated like innovator and part of Human Capital, his motivation will be doubled or tripled.

# 2. Knowledge Management and Innovation

Knowledge management (KM) is the process of creating, sharing, using and managing the knowledge and information of an organization.

It refers to multidisciplinary approach to achieve organizational objectives by making the best use of knowledge.

Knowledge Management has at least 3 units: content management, community management & collaboration, competence management and etc. All these mentioned units contribute a lot to innovation.

2.1 Content Management to make innovation accessible and secure

We are downing in information, while starving for wisdom. (Edward O. Wilson)

Wilson's (1988) quotation stresses that a vast amount of information is available to us, but we have not transferred them to useful tool for us. We are expected to transform the associated context and useful information and "translate" for normal people for their understanding. Then we can build a healthy circle to make our results and wisdom much more useful and not limited to current application field. All innovation should be kept in content management system.

Content contains associated context with information, which will be stored in socalled databank. Today with the "Cloud Technology" and Security Technology, the content, especially the new innovated results will be saved correctly to avoid any abusing. Who has the access to the databank? It is defined by Master and organization, who build and control the databank.

Thea application of knowledge management (KM) instruments augments the possibility and capability to present content (info. and context). To generate context by many tools, eg. supporting explication mechanisms with multi-media tools.

Today the multi-media tools, the tools in Industry 4.0 can be tablets, smart phones, VR glasses and all of them are supported by internet, e.g. 5G, Cloud and security technology. With the technology revolution, we have profited from the main innovation, e.g. Big Data, especially the data mining and 5G technology makes the learning and sharing without barrier of location and time.

Cases as followed: Smart Plant Industry 4.0 - CNC Metalworking operator's innovation to be recognized and kept for further creation concept.

For example, in metalworking plant. The operator is working on the machine. He has access to the programs and codes of production process. Assuming, he has to repeat operation for same product. He can load the format information from history in machine directly or he can use his wisdom to make completely new program, new process or he just optimize and upgrade the existing program and process. Even if it's only a new program or new solution, that is also kind of innovation. If he can use more tools to model parts, he can save both time for company and himself.

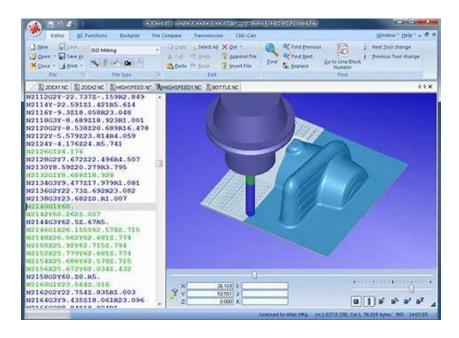


Fig.3 - CNC programming and modeling

We assume that he has optimized the existing program and got higher efficiency. He went to his manager for higher pay. His boss needed to treat him correctly, so that the operator can share the program and save data in machines. Other operators can optimize the program further and further. Make more innovation from last innovation is the key of technical development. It's intelligent and costs less. If the boss refuses to show recognition and ignore to give staff reward, the new program, small innovation and Kaizen will be definitely deleted from the machine. The company loses the wisdom and loses also the possibility of any further innovation. Someday, the operator will leave the company with his wisdom and innovation, which was created during the work.





Fig. 4- Smartphone, computer connected with CNC Machine

Especially in Industry 4.0 times, the smart plant's future depends a lot on staff's qualifications. Fix assets are fixed, but human capital has mobility. Innovation is made by person. Sometime with brainstorming.

As leader, he/she needs motivation system to keep the talents, to share result of success and knowledge and experience of his staffs. So that, they can record and summarize their "innovation" as knowledge for internal sharing or Kaizen. Not every staff has ability to text and record his minds and conclude the innovated "Know-How". We help and support the documentary and wording. These experiences, innovation will be kept in databank. That means, we use this way to minimize negative objects brought by staff's job changing.

#### 2.2 Community Management & Collaboration both outside and inside organization

"Collaboration is taking the workplace. As business becomes increasingly global and cross-functional, silos are breaking down, connectivity is increasing, and teamwork is seen as a key to organizational success. [...] The time spent by managers and employees in collaborative activities has ballooned by 50% or more." (Cross et al. 2016)

Collaboration is defined as the sum of task-related activities that team member perform to research common goals.

Community management is aiming at facilitating collaboration between team members. So, community manager has collected and captured variable info. systems to push this knowledge interchange processes with information technology (IT). We build up mechanism and platform, where effective functions can be used for synchronized or asynchronized data. At the same time, interaction to reach a common goal.

Sometimes, a virtual team is essential. Virtual team is a team which one or more team members are separated by distance or time. (Tyran et. al. 2019)

Cases as followed: use Innovation 5G, APP, VR to bring further innovation V 2.0, innovation application and collaboration.

For many automotive parts manufactories, who are the direct profiters of Industry 4.0, they have many branches, customers and suppliers all over the world. It is very ideal, if their production programs can be synchronized. But the interruption and shutdown of production lines can't be avoided 100%.

20 years ago, we use internet via Telephone line with Modem to make "machines remote diagnosis". One Telephone line and one long cable need to be drugged through

workshop or whole building. 8 years ago, all machines were equipped with Wi-Lan "Remote Session and Diagnosis". 1<sup>st</sup> Level Support colleagues of machine supplier have all mechanical and electric drawing in his databank. There are so many documents, even kept in the base room with photographic films. The server needs to be secured against data losing and leaking.

During the "Remote Session and Diagnosis", the 1<sup>st</sup> Level Support Engineer of machine supplier in Germany called the machine users in China. With very low internet speed to check the machine trouble and shoot troubles.

The Chinese user tried to communicate with 1<sup>st</sup> level support engineer in Germany. But there are also language problems.



Fig. 5 - Remote Session and Diagnosis

Since 2012, we had smartphone and all kinds of translation App. But there is still one problem. From the Remote Session, the 1<sup>st</sup> Level Support engineer can only detect the electric troubles. For example, the limit switches (for security reasons) shows through diagnosis system status "open". But in reality, they are all closed. (If the machine gets the output signal, means the limit switches are open. The machine can't run for safety reason.) That means, that 1<sup>st</sup> Level Support technician couldn't see what happen on-site with eyes. So, he couldn't help so much. What he could do is only parameter transferring or machine restarting.

Today, we have new solution. The VR Glass with special app on smart phones makes the virtual on-site inspection possible. Before, traditional Remote Session/Diagnosis could only solve electric problems or programs problem. Sometimes, overwriting the parameter took very long time because of slow internet speed. Today 4G and 5 G technology make the connecting and data transforming speedy. With the VR, the mechanical problems in China can be observed from Germany, both electrical and mechanical troubles can be detected and solved in time. Less time for problem solving. Less cost and higher satisfaction.

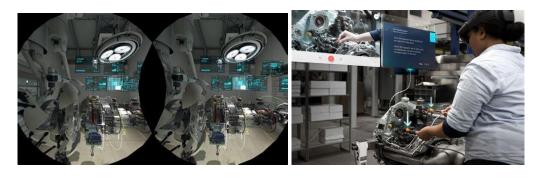


Fig.6- VR supports Remote Session and Diagnosis

10 years ago, cost of Remote Session/Diagnosis should be EUR 100 per hour. Most of machine users couldn't afford it. They could also not change the EUR from Chinese Currency to transfer the service cost very fast. Also, they have sometimes argument about the responsibilities, whose fault to make the machine down. The machine users did not understand why remote session was so expensive. Sometime, machine suppliers have to ask for payment in advance, but machine users could not change currency and make speedy T/T payment. The conflicts came both from technical and commercial reasons.

Today, the diagnosis costs less time, of course, less money. The E-Payment makes payment also speedy. We get better solution instead of blaming and complains.

Community and collaboration are not only inside in one organization, but also be outside one single unit/ organization, that means between different organizations, locations, all over the world.

Nowadays, the technology is very advanced. But organizations also need to train his/her staff to use new equipment smartly and correctly. Set the access strictly, in order to avoid important data leaking to competitors is also very essential.

Social media life pushes knowledge sharing in REAL

Social Networks have also impact on Industry 4.0 and knowledge share. In 2017, 45.9 million people in Germany used social network sites. This number is expected to rise to 48.13 Million in 2022. The worldwide amount of social network users rose from 0.97 billion in 2021.

Many CNC technicians use social media to share their interesting technical Tips and learn new technique from other technician all over the world. Also, some machine builder and machine tools supplier make online-videos with their social media account to teach users—online free courses can save service and communication cost and avoid conflicts with users, which come from incorrect use of machines or tools. Also, the social media makes easier for their users to know about the brand, also users learn more for products' application. Sometime, the podcast's effect is better than offline seminar or business fair.



Fig. 7 - Machines builder – HAAS Machinery free online course and Podcast

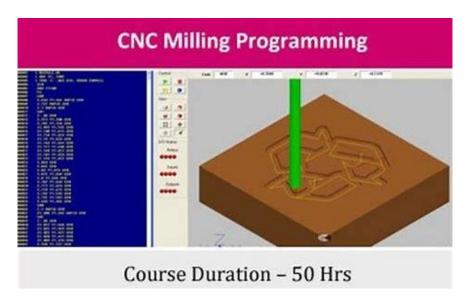


Fig.8 – CNC programming online course- E-learning

This collaboration outside brings loyalty of users and minimize the service cost (travel and labor cost) of sold machines or tools within 1 year guarantee.

#### 2.3 Competence Management and Innovation Management

Fast changing economic conditions and increasingly complex work tasks requires employees-particularly those in knowledge-intensive industries- to learn continuously and to develop their competences (Prahalad & Hamel 1990; Simon 2010)

Consequently, many organizations have adopted competence management approaches to identify and develop their internal capabilities, as well as to determine and develop their workforce's' knowledge and skills (Boyatzis 2008; Hellström et al.2000; Lindgren et al. 2004)

Competence management involves the specification of an organization's overall competence needs, the identification of individual competence gaps (between needed and actual competence), and individual competence development through training and coaching, and the staffing of projects (Lindgren et. al. 2004)

Core competence include all firm-specific learning capabilities, resources, and routines that are embedded in an organization's structure, technology, processes and interpersonal (and intergroup) relationships (Lado & Wilson 1994)

Competences are a person's (an employee's) underlying characteristics and abilities, which result in effective decision-making abilities, capacities to act, and/or superior performance in a job. Competences are therefore rooted in a person's explicit and implicit knowledge (Boyatzis 2008; Riempp 2004)

No organization can survive without continuous innovation. Innovation is the core competences of any organization. There are 2 perspectives, from organizational and individual.

Organizational core competences (Organizational Perspective)

- Roots of competitive advantage
- Learning, resources and routines

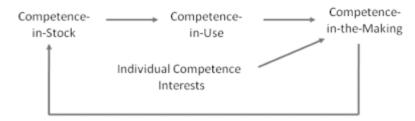


Fig.9 – A model of competences in organization (Lindgren et al. 2004)

The innovation capability is the key of competences both for organizations and staffs. Industry 4.0 concept requires more possibilities of intelligence, especially Artificial Intelligence. For the metalworking industry, the smart plant is well organized, clean and highly standardized. Many plants in China need standards ISO 9000/14000/18000 to bid and win the tender to get orders and they will be audited each year and every 3 years for review. Also, the Kaizen, 6 Sigma, Lean management have been embedded in most of the metalworking machine builders, tools makers and metalworking fluid (chemicals companies for lubricants) suppliers. That means, the whole industry keeps same level of internal management and produce the same level quality products to the society.

Cases as followed: COVID 19 makes metalworking industry down. Only the innovators have chances to survive and get better chance.

The influence of COVID 19 has infected the whole metalworking industry. The metalworking industry has depended on automotive since very long time. In the past years, the metalworking plants have invested huge amount to import high-tech 4 axis, even 5 axis machines, they have also invested robotics like ABB, Kuka and Fanuc. The machines have very stable mechanical performance and high output.

At the begin of COVID19, the orders from automotive were unfortunately decreasing. But some plants have focused on mask converting machines R&D. They innovated the machines from Series #1 to Series #3 only within 2~3 months. The mask converting machines and his parts require actually less precision like automotive parts or aerospace parts. But they require some non-standard parts. In order to shorten the delivery time of machines, the assembly requires less time for casting and modelling. In this time, the 3 D Printing have supported a lot to the R&D. The CNC Machine operators were back from home and they needed to experience 14 days quarantine. With the VR and Remote Control with the CNC machines in plant, they have finished and tested the programming of different machine parts during their 14 days quarantine. During this time, the owners of the plant had close communication with the programmers from quarantine and worked with other machinists to keep the production.

At the begin of COVID 19, the machine tools manufactories and distributors had problem with orders and some problem of company running, the fixed cost of salary and rental made their life very stressful.

But they got the info of mask converting machines market is booming. In very short time, they have designed mask die-cutter roller and accessories. From the very beginning, the cost was higher, because there are no big orders. All of them are prototypes.

But machine tools distributors have learnt, that principle of masks die-cutter roller is very similar like tissue and non-woven sanitary producing lines. There are many raw material and roller in stock. They informed the machine tools manufactories accordingly, so that they purchased the rollers and make the knifes rollers in less time and lower cost. The distributors' information and innovation cross metalworking and tissue/hygiene industry have saved themselves and also their long-term business partner- machine tools manufactories.

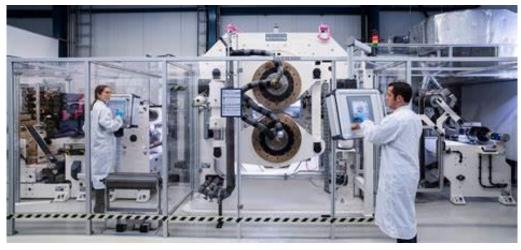






Fig. 10 – cutting roller of hygiene products for mask converting

Cutting-rollers- in similar principle, cross hygienicses industry and metalworking industry. Innovation from existing technology for new application.

In short, innovation is spirit of organization. Everyone in the organization should know the competition is not only from daily life, but also from crisis. Only in crisis, many old competitors will disappear. Then we have the chance to get more survival spaces and chances.

Any innovation should be evaluated, whether it is feasible. What kind of mode and system, what kind of strategies to be studied.

There are 5 modes of competence of competence-based management. The destination is market and value.

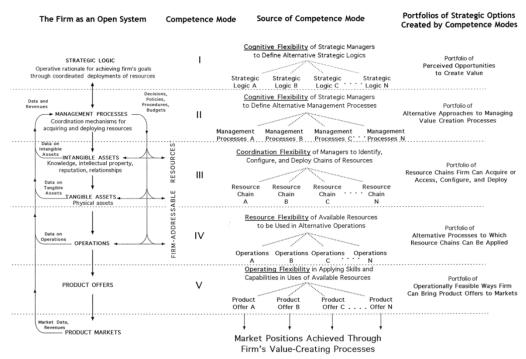


Fig. 11- Five modes of competence in competence-based management.

Many companies have failed to develop core competitions, because the management conceive the company as comprising a collation of discrete business and disregard the mutually shared competences. (Parahalad & Hamel 1990)

If the owners or the team leaders are afraid of interchange or even afraid of the competence, the innovational sprit of his/her team players, the organization will definitely lose her/his attraction. The talents will leave the company with their competency and they will have very unformattable feeling in old team without perspectives.

There are still very modern companies, they don't want to follow the "mask trends". Because they feel the business is temporary or just not match their Hi-Tech philosophy. But at the same time, they also try to explore new chances to make up the lost from COVID 19. Not every company needs to make mask or mask machines. But they need to have prearranged planning, we call them Plan B. They need to use their fixed assets, their expensive machines and of course to keep their talents to make innovation to minimize their lost and survive in this crisis.

#### 3. Innovation vs. Intellectual Property (IP)

Intellectual property (IP) is a term for any intangible asset -- something proprietary that doesn't exist as a physical object but has value. Examples of intellectual property include designs, concepts, software, inventions, trade secrets, formulas and brand names, as well as works of art. Intellectual property can be protected by copyright trademark, patent or other legal measure.

The Industry 4.0 is driven by Innovation. The innovators and their creation need to be protected and put to commercial use. The relative laws can protect the innovators from unauthorized use by others. The ownership of IP creates a limited monopoly within the protected property.

All IPs have validity and expiration, e.g. protection years. Different types of IP have different expiration. The reason is, human beings need to move and develop the society. Different countries have different regulation, but the goal is the same, encourage and protect IP.

The organizations need to enforce and encourage the staff to make innovation. In the past, if the innovation was made during working hours, the innovation and IP belonged to the organization. But now, the innovator can register the IP together with organization. The profit can be shared between individual and organization. So that, more and more innovators have interest to create new things during their work.

Especially for Metalworking Industry. It's very traditional industry, which requires more new ideas and concepts. This industry covers every sub-industry, e.g. automotive, aerospace, ships, paper & tissue making etc., both for civil use and military use. It's also very important for national defense.

Cases as followed: SCA -Brand Tempo- pin to pin embossing, Co-Innovation IP with embossing roller Supplier Saueressig.

In principal, there are 3 types of embossing, pin to flat, female male and pin to pin, accordingly 3 types of embossing applied in tissue products. Pin to Pin is the most modern technology.

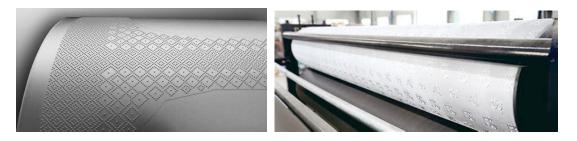


Fig. 12 – steel to steel embossing rollers for tissue converting

There are 2 companies to make the innovation and register IP in very special way to protect themselves. They are tissue manufactory SCA and Embossing Technology Company Saueressig.

SCA is the biggest Tissue Factory in Europa. The company is successful with Brand Tempo in the world. Many years ago, one engineer of SCA had new idea of pin to pin embossing pattern for their famous Brandmark Tempo products. They believed; the new pattern will make Tempo more famous in order to get long lifespan of Tempo.

But SCA is a tissue factory, they have tissue making and converting machines, purchased from machine builders. That means, they cannot make complex accessories by themselves. They need support from their embossing equipment suppliers to realize their ideas.

Among 3 embossing roller manufactories, they have chosen the famous German Company Saueressig, who is sure to have the interest to invest and who has ability to make R&D. Their co-work is protected by NDA (Non-Disclosure Agreement).

Meanwhile, SCA registered the idea and final tissue product with Pin to Pin embossing pattern to tissue products. It took some time to wait, at the same time, Saueressig made R&D.

Saueressig has long time experience and technical background, the company is focused on embossing roller and printing roller for different application, eg. wallpaper, tissue, non-woven or printing industry. SCA is his key account for huge order-intake yearly.

Saueressig has motivated the whole team on this project. After the successful test, Saueressig has registered IP for pin to pin embossing.

This strategy of co-innovation and IP makes the both companies very successful.

That means: SCA is the only tissue factory in the world, who can and is allowed to produce Pin to Pin embossed tissue. The series product with this application is Tempo, whose Brandmark (IP) is already worldwide famous for high quality.

And Saueressig is the only embossing roller supplier, who is allowed to manufacture the pin to pin embossing rollers in the world.

In this case, Saueressig's Embossing technology IP is bond with the Tissue product IP of SCA. Saueressig gets large stable orders from SCA and SCA has the whole market of this special technology and pattern applied in tissue products.

Saueressig is not allowed to sell Pin to Pin Embossing Rollers to any other tissue factory without the approval from SCA. It's very famous case of Co-Innovation.

Innovation is a chain with upstream and downstream. The organizations need to consider of it and make liaison with upstream or downstream. Without the support from Saueressig, SCA cannot realize this idea and Tempo will not be so famous and have so long lifespan in the market. Without SCA's initiation and innovation, Saueressig has not long-term large orders and other embossing rollers makers will compete with him to get orders from SCA. And up till know, the family owned company Saueressig is still so famous for this IP.

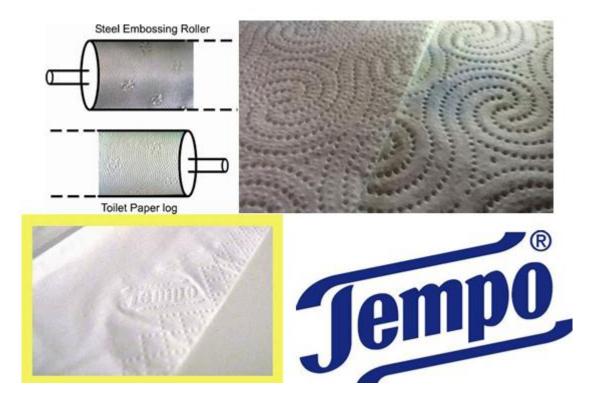


Fig. 13 – IP in different categories

#### 4. Human Capital Management (HCM) and Innovation

Human capital management (HCM) is a set of practices related to people resource management. These practices are focused on the organizational need to provide specific competencies and are implemented in three categories: workforce acquisition, workforce management and workforce optimization.



Fig. 12 - Human Capital Management matrix

Human Capital Management (HCM) treats individual as capital. The capital can bring organization workforce. Higher level of capital can create added value to the organization, here mentioned as Innovation.

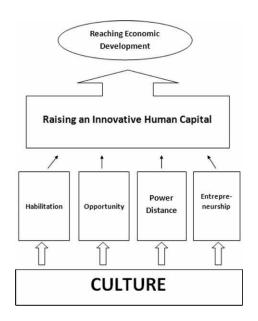


Fig. 13 - Raising innovative Human Capital

Co-Work between staffs and organization, Brainstorming, Mind Mapping are traditional methods for innovation. The staff should know, they have to update their skills and the organization will respect their willing and idea to make co-innovation. And they have the possibility to have concrete profit from their creation. They can also get the IP or transfer authorization. This kind of culture should be based on the management concept from managers, who may concern internal challenge or internal competition from their team player. If they have this kind of mentality, it will harm the innovators, which are one of most important capital of the companies. The fixed assets, like machines have depreciation. The human capital has no depreciation as well as IP. To keep the human capital is to likely to keep more IP potential for the companies.

The key tasks for the managers are to build innovative and organizational system and apply innovative leadership stills. Department managers, R&D managers, who may not be involved in the detailed innovation routine works, e.g. labor testing, production test. But they can innovate new organization methods to control the innovation process and cost. This is also creation, which is directly driven by investment. So, the managers don't need to fear of the capability and talents of their team players. This kind of innovation management and achievements also needs to be evaluated and rewarded. This is the art of balance, balance between managers and organizations/owners, balance of managers with his team players, balance of income and outcome, cost and investment, profit sharing.

### 5. Conclusion- rolls of KI, HCM, IP in innovation and Education

In one organization or cross different organizations, the innovation is key factor for survival. Knowledge management builds the portal of Know-How, experience, innovation, IP and push the innovators to share his/her accomplishment.

In order to encourage the innovators to share his creation, the organizations need to build rewarding system and treat him as one part of Human Capital. Human Capital has core concepts to follow, creativity is the one of the most important ones.

Organizations should study the relative laws regarding Intellectual Property (IP), same to the staffs. Create Eco-System of innovation atmosphere and innovative culture can assure further innovation and keep the talents.

Learning and creation are not slogan, but very crucial for many successful companies. Their "existing successful business convention" is "double-edged" sword. Before any crisis, they lack sense of crisis.

Before the crisis, they have no defense. According to Michael Porter's Five Force Model, there are threat of new entrances and threat of substitute products. All threats origin from innovations from all directions, sometimes the border of business is not so clear, but they compete with. Even the innovation and revolution of supplier will change the plant to follow up.

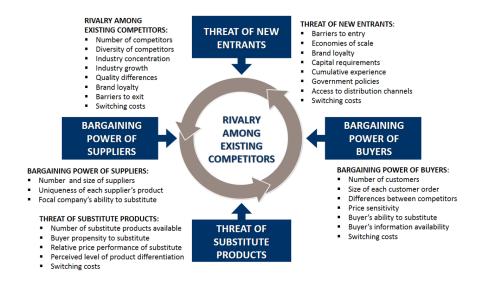


Fig. 14 - Michael Porter's Five Force Model

In metalworking industry, Cloud technology can be used to manage and synchronize databank from different locations. 5G and smartphone together with APP make the machine operators' work easier. In the past, every worker needed to handle 4-5 machines alone in the night shift. Sometimes, they had to run fast from this machine to another. With remote

control on Smartphone, they can control the operation even from toilette. Then they can have more time to make technical Tipps and improve their programming skills from E-Learning.

The automation and A.I make their work flexible and safer. The Robots can be programmed and centralized to take parts from the machine from 1st process to next process, another machine. The precision and mistakes are minimized and accidents can be avoided efficiently.



Fig. 15 - one Robot can manage many CNC machines





Fig. 16 - Schunk Gripping Technology- beyond traditional robots



Fig. 17- Robot KUKA plays chess with kids for A.I education

The education programs between enterprises and schools are very essential. Especially for the kids have no idea of vocation plan, more girls need to be involved in this industry. Also, the guidance is very important for vocational education.

In Germany there are "Duales System", DUAL means, students learn theory in schools for several days in the week, other weekdays in factories. IHK-Industrie und Handelskammer (German), in English -German Chamber for industry and Commercial will authorize and audit qualified companies to offer practical learning places. These companies get preferential policy of tax etc. and they are to be encouraged by IHK to offer more learning headcounts.

After 2 years, 3 years vocational education, IHK will organize theory and practical exams. If the students pass the exam successfully, they will get certificates, which are essential for job seeking. After that, they can upgrade to "Meistertitel" (Master Title), which give them more perspective in career life. Or they can apply bachelor, master, Dr. to develop themselves academically.



Fig. 18 - Certificated German enterprises, certification of students, who passed exams

The education and vocational training also push innovation of Industry 4.0. Many students have innovation and register IP during their 3 years education. The rolls of KI, HCM, IP in innovation and education are more and more obvious and crucial.

# SERVICE INNOVATION TRAVEL HEALTH FQR CODE MODE INTRODUCED DURING THE EPIDEMIC

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#### **ABSTRACT**

Service innovation is a basic type of innovation, which refers that new ideas and technologies are applied during service to improve the existing service processes and service products. The health QR code produced under the influence of Corona Virus Disease 2019 belongs to service innovation according to innovation content and nature. This paper conducts the exploration on the travel health QR code mode introduced under the the influence of Corona Virus Disease 2019 on social environment, and elaborates the effect of it on social service, realization of epidemic resistance and the resumption of work and production in society, and this development trend of service innovation.

**Keywords**: Service innovation, Corona Virus Disease 2019, Health QR code, Resumption of work and production.

#### INTRODUCTION

Schumpeter thinks that so-called "innovation" is to "build a new production function", which refers to introduce one kind of "new combination" about production factors and production conditions, which is never used, into production system. And this innovation includes 1) Introduce new products; 2) Introduce new technology; 3) Opening up new markets; 4) Control the new sources of supplement of raw materials; 5) Realize the new organization of the enterprise. Innovation can be understood as the creative activities to create new value (Business value or social value) in a broad sense. Innovation can be understood as the whole process from the generation research, development, trial production, manufacturing of ideas to the first commercialization in a narrow sense, which is to transfer foresight, knowledge and spirit of adventure to the power of wealth. We can divide innovation into four main types including product innovation, process innovation, service innovation and business model innovation according to the content and nature of innovation.

#### **Service innovation**

The meaning of service innovation is that modifies or transforms the service methods by new idea, new technique, and additionally improves the quality and efficiency of service, update the service containing. In a word, the primary characteristics of service innovation includes virtuality, indivisibility, discrepancy, non-storability, proprietorship-lacking and etc. However, the service innovation has its own flexibility, which allows it unleash from the shackles of unified model and platform. The methods and information sources differ according to the corresponding vocations. The information source of innovated service can divided into interior source and exterior source and the later is usually owning more extensive resource and more channels than the former, because of which, the exterior source can always draw attentions more easily.

The service innovation is influenced by the varieties of social environment, whose majority are some widely containing categories which mainly including social political environment, commercial environment, culture environment and psychological environment. Therefore a close monitoring at the varieties of social environment is urged by the service innovation and according to the change, a satisfactory establishment and implementation can be done.

The service innovation can separate into three phases. The first phase is to elevate the efficiency based on service procedure in existence by new technique. The procedure innovation has been achieved when new technique has been applied to original procedure and by which the obsolete one is modified. The second phase is to promote the service quality or reduce production expense by updating or completing the new procedure. This procedure phase expresses the tendency to mature and stability now. The third phase is mainly to innovate the service production, which can be approached by utilizing the information technology to manage the previous data of productions, for example, a online service can be provided from some collected data and materials.

#### The influence of Corona Virus Disease 2019 on social environment

At the end of 2019, the Corona Virus Disease 2019 out-broke in Wuhan, China, and spread to the whole country at the beginning of 2020. The happening and spread of Corona Virus Disease 2019 produces the huge impact and far-reaching influence on the social environment in China and even in the world. The prevention and control of epidemic situation of infectious diseases have been strengthened all over the country, and companies returned to work and production as soon as possible after the Spring Festival holiday. In addition to the epidemic areas in Hubei Province, other areas generally facing the two dilemmas of "flow governance", which refer that the government shall balance the normal population flow and companies shall return to work and production under the prevention and control of epidemic situation. This means that local governments and grass-roots organizations at all levels should accurately determine the risk situation of personnel and enterprises, and share the use of relevant information among different areas, different classes and different departments.

In the early stage of epidemic prevention and control, local government departments and grassroots organizations generally adopt manual operation and human sea tactics, and conduct level by level reporting for floating population and enterprises resumption of work and production, which makes grassroots organizations fall into "the sea of form". Owing to the non-sharing data and asymmetry information among different levels, regions and departments, it makes normal health personnel cannot flow and qualified enterprises cannot resume work and production, which cause lots of trouble on the grassroots work.

# The social service innovation under the influence of Corona Virus Disease 2019 "Travel health QR code mode"

Compared to the "SARS" epidemic out-breaking in China in 2003, owing to the rapid development and wide popularization of big data, internet of things, cloud computing, artificial intelligence and other emerging technologies, the prevention and control of epidemic situation of Corona Virus Disease 2019 shows the significant differences. China adopts the prevention and control measures of "the whole society, the whole government", which not only needs technical support from different aspects, but also needs appropriate service innovation to deal with the influence of the current epidemic on the resumption of work and production of the whole society. In this epidemic prevention and control, the large scale digital governance project represented by "smart city" generally has poor performance, which cannot effectively realize "Peacetime-to-Wartime Transformation". This bottom-up

service innovation "health QR code" originating from serving the whole social environment plays a huge role compared to it.

Practice has proved that the two hard requirements of double consideration and no delay to realize the prevention of epidemic and resumption of work cannot realize the accurate information, efficient collection and convenient application and other requirements of fine management and precise service just depending on traditional means of artificial management. It is in the process of breaking through this difficult problem, health QR code is born according to time: Apply the personal dynamic login on the phone to compare big data of network platform with each other, combining with personal integrity commitment and online verification, anti-counterfeiting, supervision and reporting, which can not only accurately record and reflect people's physical condition and flow path to provide electronic pass for life and the resumption of work and production, but also has the existing effect of extended radiation in the future. In addition to recording personal health and travel path, the health QR code can also specially set the application for registration and health registration of employee returning to synthesize "generation location code" and be asked to be published at plant entrance for the returning to work and production of companies, so that the personnel need to scan the green code every day to enter or leave the plant. The health QR code also has problems encountered in the resumption of work and production, and questionnaire needed to be classified in detail, so as to realize "online survey tracking—big data analysisoverall situation monitoring" and capture all in one net.

The health QR code takes the real data as basis, and citizens or reworking and returning personnel can produce their own health QR code through the self online declaration and background audit. The QR code serves as an electronic voucher for individuals to go in and out the local area to realize the one-time application and be used in the whole city. There are three health QR codes: Green code means health, yellow code means that people shall conduct isolation within 7 days, red code means that people shall conduct centralized isolation for 14 days.

The core of health QR code is that it is suggested by government and enterprises conduct a service innovation according to current social environment. The resource of its information is citizen registration, enterprise filling and third party data, and the service objects are mainly the government departments, grassroots organizations, enterprises and citizens. The health level of people is represented by health QR code, which can adapt to the needs of social development and progress on the basis of original feature of convenient traveling, so as to have a good start for current social development and future enterprise and community service modes.

The health QR code integrates information reported by people, public security database, the database of centers for disease control, community electronic pass and so on, and form a dynamic data that can be updated in real-time finally through algorithm platform, which will make the time and space distance between people and information shorten greatly.

The promotion of the service innovation—health QR code further enriches and expands the public's specific understanding on contemporary service innovation. In modern society, service is not a set of rules or an activity, but an integrated, coordinated and continuous service process. It can not only involves public departments, but also involves market subjects, social organizations or public individuals.

The operation process behind health QR code is the collection of the cross validation of user identity, work, travel, society, health status and other information, and the typical cases of cross department, cross organization and interactive cooperation. Its deeper significance lies in exploring new mode of service innovation successfully. The popularity of health code and more real scene integration will serve for the whole society finally and promote the development of the digital governance of the whole society.

#### The future of "health QR code"

Service innovation is a continuous and eternal process, which is also a pressing topics. Especially under the influence of current Corona Virus Disease 2019 on the social environment, there is few special service innovation mechanisms, which is only a few new opinions and ideas without any effective and sustainable innovation mechanism, so we shall constantly explore the road of service innovation and strive to adapt to the development requirements of social environment.

Reviewing the historical process of human social development, any production and development of new things are a double-edged sword. We shall not only see the social benefits economic benefits and other positive aspects brought by health QR code, but also watch out the potential security risks and possible social influences behind health QR codes. In the prevention and control of Corona Virus Disease 2019, the important measurement of Chinese government for floating personnel management is the health QR code. The corresponding prevention and isolation measures is adopted through conducting the uniqueness identification for everyone's scope of activities combining with epidemic risk situation. China is planning to resume work and production, and the health QR code, as management service means, achieves effective application, which shall give a certain answer. However, the health OR code belongs to an innovative measure serving the society promoted under the special environment of epidemic prevention and control, resumption of work and production. Owing to pressing time and strong pertinence, it will filter out some details in the whole process for brewing to implementation. Moreover, it shall be seen that the epidemic is mostly local at current stage. Under the new situation of overall prevention and control of epidemic situation and economic and social development, the division of epidemic risk areas shall be more accurate, and the management of health QR code shall be more scientific.

With the further improvement of the national epidemic situation, where should health code go in the post-epidemic era? Health QR code should be "cross-regional" and "cross-border", and be suitable for "roaming" and "long tour". So-called "cross-regional" is to cross regions to realize the full national "roaming"; So-called "cross-border" is to cross borders to promote transformation, implement upgrading, so as to make it change the form to live for a long time and contribute for social service innovation and smart city construction.

Facing with future reforms, which refers to the innovation of human behavior and thinking, people shall have it with a positive mentality and as the words written on the wall by researchers and developers that "when the challenge comes, we should overcome it"!

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# GOOD CORPORATE GOVERNANCE, THE KEYSTONE PRINCIPLES OF MANAGEMENT: A CASE STUDY OF THE GOVERNMENT PENSION FUND OF THAILAND

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#### **ABSTRACT**

Good Corporate Governance or CG in short is a principle widely adopted for many current management schemes in order to create and encourage organizations to perform with full potential and efficiency. An example is how an honest and diligent performance of employees is able to expand the business of that particular organization. Moreover, others involved in the business tend to have more faith and believe in that organization which helps the organization to develop continuously. This also benefits the government's stability and the country's development. The Government Pension Fund is another organization that has received considerable attention from the public and its own members in terms of having Good Corporate Governance. That is because there have been incidents or issues that involve a lack of transparency in the past 3-4 years. Therefore, in response to this, GPF needs to regain the confidence of the society and members. This qualitative research paper aimed to study the best practice regulation of the Government Pension Fund of Thailand or GPF; to explore the importance of good corporate governance; and to identify and compares the changes in terms of overall operation in accordance with Best Practice based on the Organization for Economic Cooperation and Development: OECD and other incidents that were questioned on the transparency of each secretary-general during his term. It uses the data from 2008 containing myriad incidents that show the lack of transparency in comparison to the current 2012 data. The findings show that giving importance to overall operation and following the guidelines strictly result in an operation that is good, efficient and sustaining with credibility and trust from all parties. The study pointed out that the GPF was a good example of the organization that regained public trust and receiving a positive image and credibility after implementing corporate good governance in all aspects of its organizational management. Therefore, other organization can use GPF as an example in operating under good governance principles strictly result in an operation that is good, supports the creation and promotion of an organization to gain higher potentials and effectiveness, sustainable development in all aspects, stability and prosperity. in all aspects, stability and prosperity.

**Keywords:** Corporate Governance, Good Governance, Government Pension Fund, Transparency

#### INTRODUCTION

Government Pension Fund (GPF) was established under the Government Pension Fund Act B.E. 2539 (1996). The establishment has contributed to capability of higher relevant investment with the highest benefits and good governance to its membership. The GPF is the nation's largest institutional investor with a huge number of members [1]. During the last 3-4 years, mistakes were found in its management that resulted in financial lose and lack of creditability among its members. The problems reflected a lack of good corporate governance in the GPF management. Therefore, in order to safeguard the image of the GPF and build higher trust and confidence for its members and with the society as a whole, the GPF has improved, becoming a trustworthy Pension Fund Organization that manages with good corporate governance [2]. This paper studied the changes of the GPF in terms of its operational practice based on the Organization for Economic Cooperation and Development (OECD) Best Practice in corporate good governance [3]. A comparison of data between the GPF's past operation that had a lack of transparency in 2008 and the current 2012 data when it gained good image, to explore how the good image was monitored by the good corporate governance standard best practice [4], [5].

#### **OBJECTIVE**

1. To study the best practice in good corporate governance of the Government Pension Fund of Thailand.

and explore the importance of good corporate governance.

2. To analyze and compare the changes in terms of overall operation in corporate before and after adopting the good corporate governance.

#### **METHODOLOGY**

This qualitative research paper aimed to study the best practice regulation of the Government Pension Fund of Thailand or GPF; to explore the importance of good corporate governance; and to identify and compare impacts towards the organizational operation and image before and after adopting the good corporate governance. The study employed the six principles of good corporate governance and best practice including accountability, responsibility, equitable treatment, transparency, value creation and ethics [6]. Three parts were incorporated in the study method. These consisted of the following: first, a comparison of the transparency indication of the GPF's operation between 2008 and 2012 in 5 aspects including membership management expenditure, public relation expenditure, expenditure caused from recruiting advisory and professional personnel, expenditure for committee and meetings, and net financial benefit (or lose); second, a comparison of the good corporate governance policy between the time of public distrust in 2008 and the changes in 2012 of the OECD corporate good governance best practice. The implementation, comprise 5 aspects which were the right of the members, equitable treatment to the members, roles of the stakeholders, data disclosure and transparency, and the committee responsibility [7]; and third, the issue related to the secretary-general of the committee in 2008 compared to 2012.

#### RESULTS

The GPF 2008 annual report was compared with the 2012 one in the following aspects: membership management expenditure, public relation expenditure, advisory and professional fees, expenditure for committee and meetings, and net financial benefit (or lose). The comparative findings presented differences between the past and present operational outcomes. With this, the GPF 2008 and 2012 good corporate governance policy was analyzed and compared with the OECD six principles of good corporate governance. The analysis of the differences and changes pointed out the following aspects: first, in 2008 the GPF did not give an importance to good corporate governance policy; second, most of the GPF's staff and management lacked attention to corporate good governance resulting in a lack of transparency and credibility of the institution and creating public and membership distrust. This negative image was replaced by a continuous improvement in which good corporate governance was adopted in the GPF's operation to ensure that its operations would be strictly monitored under relevant law, rules and regulation. The international best practice was implemented in the management with trustworthy, integrity, no conflict of interest, transparency and accountability. Since 2012, the GPF has become an institution that manages with good governance. The comparison was organized into 3 parts. The transparency of the GPF's operation was indicated in the 5 aspects including membership management expenditure, public relation expenditure, expenditure caused from hiring advisory and professional personnel, expenditure for committee and meetings, and net financial benefit (or loses). Some activities of 2008 reported very high spending such as the membership management expenditure (100 million Baht), but was reduced in 2012 (18 million Baht). This was after the GPF's use of E- Pension as a good corporate governance policy. The expenditures were decreased by giving more consideration to any unnecessary activities such as the public relation expenditure. The expenditure caused from recruiting advisory and professional personnel has increased as the GPF put more focus on international investment. It has recruited more people to serve the advisory positions for international investment (34 million Baht), resulting in higher profitability from high return on investment. It could be concluded that the GPF produced higher profitability after its continuous implementation of the good corporate governance. The findings from the analysis of the 5 aspects of the best practice after the changes in 2012 with the implement of good governance were reported accordingly. Publicizing of important information was done through the website for the members and providing the necessary information for annual meetings in advance to the members to ensure that they could have enough time to read and prepare suggestions before each meeting. Stockbrokerage was strictly monitored, while the stockbrokerage regulation was reviewed. Moreover, the Principles of Responsible Investment was seriously practiced by addressing the Environmental, Social and Governance or ESG factors. The GPF started to utilize the Strategic Asset Allocation (SAA) in its long- term investment, whereas every three year a revision of its goals, and beneficiaries and asset allocation were made.

#### CONCLUSION AND FUTURE WORK

Many historical tracks have reported that organizations, both private and public, that manage without good corporate governance have faced failure in their operations or could not reach their ultimate goals. The GPF is a good example of the organization that regained public trust and received positive image and credibility after implementing corporate good governance in all aspects of its organizational management. Therefore, each organization

must be operated under the good governance practice from the management to the staff level. Good governance for developing countries can contribute to national economic productivity and increase of revenue, as well as poverty reduction and a sustainable national administration. In addition, good governance has been viewed as the promoter of civil society empowerment toward sustainable human capital development.

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# RESEARCH ON THE TRANSFORMATION AND UPGRADING OF TOURISM SCENIC SPOT MANAGEMENT FROM THE PERSPECTIVE OF SMART TOURISM

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#### **ABSTRACT**

With the popularization of internet technology, tourists in China have become increasingly dependent on the internet. In this context, the concept of smart tourism came into being, which can better serve tourists. This article discusses the concept of smart tourism, its market characteristics, the shortcomings of the traditional tourist scenic area management and different management model under the perspective of smart tourism, and put forward the transformation method of scenic spot management from the perspective of smart tourism, in order to be able to engage from the perspective of tourism, the research on the transformation and upgrading of the management of tourist attractions provides some meaningful references.

Keywords: Smart tourism, Tourist attractions, Tourism Management, Transformation

# INTRODUCTION

With the deepening of reform and opening-up, China's economy has continued growing rapidly for many years. Computer technology is also maturing and popularizing. With the continuous improvement of network speed, broadband fee continues to decrease or stay the same. On August 30, 2019, the China Internet Network Information Center (CNNIC) released the 44th "Statistical Report on the Development Status of China's Internet" in Beijing. According to the "Statistical Report" statistics, as of June 2019, the number of internet users in China reached 854 million people. Especially in recent years, China's mobile network technology has been maturing, and the number of internet users aged 50 or 60 has been increasing. In this context, the tourism industry depends heavily on the internet. Whether it is the operator of the attraction, or a travel agency or tourist, they are already accustomed to satisfying their needs through the internet. The operator needs to understand the needs and pain points of tourists on the Internet, and tourists need to know about the relevant situation of the attractions through the Internet. Tourists can more easily acquire the price of attractions, surrounding traffic, accommodation, route planning, etc. This greatly improves the travel efficiency of tourists and saves time and cost. This is also one of the reasons why the number of tourists in various scenic spots in China is increasing.

# 1. The concept of smart tourism

Wisdom tourism, also known as intelligent tourism is to use cloud computing, Internet of Things and other new technologies, through the internet / mobile internet, with the help of portable terminal internet equipment, acitive perception of tourism resources, tourism economy, tourism activities, tourists and other aspects of information, timely release, so that people can timely understand this information can be used to arrange and adjust work and

travel plans in a timely manner, so as to achieve the effect of intelligent perception and facilitate the use of various types of travel information. The construction and development of smart tourism will ultimately be reflected in four aspects: tourism experience, tourism management, tourism services, and tourism marketing.

#### 2. Market characteristics of smart tourism

The traditional management of tourist attractions is entirely based on word-of-mouth or some traditional media descriptions and records. Such a model can no longer match the current era of smart internet. The current operation and management of tourist attractions pay more attention to attracting more tourists through the Internet, optimizing the tourist experience of tourists, and thus achieving a double harvest of economic revenue and public praise of tourist attractions. With the continuous development and maturity of smart tourism, it is imperative to transform and upgrade the management of tourist attractions.

# 2.1 The number of self-guided tourists is gradually increasing

In traditional tourism, the vast majority of people travel through travel agencies, which was affected by the background of different times. In 2000, it is not too much to say to be an important watershed for the development of China's Internet development. After 2000, computers in China began to spread in large numbers, and the internet began to enter people's lives. Against this background, self-guided tours have begun to appear in China. People can arrange their own time according to their own needs, and they are no longer dependent on travel agencies and teams. The current self-guided tour has involved tourists of all ages, and has become the main force of China's current tourism. The rapid development of China's domestic tourism industry in recent years is enough to prove the prosperity of self-guided tour in China.

#### 2.2 Tourists' self-awareness continues to increase

Although the management of many tourist attractions has been continuously improved with the development of smart tourism. However, the management mode of some scenic spots still lags behind, relying on the traditional management model to manage these scenic spots. In some scenic spots, the number of tourists has not been estimated, and no corresponding measures have been taken to deal with it, resulting in a large number of tourists gathering, which is very likely to cause hidden safety hazards and easily cause some damage to the scenic spots. Such as trampled lawns, long queues in toilets, overcrowded scenic spots, garbage everywhere, and even children lost and people trampled.

# 3. Insufficiency of traditional tourism scenic spots management and management model in the perspective of smart tourism

# 3.1 The traditional way of propaganda was not kept pace with the times

The promotion of traditional tourist attractions is carried out through advertising brochures, newspapers, TV advertisements, car body advertisements, TV program sponsorship, etc. These models are generally more traditional and outdated, which are less attractive to consumers and more expensive. When conducting ground promotion, the vast majority of passers-by won't be attracted by the leaflets from the ground promotion staff.

#### 3.2 Customer limited sources

The scenic spots relied on the travel agency to bring them tourists in the past, but with the continuous development of smart tourism, the traditional travel agency brings fewer and fewer customers. Most tourists choose the self-guided tour model, and the traditional management model does not carry out online marketing, which is bound to have a huge impact on traffic.

#### 3.3 Low scenic area management level

The traditional scenic spot management level is generally low, and some managers feel that their scenic spot is a unique resource and that tourists will continue to visit. No attention is paid to the maintenance and management measures of scenic spots, and many scenic spots ignore the problems. In many scenic spots, you will see pictures that are prohibited from taking photos, but the scenic spot management ignores the tourists phototaking behavior, and some tourists trample the lawn at will, and the scenic spot managers ignore them as well.

# 3.4 Scenic poor protection awareness

Many local governments only regatd scenic spots as one of the channels to increase financial revenue, often only focus on short-term benefits. There is overconsumption in many scenic spots. In some scenic spots that are not recoverable, there are excessive tourists visiting every day, which will inevitably bring incalculable loss to the scenic spots. The surrounding environment of some scenic spots has also been seriously damaged, which has caused huge pollution to the scenic spots. Some scenic spots are on the national highway. A large number of coal cars and trucks flow continuously every day, and a lot of wind and dust cause huge dust pollution to the scenic spots. For the sake of temporary financial income, the long-term development of the entire scenic spot is ignored, which is also a drawback of many scenic spots in China. In 2019, the National Tourism Administration reduced the Qiaojia compound in Shanxi from the 5A scenic spot to the 4A scenic spot due to the excessive commercialization of the scenic spot; the excessive commercialization of Songshan Shaolin Temple has also been criticized by many tourists. In the final analysis, this is the result of weak protection of tourism resources.

#### **METHODOLOGY**

# Methods of transforming the management of tourism scenic spots from the perspective of smart tourism

In view of the many shortcomings of the traditional management model of tourist attractions, in the context of smart tourism, some methods to promote the transformation of tourist attractions management.

#### 4.1 Ensuring excellent network communication hardware

One of the most basic prerequisites for the realization of smart tourism is to complete supporting network communication hardware facilities. The scenic spot must achieve full monitoring coverage, mobile phone 4G signal coverage, and wireless network signal coverage. The scenic spot must set up its own independent website, on which you can fully browse the relevant information of the scenic spot, such as the opening hours, opening items, weather conditions of the scenic spot, the forecast of the number of tourists, the concentration period of the number of tourists, and the catering facilities in the scenic spot.

### 4.2 Smart office under smart tourism

In order to truly realize smart tourism, the office model and method of the scenic spot should also be reformed intelligently. The staff attendance records can use automatic face brushing technology. The system automatically takes pictures of staff's commuting time and the number of entrances and exits, and actively integrates data. The staff in the scenic area can be equipped with interphones to communicate and contact with the relevant staff in real time, and can see the other party's work. In addition, related notices and internal meetings of scenic spots should be handled in a paperless office as much as possible. On the one hand, resources can be saved, on the other hand, office time and energy can be greatly saved. Staff can use debris time to learn.

# 4.3 Online self-guided service under smart tourism

Electronic interpreters and electronic tour guide services have been gradually adopted by more and more scenic spots, and tourists have become more and more accustomed to traveling and visiting in this way. In different scenic spots, tourists only need to click on specific scenic spots, and the interpreter will explain relevant knowledge and details. Through the electronic guide server, tourists can know their current location and the number of tourists in other attractions, so that they can arrange their own tour routes according to specific circumstances.

# 4.4 Full coverage of monitoring system under smart tourism

Traditional scenic spot monitoring only puts core scenic spots into the monitoring scope, and under the management of scenic spots management concept and smart tourism perspective, the monitoring measures should be fully covered in the scenic spot. The entrances and exits of scenic spots, tourist attractions, roads and parking lots in scenic spots are all key monitoring targets. The scenic spot should do a good job in analyzing the daily data of tourists, including visitors on common daily and special days. The number of parking lots should also be registered, analyzed and evaluated. Only by collating, analyzing, and researching these data, can we make corresponding strategic responses to the prediction of the number of tourists.

#### 4.5 Security measures under smart tourism

The scenic spot must do related security measures. The automatic fire alarm system of the scenic spot should be checked regularly, and the fire drill should be done regularly. Food safety monitoring should also be placed in a more important position to ensure the safety and reliability of food sources and the safety and reliability of the processing process, as well as relevant automatic rapid detection systems. The electronic patrol system is another very important security measure. Through the electronic patrol system, hidden safety hazards in scenic spots can be discovered in time to make up and remedy in time.

# 4.6 Improvement of electronic ticketing system

ow more and more tourists are used to buying tickets through Meituan, WeChat, Alipay, the official website of scenic spots or other ticketing websites, or scanning QR codes near the ticket window of scenic spots. These methods are all effective ways to evaluate the number of tourists in advance, and can also reduce line-up time at the ticket office in the scenic spot.

#### 4.7 Strengthen the construction of related supporting facilities

The supporting facilities mentioned here mainly refer to hotels and restaurants, especially for some large scenic spots that require a long tour time. Through the construction of smart hotels, tourists can reserve orders and pay by themselves. Tourists can see the number of rooms and the remaining number of the hotel through the system, which greatly saves social resources, improves the efficiency of handling and the experience of tourists.

# $\textbf{4.8 Strengthen} \quad \textbf{the coordination and cooperation of various competent departments}$

The "Global tourism" development strategy is to implement the CPC Central Committee proposed innovation, coordination, green travel, open choices, sharing the practical requirements of five development concept, and comprehensive relationship between industry and commerce, transportation, health, quality inspection, public security and judicial departments, information sharing and collaboration, with deepening the reform of the administrative system as the starting point, straighten out the travel complaint handling mechanism, put specific functions into the supervision of the tourism market, and promote industry law enforcement, public security penalties, judicial mediation, and criminal litigation in the tourism market governance process effectively unified, improve the ability of government authorities in solving tourism problems and handling tourism complaints, and effectively maintain the normal order of the tourism market.

# 4.9 Establishing a new marketing model for smart scenic spots

Even the best scenic spots also need to be promoted, especially in the context of smart tourism. Tourist scenic spots need more online marketing. Through online forums, post bars, WeChat official accounts, etc., more potential tourists can know the scenic spots and attract more relevant facilities to accurately match the needs of tourists. There is a big difference between smart marketing and traditional marketing. Instead of using traditional media for marketing and promotion, we use new media to promote our scenic spots to achieve accurate potential tourists. By focusing on "smart scenic spots", combined with cloud computing platforms and mobile intelligent terminal devices with the help of network technology, and using B2C and O2O marketing models, we will build an e-commerce platform for tourists and upstream and downstream tourism companies to promote tourism information, Tourism culture display and relevant activities, such as scenic spot ticket purchase, transportation accommodation reservation, itinerary route recommendation, investment attraction negotiation, etc., to widely attract tourists and create a good image of the scenic spot.

#### **CONCLUSION**

Under the background of the infiltration and integration of internet technology and traditional industries, tourism industry has entered the era of smart tourism, and a series of drawbacks of the traditional operation and management model of tourist attractions have gradually emerged. The intelligent transformation and upgrading of the tourism scenic spot management and management is conducive to the construction of smart scenic spots. Achieve the effects of integrating demand, optimizing supply, optimizing resource allocation, improving service quality, and achieving sustainable development, realizing industrial innovation and integration of the tourism industry and the internet industry with the new generation of information technology as the link, and promoting the realization of the tourism industry in the new era. Transformation and upgrading have become a pillar industry in the national economic system. Therefore, it is necessary to fully explore the role of internet technology in optimizing resource allocation, adjusting industrial structure, innovating working process, and improving working efficiency in the tourism industry, to further promote the integration of tourism and the internet industry, face market demand, and manage both externally and internally. In terms of aspects, the management and management model of tourist attractions will be intelligently transformed and upgraded to realize the scientific and systematic nature of tourist attractions management under the new era.

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# INNOVATIVE RESEARCH ON IDEOLOGICAL AND POLITICAL WORK BASED ON WECHAT PUBLIC ACCOUNT UNDER THE NEW CROWN EPIDEMIC

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#### **ABSTRACT**

The outbreak of the new crown virus has brought certain opportunities and challenges to ideological and political work in colleges and universities. This article uses the WeChat public account platform to analyze its comprehensive, objective and scientific analysis, make full use of its multi-end, simple and convenient, low cost and rapid spread characteristics, combined with patriotism education, life and health education, social responsibility education, etc. Provide practical significance for ideological and political education.

**Keywords:** New Crown Virus; WeChat public account; ideological and political work.

In December 2019, new coronavirus pneumonia (COVID-19) appeared in Wuhan, Hubei Province and quickly spread to 215 countries across the country and the world. On January 30, 2020, the World Health Organization declared the COVID-19 epidemic as a public health emergency of international concern [1]. The Ministry of Education has issued a "no-stop, no-stop" education deployment. Ideological and political education runs through the entire process of education and teaching. The WeChat public account as a new model of Internet operation has accelerated the transfer of online ideological and political education and promoted A new situation in ideological and political work under epidemic prevention and control.

# 1. Statement of problem

Quest Mobile data shows that since the outbreak, the amount of time each netizen spends on mobile Internet per day has increased by 21.5% over the beginning of the year. In the sudden impact of the New Crown epidemic, the rapid development of modern information technologies such as the Internet, big data, and artificial intelligence has pushed the world into a new era of the Internet of Everything. The WeChat public account ideological and political work has become the red sea of current ideological and political education. In this "battle", how ideological and political workers in colleges and universities use new media means to timely grasp the ideological dynamics of students, how to innovate the ideological and political work methods, and how to respond to the times have become the pain points and difficulties of the current ideological and political work.

#### 2. Challenges facing

2.1 The information is developed, and students are susceptible to the negative effects of multiculturalism [2]. According to the data of the 2019 Freshman Report, "after 00" has become the main force. This group of "post-00s" who are called "millennial babies" and "421 family babies" are characterized by fragmentation, multi-dimensions, and changeability due to factors such as growth environment and social development [3]. The outbreak of the new crown epidemic has caused certain fluctuations in the thoughts, behaviors, and consciousness

- of "post-00". At the same time, the immaturity of online education and teaching has caused some students to be excluded, anxious, and lazy, which has increased the pressure on ideological and political work in colleges and universities.
- 2.2 The frequent occurrence of news crises impacts the harmonious and stable development of colleges and universities [4]. During the epidemic prevention and control period, under social media conditions, false information and rumors about the prevention of viruses, such as salt water gargle, several layers of masks, smoking and drinking, drinking Shuanghuanglian, heating and smoking vinegar, appeared in a large number of netizens. It has become an important factor in creating news crisis events. Because of the fission of the Internet, students get more information than teachers. If students are preemptive, the management of education and teaching will be greatly reduced.
- 2.3 The Internet "micro-trend" prevails, and the traditional ideological education model is affected [2]. The rapid development of social media such as Weibo and WeChat, the openness of information and the increasing accessibility of information at any time and any place, educators are no longer authoritative and monopolistic in information and knowledge, and the educators' dominant and decisive status is cancelled. The traditional directional relationship between the educator and the educated is to be deconstructed, and equality and interaction have become the norm in this era.

# 3. Opportunities

- 3.1 Provide a new way for carrying out ideological and political education. With the rapid development of information technology, the establishment of the WeChat public platform has opened up new channels and new carriers for student work management, providing more systematic management materials for ideological and political educators in colleges and universities. University ideological and political workers can use WeChat public platform, combined with the case stories of "the most beautiful retrograde", "Youth after the 00's battle", extract the spiritual core of love, family and life education, and vigorously promote the correct value orientation, Runwu quietly infected students, writing a great chapter of the Chinese nation.
- 3.2 Provide new channels for college students' psychological growth and behavior development. The sudden infection of CDVID-19 and the overload of information have caused a huge impact and impact on public psychology. For college students, extended vacations, long-term home, must reduce travel, unable to go to school to study and participate in social activities, which may affect their academic performance and increase anxiety and depression [5]. Relying on the WeChat public account platform, we can establish psychological assistance hotlines, emails, online consultations, and provide more consultation channels to alleviate the students' bad emotions in a timely manner to meet the students' 24 hours of uninterrupted psychological support needs. Let students better understand their own psychological reactions, accept themselves, and enable them to actively adjust their mentality, predict and adjust their mental state, and learn and apply effective psychological techniques to cope.
- 3.3 Provide a new opportunity for guiding college students to self-realization. Maslow's hierarchy of needs theory divides human needs into five categories: physiological needs, safety needs, love and belonging, respect and self-actualization. Self-actualization needs are people's highest needs and the highest realm pursued by personal development [6]. The WeChat public account platform provides multiple ways for college students to self-realize. During the outbreak, students can combine their hobbies and participate in online activities in a timely manner, integrate learning resources, enrich social practices, expand social circles, promote self-realization, and achieve comprehensive development.

#### 4. Innovation Path

- 4.1 Build an all-round, all-factors, high-efficiency working system. One is to do a good job of connecting online and offline, master the active voice of ideological and political work, strive to achieve the virtual and real development of education objects, guard the network position, expand the education platform, and enrich online and offline education activities. The second is to adhere to the unity of theory and practice, and strive to create an educational teaching model that complements the advantages of theoretical classrooms and practical activities to understand students, infect students, and attract students. The third is to create knowledge and value scenarios for learning, and to provide red education and three-view education with the core values of socialism as the carrier, while strengthening the network service function and exerting the network education function.
- 4.2 Build a complex, expert and innovative thinking team. The team of instructors is committed to building a group of ideological teams with excellent political quality, excellent professional ability, and excellent working style. The first is to actively study, find the correct positioning, study hard, and improve capabilities by participating in expert lectures, work exchanges, and outing training, and work towards professionalism, specialization, and expertization. The second is to have a keen political consciousness, accurately grasp the direction of public opinion, timely grasp the ideological trends of students, have a clear banner and master the initiative, and be brave to shoulder the important task of staying at the school's ideological defense line. The third is to take the word "strict" first and "love" in it. Understand the characteristics of students, pay attention to method guidance, warm students with true feelings, guide students with actions, tolerate students with their minds, and lead role model education.
- 4.3 To create a healthy, clean, positive, and encouraging cultural atmosphere. One is to establish a charter and regulate the words and deeds of the network. Further standardize the account management of VPN, mailbox and other information systems, strict account application review and real-name authentication mechanism; through unified identity authentication, WeChat, mobile phone number, ID card number and other combined authentication, improve the level of platform security certification to ensure that students use the Internet Safety. The second is to strengthen online moral education and cultivate students' self-education ability. Guide students to establish correct values, use new media platforms for learning, abide by network moral concepts, and conduct self-supervision, self-regulation, self-reflection, and self-criticism. The third is to build a firewall and purify the network environment. To prevent hackers from using e-mail, social networks, phishing e-mail and other channels to spread computer viruses and carry out cyber-attacks, security warning information should be issued in time to inform network users not to click to download documents, e-mails and compressed packages from unknown sources and establish a line Carry out ideological defense for teacher and student network security. Filter web pages, monitor in time, check regularly, integrate socialist culture with Chinese characteristics, and build a "firewall" in your mind.

# 5. Summary

General Secretary Xi Jinping proposed in the conference on ideological and political work in colleges and universities to "change with the times, advance with the times, and new with the circumstances". Crisis is the freshest textbook, and disaster is the most profound classroom. Ideological and political workers in universities should make full use of the WeChat public account platform, penetrate the warmth of humanistic care, innovate the connotation of ideological and political culture, keep the main battlefield of ideological and political education, and commit themselves to fight the epidemic prevention and control.

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# DAMEI AFRICA-RED-AGATE DESING AND IMPLEMENTATION OF INTERNET MARKETING PROGRAM

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#### **ABSTRACT**

Based on the study, analysis and research of the current situation of Internet marketing at home and abroad, this paper finds that with the development and application of new Internet technologies and information and communication technologies, new Internet marketing theories and applications will be constantly launched. However, enterprises of different natures should also design marketing plans according to their own characteristics, marketing budget and expected marketing results and objectives. In this paper, after understanding the current mainstream Internet marketing strategy, familiar with the characteristics of Internet marketing, I hope to combine the characteristics of Damei Africa-Red-Agate, choose the appropriate marketing tools, reasonable Internet marketing design.

This paper attempts to promote the WeChat Official accounts of Damei Africa-Red-Agate through the application of Internet marketing combination schemes such as we-media marketing, search engine marketing, Baidu Tieba marketing and Online To Offline marketing, so as to achieve the purpose of improving the popularity of Damei Africa-Red-Agate. Finally, through the implementation of the program and from the WeChat public number of attention, the average reading of the public number of articles and industry influence rankings to evaluate the implementation effect of the program.

It is hoped that this paper will try to apply Internet marketing to agate jade ornaments and provide some reference for the Internet marketing activities of jade jewelry industry.

**Keywords:** Internet marketing, WeChat marketing, Online To Offline marketing, Diversion.

#### **INTRODUCTION**

#### 1.1 Problem statement

With the continuous improvement of people's living standards, various collections, cultural and entertainment, and jewelry markets are booming. According to statistics from relevant departments, the market scale of my country's cultural and entertainment industry reached 690 billion yuan in 2015. It is estimated that by 2020, the entire market will reach 887 billion yuan, which means that the cultural and entertainment market is still in a rapid development stage.

However, the current development of the agate jewelry market is also in a relatively backward situation. This is mainly reflected in the fact that the main sales model of agate jewelry is still mainly wholesale and retail in offline stores. The Internet is rarely used for marketing activities. Damei Africa-Red-Agate is an agate jewelry brand founded in 2014, with its headquarters in Shenzhen. In 2014, the sales in Beijing were mainly authorized to a shop in Panjiayuan, with monthly sales of about 8,000-10,000 yuan and annual sales of about 100,000 yuan. Compared with the huge market in which the annual sales of Beijing capital are in billions, it is not ideal. It is imperative to change this situation. The consumption upgrading idea proposed in the 2015 government work report "Encourages Online and Offline Interaction to Promote the Innovation and Transformation of Real Business" [1].

There are three main reasons for the unsatisfactory sales of Damei Africa-Red-Agate in Beijing: first, the product is too single, currently mainly pendants, and a small number of bracelets and ornaments. Second, due to lack of publicity, consumers are very popular The brand awareness of agate is not enough and lacks visibility. Third, the investment promotion is not enough, which leads to too single sales channels.

#### 1.2 Research questions

- 1. Research on the current status of agate at home and abroad and the market competition situation faced by Damei Africa-Red-Agate;
- 2. Research relevant theories of contemporary Internet marketing, including: Weibo marketing, integrated marketing, QR code marketing, self-media marketing, soft marketing, direct marketing, relational marketing database marketing, search engine marketing, STP marketing and WeChat marketing.
- 3. Study how to design the Internet marketing plan, especially the selection of marketing tools based on the characteristics of Damei Africa-Red-Agate and the limited marketing cost budget.
- 4. Study how to implement the implementation of Damei Africa-Red-Agate internet marketing solutions, including registration and operation of Official accountss, management of releases, implementation of diversion marketing tools such as Weibo, Baidu Tieba, Tianya Forum and QQ Group, and forwarding on WeChat Moments Implementation of marketing programs such as the management of the time and frequency of graphic information on the WeChat Official accounts, planning and implementation of Online To Offline marketing, and planning and implementation of holiday event marketing programs;
- 5. Summarize and evaluate the implementation effects of WeChat marketing, Weibo marketing, Tieba marketing, and Online To Offline marketing, mainly from the influence of the amount of attention on the WeChat Official accounts, the number of image reading, and the amount of forwarding during the implementation of these programs The trade-offs of marketing tools and diversion tools finally summed up a set of suitable and executable Internet marketing solutions.

#### 1.3 Research objectives

This article hopes to pass the research on the current mainstream Internet marketing at home and abroad. Combining the characteristics of Damei Africa-Red-Agate as jade jewelry. From media marketing, search engine marketing (SEM marketing), soft marketing, database marketing, basic target marketing (STP marketing), direct marketing and relationship marketing, choose a marketing model that meets Damei Africa-Red-Agate. Design an internet marketing plan suitable for Damei Africa-Red-Agate jewelry.

#### LITERATURE REVIEW

#### 2.1 Analysis of Sales Status of Agate Accessories

The reason why Africa-Red-Agate is popular in the domestic jade jewelry market is because it has a red color that is very close to the Southern-Red-Agate. The Chinese adore red, and believe that red represents auspicious celebrations[2].

Damei Africa-Red-Agate jewelry generally weighs about 20 grams. The wholesale price per gram is 40 yuan and the retail price is 125 yuan per gram. The final price of a piece of jewelry weighing 20 grams should be about 2,500 yuan. Of course, since the final pricing power is in the hands of retailers. They decide to raise or lower the final retail price, depending on the color, shape, and meaning of each piece.

 Table 1 Market Competition of Africa-Red-Agate

Туре	Place of origin	Selling price (yuan)	Weight (g)	Price per gram (yuan)	Colour	Picture	Shop
Southern- Red-Agate	Liang shan	12600.00	10.84	1162	Full color full flesh		Taobao Loulan
Southern- Red-Agate	Liang shan	6800.00	13.7	496	Persimmon red		Taobao Southern- Red-Agate Turquoise
Southern- Red-Agate	Bao shan	12500.00	23.6	529	Persimmon red		Taobao YuShang Southern- Red-Agate
Southern- Red-Agate	Bao shan	5900.00	11	536	Full color full flesh	THE TENNESS OF THE PARTY OF THE	JD.COM Ruixiya

Туре	Place of origin	Selling price (yuan)	Weight (g)	Price per gram (yuan)	Colour	Picture	Shop
Southern- Red-Agate	Liangsh an	197600.00	371	532	Persimmon red		JD.COM Manyinuo
Africa- Red-Agate	Mozamb ique	8000.00	24.9	321	Penetrating red		Taobao Wenwan Beijing
Africa- Red-Agate	Mozamb ique	3250.00	14.9	218	Half red		Taobao Lingyuzhai
Africa- Red-Agate	Mozamb ique	3600.00	22.3	161	Half red		Taobao Xiao player's stone workshop
Amber	China	1888	9.5	198	Chicken oil yellow		JD.COM MUjue

Туре	Place of origin	Selling price (yuan)	Weight (g)	Price per gram (yuan)	Colour	Picture	Shop
Amber	China	1918	14.53	132	Chicken oil yellow		JD.COM Oucaini
Amber	China	1458	11.76	124	Chicken oil yellow		Taobao Tian guangxu

#### 2.2 Analysis of the Agate WeChat Official Accounts

In the WeChat public number, the top three of the public number related to agate, the average reading of each article is more than 1500.

Damei Africa-Red-Agate jewelry's WeChat Official accounts goal is to reach the top three position after a year of operation, so the average reading of Official accounts articles is also more than 1,500 people.

#### 2.3 SWOT Analysis of Damei Africa-Red-Agate

- 2.3.1 Advantage analysis:
  - (1) Can take advantage of the Southern-Red-Agate
  - (2) Cost advantage
  - (3) Designed according to material, hand-carved, unique
  - (4) Price advantage
- 2.3.2 Analysis of disadvantages
  - (1) The product is too single
  - (2) Low brand recognition
  - (3) Insufficient marketing efforts
  - (4) The sales channel is too single
- 2.3.3 Opportunity analysis
  - (1) Great demand
  - (2) Insufficient supply of southern red agate
- 2.3.4 Threat analysis

Any sales behavior in a completely competitive market economy will face threats and challenges from competing products. Damei Africa-Red-Agate jewelry, as a low-end jade jewelry, also faces brutal market competition. The current main market competition The opponents are Sengoku Red Jewelry and amber.

#### 2.4 Target Customer Selection and Analysis

In the contemporary economic society, women have become an important consumer entity. According to statistics from domestic authoritative institutions, women control 60% of the domestic consumer market turnover [3]. It can be seen that female consumers have become the main buyers in the consumer market.

#### RESEARCH METHODOLOGY

#### 3.1 Literature research method

Mainly refers to the method of collecting, identifying, and organizing literature on the Literary play market and Internet marketing, and forming a scientific understanding of facts through the study of these materials. Since the emergence and development of Internet marketing in the nineteenth century to today, it has been widely used and rapidly developed. Therefore, it is necessary to collect, identify, and organize documents to summarize the relevant theories applicable to the research topics of this article.

#### 3.2 Interview method

Also known as the interview method, it refers to the basic research method of psychology to understand the psychology and behavior of the interviewee by talking face-to-face with the interviewee. Because the Literary play market has a history of nearly a thousand years in China, and many market rules have become quite mature, but at any time, the times are constantly improving, and the demand and sales models have changed. Therefore, we need to interview some successful merchants through interviews, including Online and offline, making Internet marketing programs more objective and feasible.

#### 3.3 Comparison method

Comparative method is a research method of natural science or social science. It is through observation, analysis, to find out the similarities and differences of the research objects, it is a basic method of understanding things. In the process of implementing the Internet marketing plan, sometimes two similar implementation plans may appear, but there may be more differences in the final results, so only the comparison method is used to continuously select better implementation plans.

#### 3.4 Market research method

The market survey method is a method for enterprises to organize relevant personnel to conduct market survey analysis to determine the promotion effect. This method is more suitable for evaluating the long-term effects of promotional activities. It includes two aspects of determining the investigation item and the implementation method of the investigation law

# 3.5 WeChat Marketing Plan Design

- 3.5.1 WeChat Official accounts operation plan design
  - (1) Official account planning and design
    - 1. Account Settings

The account should be set with a name that the customer can easily remember. In addition, the two-dimensional code is designed to be beautiful, in line with the nature and style of the public platform itself.

2. Column settings

The setting of the column should be based on the positioning of the public account. The first is to focus on the content. The industries and target customers we choose are very subdivided, so we must set the public account column according to the target customers we have previously determined. Second, there must be a section for interacting with fans

#### 3. Auto reply settings

First, pay attention to the relationship between "me and you" so that the user can feel For caring like family and friends, the second is to use humorous language as much as possible, tell users what they can get through the platform, indicate the direction for users, and guide users to get relevant advice.

### 4. User Management

After users pay attention to the platform, they need to be organized into groups; especially for users who are active, highly active, and are likely to be converted into customers in the later period, they can be classified into star-level groups.

# (2) Graphic Design of Public Account

From the perspective of the media, the WeChat public account bears the heavy responsibility of information release and brand image promotion, and at the same time exerts the characteristics of communication, so the content of the public account push of this project can be roughly divided into three categories:

- 1. Promotion and event information: for the purpose of sale
- 2. Information and knowledge such as identification, purchase, collection and maintenance of agate and other accessories
  - 3. Industry news, current events
  - (3) The specification of graphic information design for public account
    - 1. The title design should be attractive;
    - 2. The text must have pictures

No matter how exciting the article is, there will be visual fatigue, and the picture can play a very good role in regulating, so the text must be accompanied by a picture [4].

#### 3. Attach a QR code at the end

#### (4) Push time design

Because the public account can only be pushed once a day, the push time is very critical. After repeated experiments, 1-2 hours after dinner is the largest amount of reading. Because users are more leisure and relaxed at this time, they also have enough patience to view the articles pushed by the public account. At this time, the click-through reading rate is the highest [5].

# (5) Operation strategy of public platform

When we operate the content of WeChat public platform, we must implement three major strategies: brand marketing strategy, interactive strategy and sales diversion strategy.

#### 3.5.2 WeChat friend circle marketing plan design

The marketing design of WeChat Moments is divided into the following parts:

- (1) Edit your personal information.
- (2) Determine the content scope of the information release
- (3) Determine the amount of information released on WeChat Moments
- (4) Determine the time when the WeChat Moments information is released The best time is in three periods of the day:

The first period is 7:00-9:00 in the morning. The second period is 12:00-14:00 noon. The third period is from 19:00 to 23:00 in the evening.

(5) Key assessment indicators of WeChat Moments marketing program

#### 3.5.3 WeChat group marketing plan design

The WeChat group marketing plan includes the following:

- (1) When the WeChat public account has new graphic information, it will be forwarded to all WeChat groups within 1-2 hours after dinner;
  - (2) Frequently interact with friends in WeChat group;
- (3) Each group screens and reads 1 graphic message published by a friend every day, and responds carefully;
- (4) Actively respond to the call of the group owner and opinion leaders in the group, and actively participate in discussing the topics they initiated.

#### 3.6 MicroBlog Marketing Plan Design

The MicroBlog marketing plan mainly has the following points:

- 1. Increase the number of friends on MicroBlog; to increase the number of friends on MicroBlog, you must first become a friend of TA by following a lot of people's MicroBlog, so that TA can also follow me;
- 2. Forward the graphic information of the WeChat public platform through MicroBlog, so that MicroBlog friends can become followers of the WeChat public platform.
- 3. Interact with your friends in a timely manner and respond to your friends' questions after they have blog posts.
- 4. There are three key evaluation indicators for the MicroBlog marketing plan, which are click reading, comment volume and likes.

#### 3.7 Baidu Tieba Marketing Plan Design

The Baidu Tieba marketing plan includes the following:

- 1. Choose a few agate-related Baidu Tiebas and create a high-quality interactive software post. The content of the Baidu Tieba is mainly based on Africa-Red-Agate jewelry photos;
- 2. Then occasionally promote the Damei Africa-Red-Agate WeChat public platform in the post.
- 3. Actively interact with Bar Friends and respond to Bar Friends' questions in a timely manner;
- 4. There is only one key evaluation indicator for the Baidu Tieba marketing plan, which is the amount of follow-up reply.

#### 3.8 O2O Marketing Design

O2O marketing combining online and offline includes two parts: online and offline interactive marketing and holiday event marketing.

3.8.1 Interactive marketing plan design

The main offline design is:

- 1. Cooperating merchants place our Africa-Red-Agate accessories in a prominent position in the store,
- 2. Post the QR code of our WeChat public platform in a prominent location in the store, and attract potential customers to scan the code by scanning the code and paying attention to purchase discounts.
- 3.It is to attract more customers to pay attention to the WeChat public platform through offline cooperative merchants with discounts, quickly accumulate popularity, and increase the influence of the WeChat public platform.

#### 3.8.2 Holiday Event Marketing Design

"Qi Xi•Good things come in pairs", buy one get one free event. The general planning of the event is that any week before the Tanabata Festival (August 9), the content of the event will be reposted in the WeChat Wechat Moments, collecting enough 58 likes, all can participate in the offline merchants to participate in the buy one get one free during the Tanabata Festival activity.

The event marketing plan for the Double Eleven Shopping Festival is relatively simple, mainly using big discounts. The main content of the marketing plan is: All purchases on Double Eleven will be discounted by 40%. And the event is only available for purchase under the antenna on Double Eleven.

#### DATA PROCESSING AND ANALYSIS

#### 4.1 Effect Evaluation of WeChat Marketing Plan

As can be seen from Table 2, sharing the selected Africa-Red-Agate jewelry directly in the WeChat Official accounts received the most reads, followed by the forwarding of the WeChat Official accounts graphic information, and the forwarding of the agate jade collection maintenance knowledge reading least. It seems that fans of Damei Africa-Red-Agate prefer simple and straightforward things.

Table 2 List of reading content of WeChat Official accounts (as of December 31, 2016)

Release date	content	type	Reading volume
October 15,2016	What should be the best sculpture of Southern-Red-Agate?		
October 16,2016	Appreciation of great beauty non red agate works	Appreciation of agate ornaments	2559
October 17,2016	Will south red wear change color for a long time?	Official account forwarding	2993
October 18,2016	Appreciation of great beauty non red agate ornaments	Appreciation of agate ornaments	2689
October 19,2016	Agate collection maintenance	Collect maintenance knowledge	2863
October 20,2016	Southern-Red-Agate is a good choice, a house is indispensable!	Official account forwarding	2191
October 21,2016	Appreciation of great beauty non red agate works	Appreciation of agate ornaments	2446
October 22,2016	Liangshan Southern-Red-Agate, an indispensable part of Southern-Red-Agate.	Official account forwarding	2217

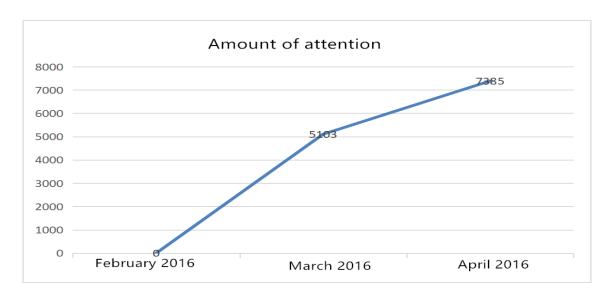


Figure 2 WeChat Official accounts attention in March and April 2016

As shown in Figure 2, as of March 31, 2016, the amount of attention on the WeChat Official accounts exceeded five thousand followers, and on April 30, the amount of attention on the platform exceeded seven thousand followers.

# 4.2 Evaluation of the Effectiveness of the MicroBlog Marketing Plan

As shown in Table 3, the focus of MicroBlog diversion since May is to maintain a 20% increase.

**Table 3** MicroBlog Diversion Flow Meter

Month	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan, 2017	Feb, 2017
Platform focus	5103	7672	10923	13732	35178	60471	68319	75529	88142	97639	105892	114863
Microblog diversion	0	0	2154	2634	3327	3826	4562	5360	6827	7814	9355	11625

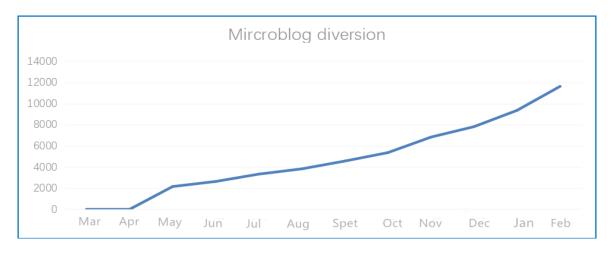


Figure 3 Micro-blog diversion contribution charts

As can be seen from Figure 3, MicroBlog's traffic growth is relatively average, and it has not increased rapidly due to the Tanabata activities implemented in July and August, but it is still a very good traffic marketing tool.

#### 4.3 Baidu Tieba Marketing Plan Effect Evaluation

As shown in Table 4 As shown, the post reply status of Southern-Red-Agate agate bar basically broke through the 2000 mark. In the Southern-Red-Agate agate bar, the post with a larger amount of responses is calculated, and because of this, Baidu Tieba can also Contribute a certain amount of traffic to the WeChat Official accounts.

Table 4 Southern-Red-Agate agate bar post reply list

Release date	Name of post	Responses as of December 31, 2016
June 10, 2016	Africa-Red-Agate Nanhai Guanyin	2882
July 10, 2016	Pure hand-carved jade dragon appreciation	3261
August 10, 2016	Africa-Red-Agate-Wealth and wealth	2136
September 8, 2016	Hand-carved blockbuster appreciation	2152
October 8, 2016	Africa-Red-Agate Guan Yu	3667
November 8, 2016	Africa-Red-Agate Maitreya	2083

# 4.4 Evaluation of the Effectiveness of Online To Offline Marketing Programs

4.4.1 Evaluation of the effectiveness of interactive marketing programs

**Table 5** online to Offline marketing diversion table

Month	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan, 2017	Feb, 2017
WeChat Official accounts attention	5103	7672	10923	13732	35178	60471	68319	75529	88142	97639	105892	114863
Interactive marketing traffic	0	1139	2154	2634	6327	9826	6562	6360	7827	6814	6355	6625

It can be seen from Table 5 that after the implementation of marketing programs such as Wechat Moments marketing, WeChat group marketing, MicroBlog marketing and interactive marketing, at the end of January 2017, the attention of the WeChat Official accounts platform exceeded the target value of 100,000. Successfully reached the expected goal.

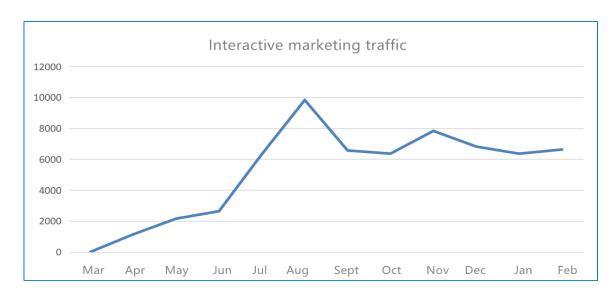


Figure 4 Interactive marketing diversion curve

As can be seen from the interactive traffic diversion curve in Figure 4, the effect of interactive marketing is still very good, and this effect is more obvious during the implementation of holiday event marketing. So it is a very good marketing tool.

# 4.4.2 Evaluation of holiday marketing effect

**Table 6** Statistics of the number of people following the platform during the "Qi Xi•Good things are double" event

Date	New follower number	Cancelled follower number	Net increased follower number	Final follower number	Remarks
7.23-7.29	3689	128	3561	34182	One week before the event warms up
7.30-8.05	5653	312	5341	39523	Event warm-up, strong promotion period
8.06-8.12	6859	231	6628	46151	Official event
8.13-8.19	1884	105	1779	47930	Activity ends

From the statistical data in Table 6, the warm-up of the event from July 30 to August 5 has played a huge role, with a net increase of more than 5000 in a week. The net increase in attention from August 6 to 12 is even more impressive, up to 6628.



Figure 5 sales of Damei Africa Red Agate in 2016

As can be seen from figure 5, with the implementation of the Internet marketing plan, the sales of four dealers in Jingxi continue to grow, and Panjiayuan store still maintains relatively stable sales due to the lack of implementation of the marketing plan.

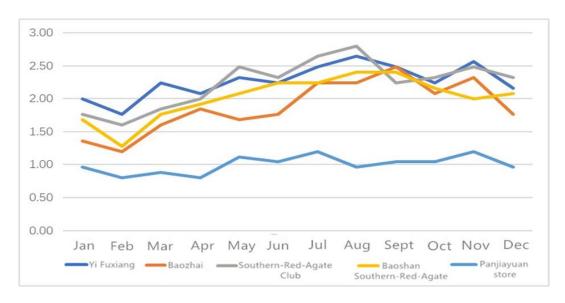


Figure 6 Damei Africa-Red-Agate sales in 2017

As can be seen from Figure 6, due to continued implementation of WeChat marketing, MicroBlog marketing, Baidu Tieba marketing, and Online To Offline marketing interactive marketing in 2017, but no holiday event marketing, overall sales were stable, except for February due to the Spring Festival sales. In addition to the impact, the remaining sales are normal. At the same time, the sales of the four dealers in Jingxi are better than the Panjiayuan store.

#### CONCLUSION

This article makes a bold attempt at the relatively closed agate jewelry market, trying to use Internet marketing to improve consumer awareness and popularity of Damei Africa-Red-Agate jewelry, and ultimately achieve the purpose of increasing its sales.

In order to make the Internet marketing solution operable, a lot of market research and research have been done in the early stage, including the investigation and analysis of the sales status of agate jewelry, the selection and analysis of the target customers of Damei Africa-Red-Agate, and the status survey of the agate WeChat Official accounts And analysis, as well as SWOT analysis of Damei Africa-Red-Agate jewelry, analysis and summary of the current problems of Damei Africa-Red-Agate, determine the problems that Internet marketing needs to solve, and sort out the general design and implementation direction of the marketing plan, And set the expected goals of the implementation of the program.

The initial design of the Damei Africa-Red-Agate Internet marketing plan included Wechat Moments, WeChat Group, Baidu Tieba, Sina MicroBlog, QQ Group, Tianya Forum and other marketing methods and tools, and cooperated with merchants to design Online To Offline marketing. Program. Through the implementation of marketing programs, I found that Sina MicroBlog and Baidu Tieba can continuously increase the attention of WeChat Official accountss, so they can be used as regular marketing programs. The effectiveness of the two major marketing tools, QQ Group and Tianya Forum, is extremely poor, so the implementation will be cancelled after a while. The holiday event marketing program can quickly increase the attention of the WeChat Official accounts, and it is a very effective, unconventional and auxiliary marketing program.

Through the evaluation of the effect of the Damei Africa-Red-Agate jewelry Internet marketing program, it is found that the Internet marketing designed in this article is very important for improving the industry reputation of the Damei Africa-Red-Agate jewelry. I believe that for jade jewelry such as agate, turquoise and amber Internet marketing has certain reference significance.

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# ON THE INNOVATION MANAGEMENT OF ONLINE SUPERMARKET

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#### **ABSTRACT**

As people's life rhythm is getting faster and faster, and the proportion of double-worker families is constantly increasing, people have less and less time to spend their leisure time shopping. The emergence of online supermarkets just met their needs and helped them save time and energy. And with the improvement of logistics, payment and other supporting services, for example: the establishment of major express brands; the large-scale coverage of self-operated logistics such as online supermarkets and Suning.com; and the rise of Alipay, WeChat, and platforms. These make the penetration rate of online shopping still have a large room for improvement, easy payment and other payments but with this good development prospects.

In recent years, examples of failures of online supermarkets are not uncommon. After they have been operating for a period of time, they have been unable to withstand the pressure of funds because they have been unable to make profits. They have to close down and close their doors. Even so, many people still have a lot of interest in this industry, and some Supermarkets are slowly opening up again.

Online electronic supermarket is a new type of B2C e-commerce operation model that uses mobile Internet as the main platform for product display, direct ordering of goods online, and direct delivery of goods offline. The development of e-commerce has accelerated the real-time circulation of various goods. The speed has increased the uncertainty of its sales. The continuous and rapid updating of data makes it difficult for supply chain management personnel to obtain an accurate data to support them to carry out inventory replenishment work, resulting in product out of stock or inventory backlog. Therefore, online supermarkets have put forward a higher level of requirements for inventory management in their supply chain.

This article uses literature research methods and data analysis methods to study Taobao, online supermarkets, Dangdang and other websites are showing people their infinite charm and development prospects with their impressive performance. At the same time, the traditional retail industry has gradually evolved from the original hypermarket model to a B2C online supermarket. People are no longer satisfied with shopping in hypermarket supermarkets in the past, and I prefer to enjoy clicking at any time without leaving home. The mouse can easily enjoy the infinite fun brought by shopping.

This article focuses on the difficulties and problems in the management of online supermarkets, focusing on the following aspects: innovation management of employees, innovation management of goods inventory, innovation management of capital flow optimization and logistics innovation management.

**Keywords**: Internet supermarket; e-commerce; goods inventory; innovation management.

#### INTRODUCTION

#### 1.1 Research background

As early as 2008, the Chinese government strengthened its guiding investment in the field of e-commerce to improve the investment environment of the domestic e-commerce industry and introduce a large amount of funds into the development of e-commerce. Looking ahead, the domestic e-commerce industry will play an increasingly important role in the development of the national economy.

In the rapid growth of e-commerce, B2C enterprises are the most powerful force, and online supermarkets are an important part of B2C. Online supermarkets, as the name implies, are supermarkets opened on the Internet. Since then, they have developed vigorously in China, and they have also spread rapidly among consumers. Many of the original online supermarkets were built on the basis of offline physical stores, allowing consumers to understand and find all kinds of relevant information about the products you sell in supermarkets whenever and wherever they are. Facing the fierce and complex competition in the international market economy environment, we must establish an innovative management concept and explore a new business model with offline plus offline, in order to win greater social and economic benefits.

#### 1.2 Problem statement

This article focuses on the difficulties and problems in the management of online supermarkets, focusing on the following aspects: innovation management of employees, innovation management of goods inventory, innovation management of capital flow optimization and logistics innovation management.

#### 1.3 Research questions

How to achieve: innovation management of employees, innovation management of goods inventory, innovation management of capital flow optimization and logistics innovation management.

#### 1.4 Research Purpose

Since 2001, with the continuous advancement of Internet technology, China's e-commerce industry has achieved unprecedented development. Taobao, online supermarkets, Dangdang and other websites are showing people the infinite charm and development prospects of e-commerce with their impressive performance. At the same time, the traditional retail industry has gradually evolved from the original hypermarket model to a B2C online supermarket. People prefer to enjoy the unlimited shopping brought to customers by clicking the mouse at any time without leaving home. pleasure.

#### 1.5 Research significance

Although the online supermarket is developing rapidly, its success rate is very low, and companies have been under pressure to close down. Even so, we must still believe that e-commerce will become mainstream, and we need to break this situation and find a way to survive for online supermarkets. Based on the above analysis, this article analyzes the online supermarket as a background, and under the current e-commerce environment, it will better strengthen the innovation management of the online supermarket.

#### LITERATURE REVIEW

#### 2.1 Development status of online supermarket

Online supermarkets use the Internet as a display and sales platform to order online. When shopping in online supermarkets, customers first search on the Internet and find the product information they need to buy, and then follow the completed e-commerce order form. And directly send out the relevant information request of the customer when shopping, and finally fill in the customer's account related information at the time of payment or the mobile phone number that supports credit card and other information for online shopping e-commerce payment.

With the rapid development and popularization of mobile Internet and the rapid development of China's e-commerce, shopping online has gradually become a new consumer. As shown in the figure below, the market research and analysis agency reported that the annual white paper data released a few days ago showed that the total transaction volume of China's China's online commodity retail trading market in 2016 has reached more than 1,883.25 billion yuan. Large and large online commodity retail trading market. In 2018, the transaction scale of China's online shopping retail service market in China is expected to reach more than RMB 3835.17 billion, a year-on-year increase of 33.9% over 2017. It is expected that by the end of 2020 this year, the transaction scale of China's online shopping retail service market will initially reach approximately 6.5 trillion yuan per year.

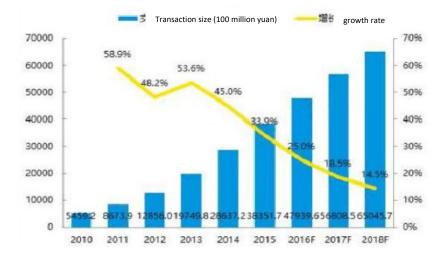


Figure 2.1 Forecast of transaction scale of China's online retail market from 2010 to 2018

The status quo of online supermarkets quickly spread to the "last mile" mark-supermarkets. People have gradually changed their shopping methods. Once they went out to go to the supermarket, now they lie down and brush their phones. The supermarket as a "last mile" gateway has gradually become an indispensable part of people. Many physical network supermarkets, such as RT-Mart and Suning, have changed their strategies and entered the 020 era to divide up the big cake of online retailing.

In recent years, SF has launched Heike, Tmall has launched Tmall supermarkets, Internet supermarkets have launched Internet supermarkets, and so on. Internet supermarkets or Internet supermarkets have sprung up. On the whole, after a long period of development, online supermarkets have launched online sales to achieve 020-style operations, and have established a certain foundation and advantages. They have standardized management from production, procurement, logistics, store operations, etc., and initially established

standardized operation management system. In terms of information management, the current informatization process is being perfected, and major online supermarkets have relatively complete informatization construction. In terms of marketing, more and more one-stop shopping supermarkets, etc., have brought a rich customer base to online supermarkets, and have some stable and loyal customers.

#### 2.2 Problems in the management of online supermarkets

Compared with the traditional brick-and-mortar retail industry, low-cost, good-quality, convenient and fast delivery is the biggest competitive advantage of online supermarkets, and it is also the foundation of its foothold. However, for the online supermarket itself, although it saves space rent compared to the physical supermarket, at the same time, due to the rapidity and uncertainty of online retail, the management difficulty of the online supermarket is exacerbated. Especially the problems often encountered in employee management, goods inventory management, capital flow optimization management and logistics management.

# 2.2.1 The high management cost of online supermarket employees

# (1) Staff promotion costs

DZY adopts the following promotion methods. One is network promotion, such as: WeChat public account, Weibo, etc., need to hire some network promoters; the second is the distribution of flyers in the community and universities, which requires the recruitment of a large number of temporary workers; the third is sponsorship activities to increase visibility, for example: sponsoring college Sports events.

# (2) Large personnel expenses in the distribution center

At present, DZY online supermarket has six distribution centers in the four major districts of ZJ city. The rent of the six distribution centers, the delivery staff and warehouse managers are all a sum of money. And the above-mentioned transfer of inventory in this warehouse is also a big problem.

# 2.2.2 Difficulties faced by the inventory management of online supermarket goods

# (1) Shopping cart problem

In the online supermarket system, the system will automatically lock the number of goods that have been in the shopping cart, that is, it will be displayed as unsaleable. However, the intentional, unintentional, or repeated operation of the customer to add the goods to the shopping cart and finally give up results in extremely inaccurate inventory (more commonly, many customers use the shopping cart as a favorite). Ordering and replenishing the data will result in a backlog of actual inventory and bring unnecessary losses to the online supermarket.

# (2) Customers give up payment after generating orders

The purchase behavior of the customer when the order is generated or finally gives up the payment will also cause the system to automatically lock the number of goods, resulting in inaccurate inventory data, and eventually form the illusion of insufficient inventory or out of stock.

#### (3) The problem of goods allocation between different warehouses

In order to ensure that its logistics distribution coverage is large enough, most online supermarkets will set up several large storage warehouses in a city. Due to system problems, inventory management personnel cannot obtain the specific data of AB warehouses at the same time, and cannot make reasonable warehouse allocations. The end result is that some commodities in warehouse A have fallen below the safety stock and need to be restocked, but warehouse B is still piled up, and the inventory management personnel cannot get the optimal inventory from the global.

#### 2.2.3 The capital flow management system is not perfect

At present, a relatively common phenomenon is that online supermarkets have a great deal of arbitrariness in the use and management of funds, and often do not strictly use the working capital as planned, and the bad phenomenon of serious waste of funds will be more serious. Online supermarkets cannot reasonably create operating income based on the actual situation of the current supermarket management and operation, or the financial management system does not have clear guarantees for the coordination of the current capital flow and the guarantee of the use of funds.

# 2.2.4 Problems in the management of logistics services in online supermarkets

(1) The order is split, causing inconvenience to customers

Many consumers are signing contracts--Jingdong Mall has purchased two or more good goods online, but when checking the order status information of the goods online, one product has been out of the warehouse and the other product The out-of-stock status is considered to be normally out of stock, so the next morning the deliveryman can only deliver a good product, and another out-of-stock product needs to be delivered for another day. inconvenient.

(2) There is a reaction from the customer that the defect in the purchased product is the return of another customer.

The express reverse logistics logistics express service of the online commodity supermarket is actually very convenient, and the delivery time limit is relatively long, but these express goods returned by the company, the online commodity supermarket may not be able to return to the factory after repair, the online supermarket Efforts should be made to continuously improve the previous management work so that consumers can feel and see its continuous progress and growth.

#### 2.3 Strategies for innovation management of online supermarkets

# 2.3.1 Reduce employee management costs

First, the implementation of a physical store storage warehouse automatic correction of replenishment and product correction management system, which is mainly based on a computer automatic correction of replenishment and goods correction system, supplemented by manual operations and automatic correction of goods replenishment goods management system, has greatly improved the company The overall quality and actual work efficiency of all multiple store sales managers and all employees.

Second, redesigning and streamlining the job placement of online store employees not only effectively reduces the establishment of store employees, but also further increases the salary level of store employees as needed. In the past, each network store, regardless of size, had its own network store and supermarket administrator's office, but it was often in its own office on the ground that it was in favor of the store's copywriting needs.

# 2.3.2 Optimization of cargo inventory

- (1) the system records the storage location of goods. After each product is delivered by the supplier, the storage location of the product is positioned and stored in the computer system. This system can achieve such an effect that after the consumer orders are placed online, the system background automatically allocates orders according to the storage location of the goods, then the pickers responsible for each area will receive such orders, greatly improving the picking s efficiency.
- (2) systematize product placement. You can use the principle of classification codes to classify all products based on sales volume. A means good sales, B means normal sales and C means poor sales. All products can be placed according to these three situations. This effect relies on the company's big data, relying on big data to analyze consumers, and analyze and classify products. This can save a lot of costs.

(3) to promote collaborative cooperation between cargo inventory points. The 6 storage centers of the online supermarket are also self-built logistics centers, of which the logistics center headquarters is located in Jingkou District. In addition to the headquarters with 10 delivery staff, other warehouses are equipped with 6-8 delivery staff. After the general order is confirmed and accepted by the system, the goods are picked immediately and then dispatched.

# 2.3.3 Establish and improve the capital flow management system

Online supermarkets must further change their misunderstandings, increase their awareness and emphasis on the use and management of capital flows in online supermarkets, and formulate relevant laws and policies on economic capital flow management in accordance with the actual situation of current online supermarkets and formulate capital flow use and management Management System. The online supermarket must further strengthen and expand the business coverage of the internal risk control fund management mechanism, and timely apply the introduction of the online supermarket internal control management mechanism to the use and management of the online supermarket capital flow.

The corresponding internal control and work management mechanism of the online supermarket should be sufficiently close to the actual needs of the online supermarket and the actual business development needs of the capital flow management work. The focus is on the rational use of online supermarket funds and the flow of funds, and the related responsibilities are clearly defined. People and scope, to ensure that all links are well documented, and to use fair, just and open methods to ensure the reasonable flow of funds and reasonable use of funds to avoid frequent violations. Through the prediction and analysis of the current business development strategy of the online supermarket in the next few years and the current socialist economic development environment, the risks are reasonably avoided, and a solid foundation is laid for maintaining the good and healthy development trend of the online supermarket.

# 2.3.4 Innovative management of logistics services for online supermarkets

# (1) Improve the quality of logistics practitioners

Talents are indispensable for the success of third-party logistics network supermarkets. Therefore, on the one hand, third-party logistics network supermarkets should focus on introducing talents from universities; on the other hand, I must also strengthen their knowledge in the process of work through teaching theory and social practice activities. Learning and theoretical training, always make effective reserves of service technology and management talents for the service management development of new network first-class supermarket service companies' new customer relationships, according to the actual service needs of different network first-class supermarket enterprise customers, construction and research form a Highly dynamic and balanced new network first-class supermarket enterprise customer relationship service management mechanism.

(2) Build a customer service management evaluation system for online supermarkets

Establish a system based on the satisfaction and quality evaluation of customers by online supermarkets, so that customers and operators of online supermarkets can accurately find out the shortcomings of their operations and management, so that they can be purposefully improved and perfected. The most authoritative logistics research institution for logistics evaluation of service satisfaction and quality is the research results of logistics experts led by Mentzer and others from the University of Washington and the University of Tennessee in the United States. They summarized and established the perspective of consumers and customers in the research. The model of logistics service satisfaction and quality evaluation jointly started is shown in Figure 4-1.

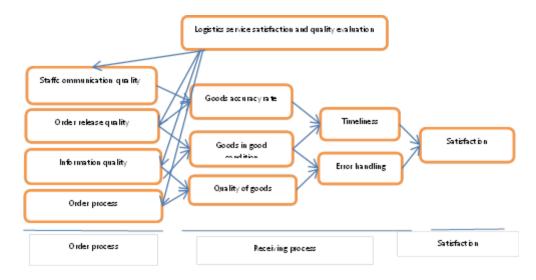


Figure 4-1 Logistics service quality evaluation model

The initial 020 mode was to complete online search and payment, and offline experience, so that separate online and offline gradually merged together, and there was a trend of developing a new mode of E2E, that is, terminal to terminal. The characteristics of the 020 in the supermarket industry include high consumption frequency, closeness to a wider range of public life, and higher customer loyalty rates, so the market prospect is better. So far, the operation of the supermarket industry 020 still provides a lot of experience and lessons.

#### **METHODOLOGY**

#### 3.1 Research methods

#### 3.1.1 Literature Research

This article is mainly through the Chinese Journal Network and other network means and libraries to query materials and documents, which can provide an important academic theoretical research basis for the study of this article, and will also have an important reference enlightenment and guiding role for the main research theoretical methods of this article.

#### 3.1.2 Data analysis

Collect and analyze the data from the survey to draw relevant conclusions.

#### 3.2 Research limitations

- 3.2.1 At present, the development time of online supermarkets is shorter and the scope is smaller. Many data are not representative, and some indicators in the article have not been refined, resulting in an incomplete analysis of the innovation management of online supermarkets.
- 3.2.2 The optimization suggestions are only for the management factors that will appear; there is no systematic comparison with domestic network supermarkets.

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# RESEARCH ON THE IMPORTANCE OF SELF-MANAGEMENT OF COLLEGE STUDENTS UNDER THE BACKGROUND OF POPULARIZATION OF CHINESE HIGHER EDUCATION

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# **ABSTRACT**

This article cuts into the background of the era of popularization of Chinese higher education and analyzes the importance of self-management of college students in this era. From self-management of college students is an inevitable requirement for the realization of all-round personal development, self-management of college students is an inevitable requirement of social development and The self-management of college students is an inevitable requirement of the management model reform. Three aspects have been analyzed and elaborated. The importance and effective ways of self-management ability of college students are analyzed. 1. In terms of mental health, comprehensively cultivate the ability of self-adjustment and self-management, so that college students can better adapt to the needs of social development and individual development.

**Keywords:** Popularization of higher education; self-management of college students; change of management model

Since the beginning of the 21st century, with the rapid development of the popularization of Chinese higher education, the number of college students has increased dramatically. Under such circumstances, college students face unprecedented fierce competition. Under this environment of the times, college students must adapt themselves to education reform, the needs of the times, and social development. Self-management is very important for contemporary college students, which is mainly reflected in three aspects.

# 1. Self-management of college students is an inevitable requirement for the realization of all-round personal development

The overall development of a person includes extremely rich connotations: one is the overall development of the individual's "category"; the second is the full development of the individual's "social characteristics"; the third is the full development of the individual's "personality". To show the richness of people's "category characteristics", "social characteristics" and "personality", and to mobilize enthusiasm, self-management is necessary. The all-round development of man is the ideal goal and the highest principle throughout self-management activities. Only through self-management can we reflect the individual's freedom in continuous creative activities, cultivate and cultivate all kinds of abilities, and finally achieve self-worth All-round personal development.

1.1 The self-management of college students is an inevitable requirement for the reasonable establishment of self-development goals.

The overall development of an individual must have a certain goal orientation. Only through self-cognition and specific self-design can the goal of self-development be rationally established. For college students, the goal determines the fundamental direction of their overall development. Only through scientific and reasonable self-management activities can

we truly clarify our strengths, deficiencies and potentials, and how we should survive and develop. The key issues that determine the development of life; only through rational design of the ultimate goal of self-development Only in this way can we formulate the overall goal of self-development and practical development goals at all stages.

1.2. Self-management of college students is an inevitable requirement for practicing the goal of self-development.

1.2.1 Self-management is the need for self-improvement of college students

Fundamentally speaking, human self-improvement is carried out in the process of constantly and properly resolving self-contradictions. Human self-consciousness is composed of material self (individual's awareness of their own body), social self (individual's awareness of their position and role, rights and obligations in social relations), and spiritual self (individual's awareness of their own psychology). Self-consciousness will be divided into subject self, object self, ideal self and real self. The subject self constantly recognizes and transforms the object self; the ideal self constantly evaluates and shapes the real self. College students must self-learn, self-reflect, self-regulate, self-regulate, and self-control through self-management in order to resolve the contradiction between subject self and object self, ideal self, and real self, and correct their psychology and behavior in accordance with their comprehensive development goals. In order to make the relationship between all aspects of self-development in the best condition, effectively promote the self-improvement of individual college students.

1.2.2 Self-management is the need for college students to create self-worth

The value of college students is embodied in the knowledge and abilities they possess, as well as the good psychological, moral, ideological, political, and physical qualities that can condense, activate, and exert these knowledge and abilities to create value for society. Self-management is an effective tool and means for personal productivity and self-value creation. For college students, through effective self-management activities, they can effectively expand their own value-forming chain and continuously improve their personality qualities. Through self-management, college students can better allocate and integrate their own internal resources such as values, time, psychology, body, behavior, information, and create higher self-worth.

1.2.3 Self-management is the need for college students to realize themselves

Maslow believes that the need for self-realization is the essential need of man. According to his point of view, for a person to have a complete human nature, his basic needs and transcendental needs must be met. "Only when we are fighting for what we lack, when we want to get what we do not have, when we accumulate our own strength in order to fight for this desire, will we have all our skills. Exhibit to the maximum extent. " From this we can see that self-management is the guarantee and concrete embodiment of college students 'self-realization. The process of college students' self-realization is the process of continuous self-management.

1.3 Self-management of college students is an inevitable requirement for self-achievement

Individuals want to achieve comprehensive development and achieve success in life, they must rely on how to exert their own advantages and achieve self-worth, relying on conscious self-management to obtain. Self-management is an inevitable requirement for self-achievement. Fundamentally speaking, the overall development and success of a person does not entirely depend on whether a single indicator of intelligence, emotion or personality is superb, but on the degree of organic integration between its various indicators. This organic combination requires High self-management ability. For contemporary college students, if they have high self-management ability, they can arrange various tasks reasonably and effectively, and they can objectively understand others and correct themselves and their

positions. By being able to arrange yourself in a place where you can make the most contribution, you can greatly improve your chances of success in your career and life.

# 2. Self-management of college students is an inevitable requirement of social development.

Today's human society is an era of knowledge economy, and knowledge has become a key factor influencing the development of social productivity. One of the most remarkable characteristics of the knowledge economy society is the sustainable development characterized by the production, distribution and use of knowledge. In the knowledge economy society, great changes have taken place in terms of labor force structure, production factors, enterprise organization forms, and management models. The development and transformation of society urgently need to comprehensively cultivate the self-awareness, self-planning, self-motivation, time management, self-career choice, self-decision, self-communication, self-learning, self-control, etc. Self-management ability.

2.1 Self-management of college students is an inevitable requirement of labor force and its structural changes.

In the knowledge economy society, the structure of the labor force has undergone unprecedented changes-from manual laborers who do not need skills to knowledge laborers. Fundamentally speaking, knowledge workers have the following four main characteristics. It is precisely because of these four characteristics of knowledge workers that they want to achieve better development; they must carry out effective self-management.

First, knowledge workers possess important means of production and store their own knowledge. Knowledge workers who are originally resource managers are required to have comprehensive self-management capabilities such as self-awareness, self-planning, and selfdecision. In order to effectively allocate self's knowledge resources, the mobility of knowledge workers is enhanced, and the phenomenon of "job-hopping" is quite common in today's social workplace. "Knowledge makes resources more fluid. Unlike manual workers, knowledge workers are familiar with production methods themselves, and their knowledge is contained in their own brains and can be taken away at any time." Knowledge workers 'selfdevelopment and career positioning Responsibilities must be borne by individuals, answering questions such as "What responsibilities do I need to take? What kind of work can I do now? What experience and knowledge and skills do I need to accumulate now" must become largely Personal responsibility. From this perspective, we can think that the work of knowledge workers is for themselves. Therefore, college students must do a good job of selfmanagement, clarify their own advantages and potentials through correct self-cognition, make reasonable self-planning, and clarify their professional occupations, so that their knowledge resources can produce the highest efficiency in order to obtain fierce employment competition Favorable position.

Second, knowledge workers have a strong motivation to achieve. Knowledge workers are required to have strong self-learning ability, self-innovation ability, self-regulation and self-improvement ability. Compared with other types of laborers, knowledge workers emphasize the realization of self-worth, more strongly expect to be recognized by society, are more willing to engage in challenging and creative work, and overcome difficulties as a way to achieve self-worth. Knowledge labor can neither use quantity nor cost to determine its meaning, but only use results to determine its meaning. From this we can see that the achievement and value realization of knowledge workers can only be evaluated by efficiency and contribution. According to Peter F. Drucker, the father of modern management, personal self-achievement and development depend to a large extent on the attitude of paying attention to contribution. People who can ask themselves "what is the greatest contribution I can make to the performance of the organization" are actually asking "what kind of self-development

do I need? What knowledge and skills must I master in order to contribute? What should I do at work Strengths? What standards should I set for myself? "From this perspective, knowledge workers want to become the talents that society needs, they must constantly transform knowledge into value. Therefore, college students must have strong learning and innovation abilities, constantly challenge themselves, surpass themselves, and constantly create knowledge with knowledge in order to maintain self-efficiency and competitive advantage, and realize self-worth.

third. The average working life of knowledge workers is longer. Knowledge workers are required to learn for life, have the ability to manage their second half of their lives and have the ability to engage in several occupations. Since the 1970s, the average life span of enterprises worldwide has been shortening. In the United States, an average of 62% of companies survive less than 5 years, and the number of companies with a lifespan of more than 20 years accounts for only 10% of the total. Only 2% of companies can survive for 50 years; only 10% of high-tech companies in the United States can survive. 5 years. From an objective point of view, the actual working life of knowledge workers is much higher than the average life of an enterprise. Therefore, the life of a knowledge worker must be prepared for more than one job. From this perspective, as knowledge workers, college students must consciously perform self-management, cultivate self-learning, self-improvement and other aspects of self-management ability. Only in this way can they maintain their competitive advantage.

Fourth, the labor process of knowledge workers is difficult to monitor. Knowledge workers are required to have strong self-discipline, self-decision, and self-control capabilities. In a knowledge economy society, knowledge workers usually engage in thinking activities under a flexible work system, and their labor processes can occur at any time and place, making it difficult to monitor their work. As Drucker said: "Knowledge workers cannot be treated with strict supervision and detailed guidance, only with help ... No one knows what the knowledge worker is thinking, but it is his particular Work, thinking is that he is doing 'work.' "Knowledge workers often produce knowledge, creativity, and information, rather than material products with a certain effect. Their working hours and working locations are not completely fixed, but they It is indeed the actual decision maker in the implementation of various tasks. As a knowledge worker, college students must be clear that they are their own managers, exert subjective initiative, self-restraint, self-motivation, and self-regulation, and accomplish various tasks through self-management.

2.2 Self-management of college students is an inevitable requirement for changes in the organizational form and working system of enterprises.

In the era of knowledge economy, the integration of production means (human knowledge and skills) and labor force has inevitably led to the transformation of production (work) and its organization, and the decentralization of production (work) and its organization. This is manifested in the following aspects.

First, the number of self-organizing companies is increasing.

Second, the organizational structure is getting flatter-matrix organization, team organization based on self-management team, network organization (virtual enterprise), etc.

Third, flexible working hours.

Fourth, work place flexibility.

The so-called self-organized enterprise refers to an organization that does not need to have external instructions and forms an orderly structure in a coordinated and automatic manner according to certain rules of mutual understanding. In self-organizing enterprises, "colleagues" replace "employees", and everyone works for their own achievements and is the "head of the family" of the enterprise. At this stage, more and more college students in my country choose "self-organized enterprises" to start their own businesses.

The so-called flat organization refers to a compact horizontal organization established by breaking down the company's top-down vertical management structure, emphasizing the simplification of the management level, the increase of management scope and decentralization. The purpose of flattening is to make the organization flexible, agile, flexible and creative. In the era of knowledge economy, if enterprises want to effectively reduce costs and improve efficiency, they must maintain their competitive advantage, and the flattening of their organizational structure has become an inevitable trend.

In contemporary society, knowledge workers obtain labor objects-knowledge and information from the Internet, and use labor tools-personal wisdom and creative thinking to create new knowledge, mostly for remote office, which makes working hours and places Restricted again, the work that could have been done and completed in factories, workshops, and offices at a fixed time can also be completed at other times and places.

In summary, we can see that the decentralized organization of production in the knowledge economy and society, and the flexible working system, etc., place higher demands on the self-management capabilities of workers. In this age environment, college students must have strong self-management ability, especially self-decision-making ability, self-innovation ability, and self-regulation ability in order to adapt to social development.

# 3. Self-management of college students is an inevitable requirement for the reform of management model.

In the era of knowledge economy, the management in society has changed from "how to increase work results and improve work quality through machines" to "how to increase work results and improve work quality through manpower". In contemporary society, knowledge workers have become the most important part of the group of workers. The term "manager" generally refers to knowledge workers, managers and professionals. Due to the special nature of their positions and knowledge, Make some decisions that affect the overall performance and results in the work ... Anyone who makes a decision can be called a manager. The correct definition of managers should be those who apply knowledge and achieve results. Modern management focuses more on "mobilising" rather than "organising". In a knowledge economy society where knowledge workers are managers, managing themselves becomes an important part of management. Only when individuals maximize their potential can organizations achieve better development. Since management responsibility is based on individuals, it is especially important to emphasize selfmanagement. All management effects are ultimately determined by the employees themselves, and the employees 'individual self-management determines the management efficiency of today's social organizations. For contemporary college students, they must have sufficient self-management capabilities in order to better meet the needs of modern management models.

3.1 Self-management of college students is an inevitable requirement that reflects the essence of higher education.

In contemporary society, college education is the last threshold to train college students to enter the society as knowledge workers. In the development process of human society, universities mainly exist as a space for the continuation and development of civilization to cultivate independence with deep humanities, innovative consciousness, rational spirit, comprehensive quality, professional knowledge, and value creation for society. Individuals are the goal of education. Being good at self-management will be one of the most basic abilities and qualities that college students must have to successfully learn and face various challenges in the knowledge economy society. The self-management of college students is an inevitable requirement for the development of knowledge economy to improve the quality of higher education in my country.

3.2 Self-management of college students is an inevitable requirement to improve the quality of education.

Real education is self-education education; self-education is the purpose and end of education. To allow students to learn to manage themselves, school education should focus on training students to have self-management and self-restraint capabilities to meet the needs of future social development. At the current stage, an important purpose of comprehensive quality education advocated by our country is to cultivate the ability of college students to "self-learning, self-education and self-development". The development of this ability must be based on the improvement of college students' self-management ability.

In essence, education is a social activity to cultivate people. In order to better cultivate talents, education activities must make corresponding changes in all aspects with the development of the times. In the era of knowledge economy, knowledge workers must have the right self-management capabilities in correct self-awareness, self-planning, self-learning, self-decision-making, self-regulation, and self-improvement. Fundamentally speaking, to achieve better educational effectiveness, it is necessary to continuously strengthen the students' self-management and self-education abilities. At the current stage, the self-management of college students is an important part of strengthening the quality of quality education in my country's higher education. Therefore, in the development of higher education in our country, we must attach great importance to the cultivation of college students' self-management ability, so that college students can learn to learn independent thinking and free creation, and clearly create goals and paths to realize their own life value and social value. Only in this way can the essence of higher education be reflected fundamentally.

3.3 Self-management of college students is an inevitable requirement to improve the quality of university education.

For a long period of time, my country's higher education has placed too much emphasis on professional education and the construction of students 'professional knowledge systems. The cultivation of students' comprehensive qualities and abilities has been largely ignored, and there are serious problems in the quality of higher education. Since the end of the 20th century and the beginning of the 21st century, my country has implemented a policy of enlarging enrollment of universities. From 1998 to 2018, the number of enrollment of universities in my country has increased from 1.08 million to 8.5 million each year. On the one hand, "expanding enrollment" in universities reduces the market value of university diplomas, and also brings about problems such as lack of university spirit and serious humanistic crisis. Therefore, self-management of college students is an inevitable requirement for improving the quality of university education.

To sum up, contemporary society has very high requirements for human self-management ability. Especially in the context of the popularization of Chinese higher education, the importance of self-management of college students is self-evident. High-intensity learning pressure suppresses the students' early interests and specialties, and the level of self-management cannot be exercised or improved. Therefore, we must focus on improving the self-management ability of college students from the perspective of thinking, behavior, habits, and methods On the one hand, emotional control, and mental health comprehensively cultivate the ability of self-adjustment and self-management to better meet the needs of social development and individual development.

#### CHINA'S AGING RETIREMENT AGE AND HUMAN CAPITAL

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#### INTRODUCTION

#### 1.1 Background of the study

The first comprehensive "Global Aging and Health Strategy and Action Plan" (GSAP) (No. 0) The first draft was circulated by all parties until August 2015.

The parties updated based on about 200 detailed plans put forward in September 2015, and this document was finally formed. This is draft one.

Draft 1 will further complete multi-party consultations in October 2015, including a global consultation meeting between WHO Member States and other stakeholders, held from October 29-30, which will continue to refine and improve the draft.

In November 2015, further updates will be completed based on supplementary information.

The purpose of the Global Public Health Action Plan is to clarify the goals, strategies and activities that WHO (Member States and the Secretariat) should adhere to, and to develop them as a global public health action framework.

For aging and health-related operations to succeed, non-governmental actors such as government departments, civil society, the elderly themselves, public and private institutions, and other global and regional entity organizations must also make important contributions.

In short, GSAP focuses on global action and aims to build a global vision that WHO cannot achieve independently.

#### 1.2 Problem statement

The vision proposed by GSAP is to build a world where everyone can age healthily. The proposed timetable is to achieve a healthy aging of ten years (2020-2030) through five-year (2016-2020) efforts. Since most of the internationally available evidence is still biomedical evidence from a limited number of countries, this strategy and action plan recommends that within five years, it is committed to further promoting the commitment of all parties and collecting evidence of effective action in various environments. And promote healthy aging from multiple angles. Considering that many governments and stakeholders need to make quick decisions and urgently need timely guidance on policy development, investment, and intervention measures, GSAP also suggests areas where action can be taken.

The definition of "healthy aging" is the process of maintaining and developing the functions that enable the elderly to live a happy life. Head

The standard is a happy life, which is a holistic concept that contains all the elements and components of life and people's attention. Healthy aging is not a reflection of individual motivation and success, but a reflection of how society enables people, especially the elderly, to play their due role and accomplish what they consider important. There are many aspects of happiness, which requires the joint efforts of multiple departments. GSAP also recognizes that health is an important aspect of happiness, and the health system plays a vital role in healthy aging in all sectors.

This definition is based on the view that the function of an individual reflects its interaction with its environment and its support for healthy aging. Moreover, everyone should have the opportunity to achieve healthy aging in a supportive and promotional environment,

even when the individual suffers from multiple diseases or when the intrinsic ability declines (see section 4). In this way, the theoretical basis of healthy aging is consistent with the basis of overall well-being. It is the response of a social ecological model, the result of the accumulation of social determinants of health and the advantages and disadvantages of the entire life. Actions to promote healthy aging need to be completed within a multi-domain and multi-level framework (including biological, sociological, ecological, and environmental determinants, at home, communities, cities, countries, regions, and globally). Moreover, there are multiple government departments and different mechanisms in various countries that can participate in the coordination of policies related to aging, aging and health, and the health sector usually plays an important role.

As a specialized health agency of the United Nations, all parties expect WHO to become a leader in health issues. This GSAP will explain more clearly how health policies (the health content of all policies) promote multisectoral actions, and how the health system can better promote healthy aging by leading actions or supporting actions in other sectors. In addition, healthy aging partly reflects the health status of the elderly, especially the intrinsic ability (see Section 4), and partly reflects the social response to ensure the functioning and happy life of the elderly with different abilities.

This view proposes a method for formulating comprehensive policies and actions in one or more countries. Healthy aging clearly shows that health is not just about having no disease, but aging is a precious process in life. In addition, GSAP also confirmed that health and other social systems have made corresponding contributions to healthy aging. Within the health sector and the entire health system, unified policies and regulations should be formulated, financial mechanisms and work teams (full-time and non-full-time) should be established to provide services that meet the needs and rights of the elderly population. WHO recognizes that population-based clinical services include health promotion, prevention, treatment, care, rehabilitation and conservative treatment. From the perspective of personal happiness, GSAP recognizes that values will change at different stages of life, and the responsibility of society is to meet the different needs and rights of the elderly in a fair rather than discriminatory manner.

The final adoption of this strategy and action plan (see Box 1) does not mean that it is confirmed in advance that healthy aging can be achieved in the next ten years, but that the representatives agree to consider and embark on the preparation of action commitments for the next ten years and maintain their Consistent timetable for development goals (see Section 6.3). This process is likely to require the participation of Member States and the elderly themselves, in cooperation with stakeholders in multilateral government and non-governmental sectors, including the United Nations and its professional agencies and other development and implementation partners, through concrete actions to effectively Pursue this goal

#### **1.3 Research Question**

Promote healthy aging in various countries
Create an environment that cares for the elderly
Adapt the health system to the needs of the elderly population
Establish long-term care systems (families, communities and specialized agencies)
Improve the measurement, monitoring and research level of healthy aging

#### 1.4 Significance of Research

This GSAP has studied other regional frameworks and contents, and expanded and designed relevant strategic goals and actions on this basis. The existing five regional frameworks have many things in common, including focusing on strengthening the health system; promoting multi-sectoral and intersectoral cooperation and establishing an

environment that cares for the elderly; ensuring the provision of high-quality comprehensive health and social services for the elderly without discrimination Wait. Although countries in the same region have similar characteristics, the demographic characteristics of each country, the speed of aging, the composition of government departments to deal with population aging and health issues, and the priority of action are varied. GSAP recognizes that fruitful cooperation can be established between regions and countries.

The actions recommended by GSAP include the contents of recognized strategies and well-known methods and platforms, such as "Health for All", "Social Determinants of Health", "Caring for the Elderly Cities and Communities" (see Box 3), etc. It also includes existing and developing WHO strategies, declarations and action plans in areas such as human resources for health, people-centred comprehensive care, dementia, mental health, and non-communicable diseases that are important to the elderly (including Prevention of health problems, early detection and diagnosis, management and treatment, etc.).

#### LITERATURE REVIEW

# 2.1 Challenges Facing the Application of Big Data in the Agricultural Product Supply Chain

Looking ahead, GSAP is confident that its strategies and actions will promote the achievement of the "sustainable development goals" (3) (SDGs), which are a set of comprehensive and indivisible global sustainable development priority goals, especially goal 3: "Ensure a healthy lifestyle and promote the well-being of all ages."

Non-governmental participants and multilateral entities

The role of the government and its policies is critical, just as the elderly make their own decisions and actions. Civil society and other organizations and associations are also major stakeholders and contributors to healthy aging. Many organizations have made important contributions in this area.

These organizations include global, regional and national partners in a wide range of fields, such as the International Helping Society and the International Alliance on Aging; associations that target specific situations or provide specific services, such as Alzheimer 's Disease International and International Hospice Association with palliative care; organizations that embody professional or special advantages, such as the World Medical Association and the International Union of Obstetrics and Gynecology; organizations representing health promotion and patients and communities, such as the International Union for Health Education and Health Promotion and the International Union of Patient Organizations, etc.

In addition to WHO, other multilateral entities and some international departments play important roles through the United Nations and its professional agencies, as well as other large global and regional institutions such as the World Bank, the Organization for Economic Cooperation and Development, the African Union, etc.

The Global Strategy emphasizes the importance of "healthy aging" as a public health priority area by proposing a general vision, while stressing the need for Member States to develop improvement plans and strengthen their financial sustainability, thereby enhancing the value of global commitments. The two will work together to promote the active participation of partners in a wide range of fields and the elderly themselves, and also help to share the effective practical experience of promoting healthy aging (including the formulation and implementation of content, policies and plans) to further Improve national, regional and global related work.

Individuals and families

We all hope that we can age healthily, and hope that our family and friends will do the same. The content of this GSAP requires the participation of the elderly, recognizing the need to help their families and informal caregivers, and calling for meeting their expectations. Although governments have the responsibility to formulate policies and establish corresponding implementation systems, the elderly, their families and other caregivers also play a vital role.

On the one hand, most elderly people want to gain autonomy to make decisions and do what they consider important, even for some people, this means having family members and caregivers act on their behalf in their interests. In many countries, the elderly are still actively involved in community-changing activities and related political activities. Determinants of healthy aging and well-being include taking responsibility and pursuing dignity, such as achieving self-care at any possible time and place, and can also include joining self-help organizations of the elderly, younger or more capable elderly in the organization can help age Older or older people with reduced capacity. There are many similar examples in high, middle and low income environments.

On the other hand, healthy aging also means that the elderly should be in a supportive environment that promotes "healthy aging"-such as promoting and allowing physical activity; ensuring safety at night; transporting elderly with limited capacity; in media and entertainment activities China celebrates aging; it has a fair participatory process that does not exclude the elderly, such as deciding how to use scarce resources, such as determining which resources should be included in the process of everyone 's health plan; and providing fair social security throughout the life course. The family and other caregivers of the elderly should also be in such an environment because they reasonably and legally need the help of systems and mechanisms that value their social and economic contributions, providing them with information and guidance so that they can become better caregivers By. This means that family members who are responsible for care, usually women, are able to pursue other life goals.

The next step of the job

Once adopted by the WHO management agency, GSAP will become a living document: the important content reached by many parties will be reflected in the final draft, and the content of some annexes may be continuously updated to reflect the relevant knowledge and work implementation. Make progress and ensure that work is progressing towards recognized goals (see box 4). New information and progress can be seen on the WHO website and will be used for mid-term and final evaluation of the work. In addition to participating in the formulation of action plans, stakeholders in various countries, regions, and the world are responsible for the implementation of specific actions, transforming the action plan into a detailed operation plan (update the action plan and operation plan in time when new information appears), and mobilize relevant Resources ensure that the vision of "healthy aging" comes true. Achieving this goal requires new knowledge and efforts by countries to innovate and change traditional ways of working. The WHO Secretariat will work at multiple levels (national, regional and global), advocate and promote capacity building, and organize and promote stakeholder participation to facilitate the implementation of the agreement by Member States.

# 2.2 Opportunities for the application of big data in the agricultural product supply chain

Aging population

Between 2000 and 2050, the proportion of the global population over 60 years of age will double, from 11% to 22%.

The absolute number of people aged 60 and over is expected to increase from 901 million in 2015 to 1.4 billion in 2030 and 2050

Of 2.1 billion, and is expected to exceed 3.2 billion in 2100. In 2050, 34% of the European population will be over 60 years old, and this proportion will also reach about 25% in Latin America, the Caribbean and Asia. Although most parts of Africa have the youngest age composition, there is still an aging trend. It is expected that the proportion of Africa's population aged 60 years and over will increase from the current 5% to 9% in 2050. In addition, the growth of the elderly population will be mainly concentrated in areas with low economic development (United Nations DESA. World Population Prospects: The 2015 Revision, Key Findings and Advance Tables).

Longevity is our precious wealth, but the benefit of longevity depends on a key factor: the health of the elderly. If people are in good health for an extended period of time, their ability to do things is almost the same as that of young people. But if the prolonged life is always accompanied by a severe decline in mental and physical strength and no support, it will have a more serious negative impact on the elderly and society.

The latest WHO estimates indicate (4) that the life expectancy of the global 60-year-old population since 2013 is 20 years, and

Compared with 2000, it has increased by 2 years. Unfortunately, although it is generally believed that the extension of life is often accompanied by the continuation of health, there is little evidence that the elderly today are healthier than their parents at the same age or that all elderly groups can continue to be healthy (see box 6).

This may not be the case. Many health problems faced by the elderly are related to chronic diseases, especially non-communicable diseases (NCDs), including those whose incidence increases with age, such as dementia and frailty. Most of these diseases can be prevented or delayed by taking healthy actions with the support of the physical environment and policy environment. Other health problems can be effectively controlled, especially if they are discovered early. Health and social systems can work together to maintain and strengthen internal capacity (see Section 4); they can also reverse the trend of aging or weakness (5). For the elderly with declining ability, a good support environment and health and social service system, including the contributions of the elderly and their families, can maintain their dignity, enable them to live independently and normally, and continue personal development. However, the real world is far from ideal, especially for poor elderly and socially disadvantaged groups.

The response of an aging population requires a comprehensive public health response. Although the current debate on the content of the response has been reduced, the basis for taking action is still limited. But this does not mean that we are at a loss. In fact, there is an urgent need to take measures to deal with aging.

Opportunities and Challenges

Aging is a complex and challenging problem, full of controversy and uncertainty. Although international treaties have always emphasized that aging has received attention and attention, there are many more things we can do to meet the challenges and improve the health of the elderly. To clarify this complexity, the draft 0 version of GSAP is heavily based on the Global Report on Aging and Health, which was first published by WHO. The report summarizes the current understanding of aging and health, provides basic principles for the focus of healthy aging, and provides accurate evidence for countries at all levels of development to guide the implementation of effective measures. It also pointed out the main existing challenges and misconceptions, and proposed a comprehensive response plan and potential policy opportunities for the problem of population aging. The draft version 1 of GSAP (that is, this document) further improves this, including:

Maximize the functioning of the elderly and deepen the reform of their living environment, health and social system,

Promote the realization of the well-being of the elderly. Current health, healthcare, work, society, education, transportation,

The leisure, engineering, and residence systems generally target people aged 15-55. But as the global population ages, the situation will no longer be the case. The health system is generally dominated by emergency care and the treatment of individual diseases, but it ignores the inequality, discrimination and limited access to health services for infectious diseases and chronic diseases. These services are usually only for children, people of childbearing age or have formal workers, but ignore the youth and the elderly.

The aging of the population and the extension of life expectancy have become an important feature of the emerging world. In order to adapt to the increase in the average age of the population, all the above sectors need to develop in a new way simultaneously. Policy priorities and actions to promote social and institutional reform include:

Countries participating in national dialogues clearly understand the meaning of healthy aging from a national and global perspective, and its significance to the elderly in a diverse context, and determine the coordinator and responsible party of the national aging policy;

Make multi-sectoral cooperation become holistic and joint;

Conduct a systematic assessment of the needs of the elderly to determine whether the quality of health and social services is adequate and whether there is a financial burden;

Long-term planning and designing future scenarios for agreed goals.

Based on an understanding of the evidence and background, these policies are important steps for each country to improve the health system, and they are also important for caring for the elderly and achieving healthy aging for all.

Many common ideas and subjective assumptions about the elderly stem from outdated stereotypes. This recognition limits me

Our ability to recognize problems, ask questions and seize opportunities for innovation. Treating the elderly in a prejudiced manner can lead to discrimination against individuals or groups based on age alone. This phenomenon is called age discrimination. Now age discrimination is even more common than sex or racial discrimination, and various types of discrimination can cross each other, such as discrimination against older women.

As more and more common. The focus of policy formulation should be to combat such discrimination and eliminate restrictions on the continued participation of older persons in society Barriers to activities and contributions.

The elderly have diverse characteristics. For example, the physical and mental levels of some 80-year-olds may be

Many young people are quite. In addition, the physical and mental power of the elderly is only part of their potential. What they can actually do (their functions) depends on the results of their interaction with the environment. The formulation of policies should enable as many people as possible to enjoy healthy aging. However, there are still many elderly people who are younger

There will be a marked decline in ability. For example, some people in their 60s may need the help of others to perform the most basic activities (see Box 7). A comprehensive public health response to the problem of population aging must also meet the rights and needs of people with a marked decline in intrinsic capacity.

## 2.3 MoreFuture Prospects of Application of Big Data in Agricultural Product Supply Chain

The importance and challenges of informal family care: new fair-oriented policies are needed

In low-, middle-, and high-income countries, many families provide informal home care. The main challenge is to address the gender and economic inequalities of caregivers. Approximately 10% of the members of the World Economic Cooperation (OCED) are providing family care (6). However, there are still significant inequalities in social, political, environmental and economic aspects, which particularly put a lot of burden on women. Therefore, the policy to promote "in-situ pension and at-home pension" must establish relevant mechanisms to express importance and support for the contribution of family care workers. For example, at least 43.5 million adults aged 18 and over in the United States (19% of the total number of American adults) are providing unpaid care for family members or friends. Most caregivers are women (67%), with an average age of 50 years, providing approximately 20 hours of nursing services per week, and the duration is about 4 years (7).

Japan 's social norms take care of the elderly as a woman 's duty, especially daughter-in-law, and now unmarried children are more common (8). Since the introduction of the long-term care policy in Japan in 2000, Japan has had a positive impact, providing a better choice between family care and institutional care. However, the implementation of these policies may not necessarily reduce the traditional burden and enable everyone to provide for the elderly at home. For example, in 2012, women who were 50-65 years old accounted for the vast majority of those who resigned or changed jobs to take care of their parents (9). What is clear is that the average time for family care has been shortened, and the main beneficiaries are the middle and senior socio-economic classes (10).

The aging of the population also means that there are more and more lonely elderly people without relatives, and family care is not always the most practical and desirable option. Meeting these challenges requires large-scale social transformation, taking into account the actual situation of each country and the preferences of the elderly. In addition, ensuring fair implementation of the old-age pension policy for the elderly is an important innovation for the future. These policies need to solve many problems of the nature of the future society, not just consider the related issues of health and social care and people's willingness to support the elderly at home.

Methods to develop the capabilities of the elderly and meet the needs and preferences of diverse populations. Further improvement of the health and social care system, the development of innovative assistive health technologies, the construction of community-based health care and support models, and the creation of an environment that cares for the elderly must all be based on understanding the needs and preferences of the elderly and their families. Try to involve older people and determine their needs and preferences.

Improve policy coherence and promote multi-sectoral actions in various environments. Most of the current policies and actions are insufficient

Or chaotic, a policy may be implemented jointly by different competitive government departments. Policies that promote intrinsic capabilities and functions need to be planned and implemented in a unified manner, and require multiple departments to participate in actions. A high-quality, comprehensive response policy should be able to integrate different priorities into the coherent policy objectives on aging, and promote the activities of various departments and stakeholders.

There is unfair access to health and support. A considerable part of the diversity of the elderly is the entire life process

The results of various advantages and disadvantages gradually accumulated. One of the results is that at any point in the life process, people with the greatest health needs often

have the least resources, and elderly women who are widowed or childless are particularly

this. Coping with policy development requires targeted elimination rather than strengthening these inequities, with a focus on power Benefit instead of charity.

Formulate social norms that reflect reality. The most common discriminatory prejudice against the elderly is that they must rely on others or a social and family burden. In the policy-making process, discrimination against the elderly may lead to

As a result, people assume that the cost for the elderly is only economic consumption, and therefore focus on limiting this expenditure. According to age, it is assumed that the elderly must rely on the assumptions of others, ignoring the many contributions of the elderly to the economy and society. This is reflected in the neglect of the important role played by the elderly in supporting the offspring, and even leading to the elderly

Being negligent and ill-treated. Policy formulation should focus on nurturing older people to play in an environment that guarantees their dignity and rights

The ability to make multiple contributions (11) protects them from sexism and age discrimination (11).

There is a common subjective assumption that the increasing demand for the elderly population will lead to unsustainable growth in health care spending. In fact, this is far from the case. Although overall, age increases often with health

The related demand has increased, but the relationship between the use of health care services and health expenditure is variable. In some high-income countries, health care expenditures have declined significantly after about 70 years (while institutional spending on long-term care has increased). As more and more people are getting older, only by making people live longer and healthier can they really relieve the pressure caused by the surge in health care costs. Although we still need more relevant evidence, but

According to the age structure of the population, the value of future health expenditures is doubtful. Policy development needs to respond to funding

The challenge of long-term care is to develop new health care based on families and communities. The development of the care economy also

Can create a lot of job opportunities.

While the population is aging, technology is constantly innovating and creating unprecedented opportunities. For example, the network can keep distant family members in touch, provide relevant information to guide the elderly to self-care, or

Provide support for caregivers. Assistive devices such as hearing aids are more powerful and affordable than in the past, and some wearable devices provide new opportunities for health monitoring and personalized health care.

### **Theoretical framework**

Technology and social innovation

Important determinants of achieving healthy aging and enabling the elderly to live in their old age at home or in their favorite places include access to needed auxiliary health technology and medical equipment, innovation in health services, and access to information technology and knowledge. This means that a certain amount of knowledge is required. The obtained health services and medical equipment can support and guarantee daily life functions, such as sight, hearing, expression and memory, be able to walk and eat normally, maintain personal hygiene and ensure self Safety also includes the use of basic equipment such as glasses, hearing aids and crutches. For major diseases that affect the lives of the elderly and reduce their internal capabilities (such as cardiovascular diseases, respiratory diseases, cancer, sensory organ diseases, and neuropsychiatric diseases), it is also crucial to obtain medical equipment related to them.

The sources of health services and social services are not limited to licensed personnel

and formal nursing staff. Medical devices themselves are equally important, and other devices such as mobile phones and wireless networks can also help to obtain information and advice. The main actions to consider include:

Demonstrate the elderly's needs and preferences for various assistive health technologies, find gaps in availability, and obstacles to greater access to and use of these technologies;

In the process of reform planning, testing and distribution, increase the participation of the elderly.

Use methods based on community planning to improve accessibility, including reducing discrimination, removing economic barriers, and improving the current shortage of health and social service systems.

Build an enabling environment and systematically incentivize innovation, including solving many problems in assessment, supervision, finance, and use.

Gender norms are still an important determinant in many parts of the world. The main role of women is to take care of children and the elderly (see Box 7). This restricts women from working and earning income, and also has many negative effects on their later life, including higher risk of poverty, difficulty accessing high-quality medical and social services, higher risk of abuse, and health Poor conditions and reduced access to pensions. But women need to assume multiple roles, and they also need to obtain economic and social security when they are old. Policy formulation should be special

Pay attention to the special situation of older women (and men), and consider their different roles and expectations, providing them with additional support to face the negative consequences of long-term unfair treatment.

While the population is aging, society has also undergone many major changes. The combination of the two means that people in the future

The process of aging will be very different from the previous generations. For example, accompanied by urbanization and globalization is the increase in population mobility and the liberalization of the labor market. For the elderly, these changes have created

New opportunities also bring new challenges. The formulation of policies should enable the elderly to maximize this

Opportunities to overcome new challenges.

What does healthy aging include?

**Guiding Principles** 

The guiding principles for the development of the Global Strategy and Action Plan on Ageing and Health (GSAP) include:

Human rights, including everyone 's right to health, and guarantee their gradual realization (12);

Equality and non-discrimination (equal opportunities for all in life, eliminating age discrimination, minimizing differences in health among individuals, and equal access to legal protection, information and technology);

Equality between men and women (equal opportunities between men and women);

Fairness (equal access to healthy aging opportunities does not vary with social and economic levels, birthplace and residence, and other social factors);

Intergenerational joint (intergenerational social joint).

The starting point of GSAP is that despite the challenges, aging is still a valuable process. According to the concept of the plan, aging is a good thing, and the existence of the elderly group in society is of great benefit. At the same time, it also believes that many elderly people will experience significant loss, whether it is physical or cognitive ability, whether it is family friends or their early roles. Some losses can be avoided, and we should do our best to prevent such losses, although other losses are inevitable. The response of

society to aging cannot deny the existence of these challenges, but should promote the recovery of the situation, improve the adaptability of the elderly and maintain their dignity.

Pay attention to the values of the elderly and how the society values the elderly

In order to discuss the health and functioning issues of the elderly, the "Global Strategy and Action Plan on Aging and Health"

(GSAP) makes a strict distinction between three important concepts, namely intrinsic capabilities, function play, and a broad environment. Inner ability refers to the combination of all physical and mental power that an individual can use at any time.

However, intrinsic ability is only one of the factors that determine what the elderly can do. A wide range of structural factors include social, economic, and environmental factors, which can interact with genetic inheritance and personal characteristics, and are also affected by strength, exposure level, and defects, which can accumulate over time. The health system and other socio-economic systems, including the built environment, can be regarded as intermediate factors. Together, they contribute to the level and distribution of disease and injury, generalized senile syndrome, and intrinsic ability. They can also determine whether the elderly can have a healthy lifestyle, obtain the support they need, and enjoy human rights. Therefore, the theoretical basis of healthy aging should be combined with overall well-being, embodying an eco-social model, and elaborating the social determinants of health. This means that the life-long framework of action is multi-level and involves multiple fields (including activities at multiple levels such as family, community, city, country, region, and global). Many actions that are effective and promote equality clarify that society values the elderly and their well-being.

Therefore, the living environment in which the elderly live and the relationship between the elderly and the living environment determine the healthy age

Main factors for the improvement and well-being of the elderly. For the elderly at any level of ability, whether they can accomplish what they think is important depends on the various resources and obstacles in their living environment. So even if the elderly have limited internal abilities, they can still go shopping in the mall if they can get anti-inflammatory drugs, auxiliary equipment (such as crutches, wheelchairs, mopeds), Internet access, or live near affordable and easy-to-use transportation facilities. Play with grandchildren, or participate in online education, cultivate artistic talent.

This combination of individuals and environment and their mutual relationship is called function play, that is, to enable individuals to follow their own views

Thoughts and preferences come to health-related factors of life and action (see Figure 1). There is evidence that, with individual diseases and comorbidities

Compared with the severity, a comprehensive evaluation of its function can better predict survival and other outcomes (13). There are other factors that can promote the happy life of the elderly. Based on the above concepts, the Global Report on Aging and Health released by WHO defines healthy aging as the process of developing and maintaining the functions necessary for the healthy life of the elderly

## Impact of population aging on capital formation

1. Impact of Population Aging on Savings

Savings are an important source of capital formation, and the process of population aging may have an adverse effect on savings. According to the life-cycle theory, people's saving tendency during work is positive, and when people expect that life expectancy will increase, the share of saving will also increase, and the saving tendency after retirement tends to change from positive to negative. From the perspective of society as a whole, if the total burden coefficient of the population is low in a certain period, that is, the working population occupies a large proportion of the total population, then the scale of savings in the whole

society will be very considerable. On the contrary, when the total burden coefficient of the population is high, Especially when the proportion of retirees in the total population increases, the scale of savings will continue to shrink.

In the past 20 years, for most countries in the process of aging population, their household savings rates

(The proportion of household savings in disposable income) has continued to decline, which means that the aging of the population has an important impact on changes in household savings rates, but the situation is different in each country. For example, the most obvious are Australia and Canada. Since 1989, the ageing of the population has continued to deepen, and the household savings rate has shown a significant downward trend.

In some years since 2010, Australian household savings rates have turned from positive to negative. While France and Germany have higher population ages, their household savings rates have remained relatively stable. Italy and Japan are the most aging, but household savings rates are not the lowest. The United States and Australia have the lowest population support rates, but the lowest household savings rates. In addition, household savings rates in Australia, Canada, the Netherlands, and the United States have fallen faster than the population is ageing (See table).

The above situation shows that among the factors that determine the savings rate, in addition to the aging population, other factors cannot be excluded. Take the United States as an example. Thanks to the developed financial markets and the increasingly deregulated financial regulations, businesses and households can easily enter the capital market to borrow and invest, and in this case people's disposable income is no longer limited to labor compensation. After retirement, you can also get income from the capital market, which means that the consumer credit constraints and liquidity constraints in life cycle theory have been greatly weakened.

Although the aging of the population is not the only reason that affects saving behavior, and it is difficult to accurately quantify the impact of savings, it is an indisputable fact that the aging of the population leads to a relative decline in economically active population and a relative increase in non-economically active population. This means that the proportion of the total social output created by the economically active population to be consumed by non-economically active population will increase. If the total social output cannot be rapidly increased within a certain period of time, it is also necessary to ensure that the consumption level of the economically active population does not increase. If it decreases, then the portion of total social output used for savings will decrease. That is to say, in a certain period of time, the total social output must be distributed between consumption and investment. Consumption and investment are the relationship between each other. If everyone's consumption standards remain the same, then the total social output is used to The proportion of consumption will increase, and the savings for conversion into investment will decrease accordingly. According to the calculation of UN (2016), assuming that the consumption level of the economically active and non-economically active population is unchanged, the total consumption level in the United States will increase from 71% in 2010 to 75% in 2050, which is the consumption rate. With an increase of 4%, the savings rate decreases by 4%.

2. The impact of population aging on capital formation. Influences

In a closed economy, the conversion of savings into investment is the only way to form capital, or national savings must equal domestic investment. According to the life-cycle theory of savings, the aging of the population means that while the supply of labor is shrinking, savings are also decreasing, and the total investment is correspondingly falling. If other factors remain the same, it means that total output is decreasing. Further, if the

contraction of labor supply is slower than the decline of savings, it will lead to a decrease in the investment-labor ratio, which means that insufficient capital formation will lead to a decline in the level of output per capita. In contrast, if labor shrinks faster than the decline in savings, it will lead to an increase in the savings-labor ratio. At this time, if there is no technological progress and economic structure optimization, it will not necessarily lead to an increase in the capital-labor ratio. There is no increase in per capita output.

If the entire world is regarded as a closed-run economy-in fact, with the deepening of economic globalization and the widespread application of various technological advances, the connections between various economies in the world are getting closer and closer, then the population is aging With the continuous development of labor, there will be a continuous decline in the number of labor, but capital will not shrink in the same proportion. In fact, because of the unreasonable income distribution in the market economy (which ultimately leads to insufficient effective demand), assets may continue to expand. Under the dominance of the marginal product of capital, the price of assets should also fall. However, asset prices are often lagging. Without consideration of other factors (such as inappropriate or unnecessarily loose monetary policies), the emergence of asset price bubbles is inevitable. Once such an overvalued asset price bubble is difficult To maintain or encounter some kind of external shock, a financial crisis or even an economic crisis will occur. Of course, objectively speaking, we cannot attribute all future financial or economic crises to the results of population ageing, but there are reasons to believe that population ageing at least increases the risk of such a crisis.

Unlike closed economies, national savings in an open economy do not necessarily equal domestic investment. For the world as a whole, wind

Risk-adjusted returns, technology-adjusted wages, and transaction cost-adjusted commodity prices should all be consistent. If the market is perfect, there will be no stickiness in this adjustment and it can be done instantly, otherwise there will be stickiness in this adjustment. In theory, both capital and labor can achieve cross-border mobility, but from a cost perspective, the cost of labor mobility is higher than capital. It is more critical that many countries do not have too many restrictions on capital mobility and that labor mobility There are many restrictions. Except that Australia, New Zealand, the United States, and Canada are traditional immigrant countries, and only accept skilled immigrants, excluding immigrants with low productivity. Europe has not always been an immigrant country. After allowing large-scale political asylum for immigrants), rare opportunities are often very exclusive to immigrants. From this perspective, the differences in population ageing in various regions will lead to continuous capital flows. If other factors are not considered, the quality and quantity of human capital will determine the flow of international capital. The combination of human capital to get more benefits. In other words, regions with severe population aging will become capital outflows, while regions with relatively light population aging will become capital inflows.

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# A STUDY OF THE FACTORS OF GOOD USER EXPERIENCE ON COMMUNITY DRUG DETOXIFICATION APP BASED ON STATISTICAL ANALYSIS: A CASE STUDY OF CHONGQING

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#### **ABSTRACT**

Under the background of the rapid development of the Internet today, the mobile platform characterized by being portable and rapid spread of information has broadened a road for the implementation of drug detoxification work. At present, some relevant departments around China have established many community-based drug detoxification platforms. However, for various reasons, these APPs have drawbacks including inferior interactive interface, unclear pointing function and poor user experience. This paper employs literature research method, case study method and interviewing method, as well as cross-tab chi-square test and cluster analysis to investigate the emotional needs of patients who abstain from drug in the community, and provides user data for APP design. Further, based on the investigation results and theoretical guidance of three-stratum theory of emotional design, the paper provides suggestions on the design of community-based drug detoxification APPs from three aspects of instinct, behavior and reflection. The paper also explores the optimal visual design method in community-based drug detoxification APPs providing experience for related researches.

Keywords: Design management, Community-based drug detoxification, APP visual design

## **INTRODUCTION**

From a global perspective, the problem of drugs endangering public safety is increasingly serious so countries are seeking more effective methods of drug rehabilitation. China's Anti-Drug Law implemented since 2008 stipulates that the state shall take four main measures to help drug addicts to be clean, including voluntary drug detoxification, community-based drug detoxification, drug detoxification under mandatory isolation, and community-based rehabilitation after drug treatment. Among them community-based drug detoxification, as one of the major positions of drug rehabilitation in China's existing systems and regulations, integrates families, communities, governments and other relevant departments to proceed psychological and behavioral correction and treatment for drug users in a more humanized management mode.

Of two methods to the aid of people who abstain from drug in China, one is to help them get rid of drug addiction, of which is divided into the physical detoxification and the psychological detoxification. The other is to help them return to society. Statistics indicate that the physical detoxification can be accomplished within 1-2 weeks after stopping taking drugs, while the psychological detoxification is a relatively long and difficult process. At present, there are four difficulties in community-based drug detoxification: first, therapeutic effect is limited and greatly affected by drug abstainers' subjectivity for they commonly are bad at self-discipline; second, influenced by strong side effects, drug addicts are difficult to

get psychological assessment; third, because of the poor hygiene awareness while using drugs, patients with drug use are more vulnerable to other diseases; fourth, a high personnel mobility adds the difficulty of supervising people who abstain from drug. In order to solve the above-mentioned four problems in a better way, the staff in drug-related departments at home proactively innovate and unceasing explore drug detoxification mode, especially through the Internet, mobile communication technology and big data to carry out the management and counselling of community drug rehabilitation work. The popularization of the community-based drug rehabilitation APP among communities and cities drives the drug treatment forward, however, the design of this APP lacks of experience resulting in poor user experience. Through relevant data analysis this paper attempts to stand on patients' point to study the characteristics of user experience on the community-based drug rehabilitation APP.

#### LITERATURE REVIEW

## 2. 1 Underpinning Theories

As the most widely used psychological rehabilitation mode for drug users abroad currently, the Therapeutic Community (TC) in the United States developed in the 1960s is a residential treatment, which mainly corrects personality problems, improves interpersonal relationships and establishes the concept of responsibility through drug users' self-help and mutual help. The San Patrignano community in Italy (1978) maintains operation by means of the labor of patients with drug use and social donations. During the the period of drug rehabilitation, in addition to mandatory daily community work, patients also need to work on bread making and graphic design, all of which are living skills that will be financially helpful after their returning to society. Based on the enacted Drug Treatment and Testing Order, the United Kingdom takes charge of drug users without measures to mandatory isolation for drug rehabilitation. According to this law, the court can sentence an identified drug addict over the age of 16 to 6 months or 3 months' drug treatment, meanwhile patients with drug use may choose drug treatment in community or at home and accept routine observation. Drug abstainers in community complete the relevant treatments by participating community service and accepting community supervision and psychological correction and treatment. Besides, some drug rehabilitation institutions provide help on the improvement of employment and living standard for patients with drug use.

In recent years, the study of community-based drug rehabilitation at home has attracted more professionals' attention. He Xianbing (2019) has argued in the Reformation and Improvement of Drug Treatment System in Community: From the Perspective of the Patient with Drug Addict that drug addicts are supposed be defined as "patients". Further, he advocated to increase the degree of social participation and the staff with the medical, nursing, psychological and educational backgrounds, and suggested to reconstruct systems of drug treatment under compulsory isolation and community-based drug treatment so as to improve the therapeutic effectiveness. Chen Shujuan(2019) has indicated in the Study on the Effectiveness and Applicability of the Electronic System of Drug Treatment in Community Based on Mobile Phone App that attention should be paid to the improvement of compliance and user friendliness during the development of the electronic system for mobile APP. Moreover, she suggested introducing such functions as the participation degree of patients' family member, voice recording and information exchange within the system.

#### RESEARCH METHODOLOGY

## 3.1 Research Object

Taking drug abstainers in Chongqing as the research object, the author collected data of those patients by questionnaire method, including 1725 male samples and 889 female samples with an average age of 45.

### 3.2 Research Method

Combined questionnaire survey and observation method, the author designed the multilevel questionnaire and carried out questionnaire survey and interview with treatment-related parties in various forms of fieldwork, network and visit. In addition, the thesis utilized rating scale method and behavior observation method to formulate coding scheme in behavior and ensure the research is scientific.

Correction objects have complicated backgrounds and are unable to guarantee the representativeness and differentiation, so the author integrated case study method with sequential interviewing method. In quantitative research, particular emphasis has been placed on the logic of case study. The research constructed a mode based on virtual reality of psychological therapy by art, testing and validating different types of objects, and provided credible evidence for treatment strategies.

All research data were recorded into Excel and analyzed through SPSS 23 statistical software by hierarchical cluster method. Also, the analysis was conducted between two groups by chi-square test.

### **RESULTS AND FINDINGS**

#### 4.1 Measurement Model Assessment

As shown in Table.1, suppose: H0:The male drug users have the same drug use years as female drug users; H1: The male drug users have different drug use years from female drug users. Choose significance level(Asymptotic Significance) as Z=0.05.Total sample N=2614, the minimum expected count is 68.02.

**Table1** Years of Detoxification\* Cross-tabulation table

				Ye	ear		Total
			0-2	2-5	6-10	10-11	
Years of detoxification	Male	Number of people	169	411	654	491	1725
detomication		Expected Number	132.0	383.4	603.8	605.8	1725.0
		Percentage of total drug detoxification%	9.8%	23.8%	37.9%	28.5%	100.0%
	Female	Number of people	31	170	261	427	889
		Expected Number	68.0	197.6	311.2	312.2	889.0
		% Percentage of total drug detoxification	3.5%	19.1%	29.4%	48.0%	100.0%
Total		Count	200	581	915	918	2614
		Expected Count	200.0	581.0	915.0	918.0	2614.0
		% Percentage of total drug detoxification	7.7%	22.2%	35.0%	35.1%	100.0%

As shown in Table 2, in 3\*2 Cross tabs, there are 6 cells in total, none of the T in the cells is below 5, so we can directly read the test result of Pearson Chi-Square. X2=112.596a, p=0.000<0.05, There is statistical significance, we can tell from the Table 2 Chi-Square Tests chart that until Apr.2020, among the 2614 sampled drug addicts, there are 1725 males and 889 females, the percentage of drug users among females was lower than that of male 10 years before. But 10 years later, the percentage of drug users among females was higher, which means the female relapse rate was higher. One important reason for this is that the patients lives changed and it affected them negatively.

**Table 2** Chi-Square Tests table

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	112.596a	3	.000
Likelihood Ratio	114.553	3	.000
Linear-by-Linear Association	90.807	1	.000
N of Valid Cases	2614		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 68.02.

The number of male drug users is 6.8% higher than that of the female in the past 0-2 years with female users only 3%, the overall increment is obliviously less than the currently existing users. This demonstrates that over the past two years the government crack on drug use has been intensifying and that the number of drug users is significantly reduced.

 Table 3 Gender \* Previous occupation Cross-tabulation table

			1		Previous o	occupation			
			Farmers	Workers	Individual operators	Staff of recreation places	Officials	The jobless	Total
Gender	Male	Count	83	207	162	81	12	1154	1699
		% within gender	4.9%	12.2%	9.5%	4.8%	0.7%	67.9%	100.0%
	Female	Count	4	57	72	48	8	659	848
		% within sex	0.5%	6.7%	8.5%	5.7%	0.9%	77.7%	100.0%
To	tal	Count	87	264	234	129	20	1813	2547
		% within gender	3.4%	10.4%	9.2%	5.1%	0.8%	71.2%	100.0%

### As shown in Table 3:

Hypothesis H0 is that male patients and female patients are occupied in the same job before drug use; while alternative hypothesis H1 is that male patients and female patients are occupied in the different job before drug use.

Asymptotic Significance is 0.05 (Z=0.05).

Total sample is 2547 (N=2547), and the minimum expected count is 6.66.

#### As shown in Table 4:

The 3\*2 cross-tab has 6 cells, of which contains the cell of no T that is less than 5, so the Pearson Chi-Square test results can be directly read.

X2=112.596a

P=0.000<0.05 are with statistical significance.

**Table 4** Chi-Square Tests table

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	58.123 <sup>a</sup>	5	.000
Likelihood Ratio	70.561	5	.000
Linear-by-Linear Association	43.947	1	.000
N of Valid Cases	2547		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.66.

As is Table 4 shows, in 3\*2 Cross-tab, there are 6 cells in total, none of the T in the cells is below 5, so we can directly read the test result of Pearson Chi-Square. X2=58.123a, p=0.000<0.05, there is statistical significance, we can tell from the Table 4 Tests chart that until Apr.2020, among the 2547 sampled drug addicts, there are 1699 males and 848 females and mostly individual operators, workers, staffs of recreation places and the jobless. Among them, the largest proportion is the jobless who takes 67.9% and 77.7% respectively. Coming next is individual operators, then staffs of recreation places. The number of the male farmers is 9 times higher than that of female farmers. On the whole, most of the drug users come from the jobless, staffs of recreation places and individual operators who has more free time and social connection. We should reinforce the monitoring and publicity of the three aspects and help the related ones take part in social works actively.

**Table 5** Gender \* disease Cross-tabulation table

#### Disease

			Physical disability	Mental illness	Cardiovascular diseases	Tuberculosis	Infectious diseases	Other serious illness	STD	Total
Gender	Male	Count	115	31	168	28	78	51	4	475
		% within gender	24.2%	6.5%	35.4%	5.9%	16.4%	10.7%	0.8%	100.0%
F	emale	Count	51	32	78	8	35	36	2	242
		% within gender	21.1%	13.2%	32.2%	3.3%	14.5%	14.9%	0.8%	100.0%
Total		Count	166	63	246	36	113	87	6	717
		% within gender	23.2%	8.8%	34.3%	5.0%	15.8%	12.1%	0.8%	100.0%

As shown in Table 5, suppose: H0: the disease rates of the male and female drug users are the same , H1: the disease rates of the male and female drug users are different. Choose significance level(Asymptotic Significance) as Z=0.05.(Total sample)N=717,The minimum expected count is 2.03.

Table 6 Chi-Square Tests table

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	112.596 <sup>a</sup>	3	.000
Likelihood Ratio	114.553	3	.000
Linear-by-Linear Association	90.807	1	.000
N of Valid Cases	2614		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 68.02.

## As shown in Table 6:

The 3\*2 cross-tab has a total of 6 cells, and only cells 14.3% have expected count less than 5. The minimum expected count is 2.03.

Pearson Chi-Square test result shows that X2=14.118a and p=0.000<0.05 are with statistical significance.

As the Table 6 can be seen, up to April 2020, 2547 patients were sampled, including 475 males and 242 females, of which Cardiovascular disease was high in general. In addition, the number of patients accounted for 34.7% of the total sample, and drug users was in a lower degree of physical health.

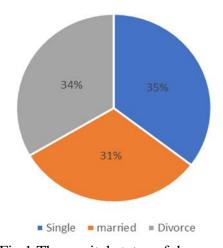


Fig.1 The marital status of drug users

We can tell from Fig1 that among the 1000 more sampled drug users, those married account for 31% of the total number, whereas the singles and divorced ones account for 69%.

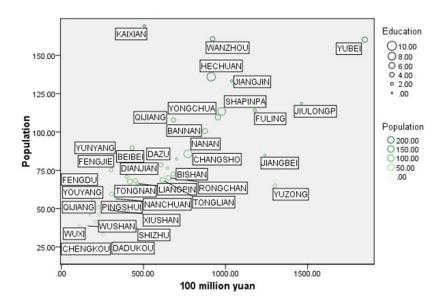


Fig.2 The distribution of drug users in Chongqing

Family composition has direct effects on whether to take drugs or not and at the same time it affects the Detoxification outcome deeply.

**Table 7** Distribution of drug users by region table

Clustering scheme	class variable	size	characteristic
NO.1	YUBEI	2%	New economic development
			zone
NO.2	NanAn,Shapingpa	7%	Old district
	He Chuan,		
NO.3	KaiXian	2%	Remote regions
NO.4	WanZhou	23.6%	Districts and counties
NO.5	YunYang	67.4%	Remote mountain areas

The research group recruited 30 volunteers from 2547 patients to participate in the later test. The 30 volunteers were all males with an average age of 45, ranging from 25 to 65 years old. Among them, 29 were from Chongqing and 1 was Tujia person. Hierarchical cluster was applied to the data of these 30 patients.

We can tell from Fig.2, Fig.3 and table7 that the GPD of 38 regions and counties of Chongqing city, the total population and the numbers of drug users of each regions of 2019 can be classified into 5 categories by hierarchical clustering: the new economic development zone Yubei, the old districts NanAn and Shapingbai; districts and counties, mainly Wanzhou and Yongchuan; Multiracial regions like Yunyang. The cultural life needs vary because of the difference in the degree of the economy development, drugs users are vulnerable to the surrounding environment and become addicted. Over the past 10 years, the drug users in Chongqing developed from the developed regions to the undeveloped regions. While designing community Detoxification Apps, we can provide specific cultural content according to different residential areas of the users based on the varied cultural differences of different regions.

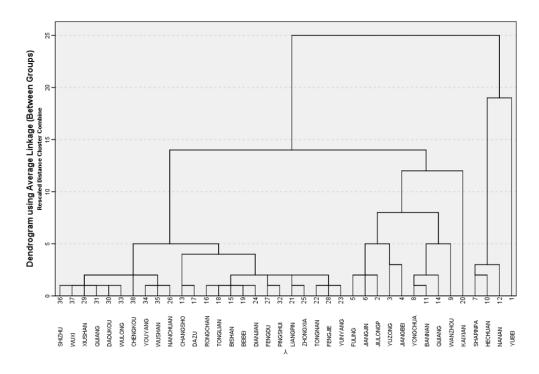


Fig.3 Distribution of the number of drug users and GDP\population by region

## CONCLUSION AND DISCUSSIONS.

## 5.1 Data analysis and Demands

Firstly,self-awareness,in recent years, with the reinforcement of humanism consciousness, there has been changes in the identification of drug users. The drug treatment personnel focus more on the psychological treatment of drug users from a humanistic caring perspective. From the drug-taking duration and occupations before drug-taking we can tell that male users who have been taking drugs for over 6-11 years accounts for 66.4% and females 77.4%. Mostly community Detoxification patients prefer not to face and mention their past experience. They fail to reconcile themselves, pessimistic about the future, cold toward their families, hostile towards others surrounding them and are not satisfied with their living conditions. This lead to low enthusiasm in detoxification, their passive attitude towards Detoxification does no good to the treatment. Therefore, the burning issue now is how to stimulate their initiative, to release pressure and seeking for help actively.

Secondly,family relations,during the statistical analysis of the marriage status of the drug users, we found that family is an promoter to their individual personality mature. If they can acquire care from their family during the detoxification, a sense of relaxation and acceptance will arise from their heart. We learned from their marriage status that the married addicts are much less than the single and divorced ones. Emotional assistance from family members plays an important role in the correction of drug users. The users are prone to relapse if their family do not accept them during community detoxification. No matter which period of Detoxification they are in, the positive guidance of family is an indispensable element toward a successful detoxification.

Lastly, social acceptance ,It's of great importance for the drug users to return to normal society production and and life by integrating to the society and eliminating group discrimination. But at this point, the social acceptance remains to be improved. From the statistics we can tell that the number of the drug users in the undeveloped regions is larger

than that of the developed regions. The reason lead to this is complicated. One of the key reasons is that the society is able to provide more work opportunities for the drug users. There's a lack of resources to provide jobs for them, this is also the pain point of community detoxification.

Through the statistics and analysis of the related data, we summarized from the aspects of instinct, behavior and introspection the emotional demand of the target users towards community Detoxification Apps.

**Table 8** Distribution of drug users by region table

Instinct	Visual elements	Words: few		
		Icons: clear and simple		
		Color: anxiety relieving		
Behavior	Information understanding	Clear logic		
	Interaction designing	Easy to operate and interact		
Introspection	Interest, self-confidence, healing	g and sense of experience		

Instinct level includes words, icons and colors. For special users like drug addicts, we should aim at anxiety relieving of visual elements. The drug addicts varies from normal person in terms of psychology and behavior. Thus, as to logic design, it should be more clear. And interaction design should also be as simple. Regarding introspection level, we should also take into consideration their self conscious affirmation demand and increase the healing feature of the apps. Moreover, interest should also be considered to increase good experience of the users.

## **5.2 Conclusion**

To sum up, over the past 10 years, the drugs users of Chongqing has developed from the previously developed regions to the underdeveloped regions. This paper has studied the drug users' features and their relationship with the outside world through cross table chi square test and hierarchical clustering. Considering their demand, while designing community Detoxification Apps, we can design the related functions and visual effects according to the features of the user.

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## RISK PREVENTION MEASURES FOR COLLEGE STUDENTS' ONLINE LOAN

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### INTRODUCTION

## 1.1 Research Background

As of 2019, according to the official website of the National Bureau of Statistics and some official media, data are available: China currently has approximately 2569 universities and 30 million college students. Studies show that 22% of students opposed campus loans, and 78% supported and neutral. The scale of Internet consumer finance transactions for Chinese college students has increased from 1.15 billion yuan in 2013 to 239.45 billion yuan in 2019. Combined with the current financial situation of campuses, we can predict that this need will not be fully satisfied by formal consumer finance suppliers, and these Unfulfilled quotas have given countless opportunities to "drill down" on illegal platforms outside the roaming supervision, causing countless college students to bear huge compensations, drop out of school, commit suicide, be exposed to nude photos, and sell eggs for money. Statistics show that as of the end of 2018, the overall turnover of the online loan industry was 1.7 trillion yuan. Since June 2017, China has found more than 10 million illegal collections, 790,000 victims and 920,000 victims (Xinhua Daily Telecommunications, 2019). Campus loans are frequent, and many college students are now sufficiently alert to campus loans, but in the face of illegal loan companies, tutoring training institutions, under the guise of bank and government background, they have issued false free publicity for "free delivery". Intimidate students into lending. The classic case of campus loan: In the case of "borrowing" campus loan "to buy mobile phones and more than 400 universities accused, students originally wanted to exchange pocket money or their favorite electronic products through part-time work and work-study programs. Among the black holes of routine loans. Faced with campus loans and various disguised campus loan scams, we still need to remain vigilant enough. Being an ostrich cannot solve the problem, and being a young hawk cannot resist the entanglement of the underworld. It is best to take the initiative to seek legal solutions to the problem. Is also the most important way.

#### 1.2 Problem statement

In 2003, banks began to provide credit card services for college students. However, in the end, due to higher cancellation rates, higher sleep rates, and higher bad debt rates, they were suspended by a ban of the China Banking Regulatory Commission in 2009, and the card-issuing banks quickly withdrew from the market (CDC, 2017). In 2010, private loans rushed into the campus, called campus loans. Because college students are stupid and foolish, do n't calculate interest earnestly, and have more willfulness, even if it 's not enough, they think they have the characteristics of parental commitment, poor self-control, strong comparison, simple mind, and good face. The lending platform has a steady stream of customers. High yield, controllable risk and other advantages (Shanghai Luxury Thai Investment Management Co., Ltd., 2019). These "campus loans" wandering in the gray area of supervision not only infringe on the rights of lenders, but also disrupt the order of the financial market, and have aroused great concern from the society. Hubei Jingshi Live Broadcasting said: These benefit-oriented online loan platforms use scarce benefits as a

gimmick and use illegal usury to cause countless college students to enter a scam, which has caused hundreds and thousands of times of harm to families and society. Campus loan is also called "campus harm". In view of this phenomenon, this article consults previous research cases, clarifies the specific risks and incentives of campus loans, and adopts corresponding preventive methods.

## 1.3 research problem

Cases of campus loans are frequent, and victims of university students are common. The prevention awareness of college students and post-processing by relevant departments can only show that the society is helpless in the face of campus loans. In online lending, there are often risks such as unknown rates, low borrowing thresholds, inadequate qualification review, uncivilized collection methods, difficult to control risks, easy transfer of risks to families, and the lack of qualifications of campus agents. , 2019). In transactions where it is easy to borrow money and difficult to repay, in order to preserve its reputation, "even repayment" and "profit rolling" have become the only choice for college students. So, what measures can we take to prevent college students from being harmed by these risks?

## 1.4 Research purposes

At the end of June 2017, the CBRC, the Ministry of Education and other departments jointly issued a document to suspend the online loan institution's new campus loan business, rectify and exit the existing business, and put campus loans under the "toughest" supervision (Losa, 2017). Under the pressure of supervision, the number of campus loan business platforms has also declined rapidly. According to the data of Internet Loan House, as of the end of February 2017, there were 74 Internet finance platforms in the country carrying out campus loan business, a decrease of 34 from 108 in 2015 (Ji Xuejiao, 2017). The "campus loan" everyone yelled for was choked by regulatory bans, and various makeovers, training loans, business loans, and other instalment purchases came to light again (Ye Jie, 2018). Therefore, to prevent college students from being affected by the financial risks of campus online loans, and to stifle unscrupulous platforms in the cradle has become the sole purpose of this study.

## 1.5 Significance

The chaotic campus loan is very unreasonable, and it has brought great harm to university students themselves, their families and society. "Campus loan" may seem like a very small incident, but the problem it reflects is very serious. Without supervision and control, more innocent families will pay a heavy price. Therefore, this article refers to a large amount of literature, journals and magazines, improves the authenticity of the research report, analyzes and replaces the precautionary measures of campus online loans, and employs powerful means to protect students from entering the pit and reduce their damage. Keywords: countermeasures, financial risks, campus online loan

### LITERATURE REVIEW

## 2.1 Reasons for student loans

Campus online loan is a simplified loan method. It is convenient to apply and obtains funds quickly. University students only need to submit basic information such as ID cards and student IDs or fill out a form online. They can apply for a credit loan without guarantee or mortgage (Wang Lu, 2018). As a form of private lending, the purpose is to borrow capital to obtain interest. For usury and other forms of online lending, it is a relatively simple and

different type of economic relationship with normal lending capital. Therefore, online lending is favored by college students. Most college students have not been able to resist the temptation to get involved in the world. Many college students still have the wrong concept of consumption, love comparisons, and lack of self-control. In addition, college students lack income sources and the ability to repay. Deeper and deeper. Sometimes people with serious problems may waste their studies or even end their lives (Xi Siyu, 2019). Currently, colleges and universities in China generally adopt a boarding system. University students leave their parents to go to college, and there is usually less communication and exchange between them (Zhang Lifang, 2018). According to feedback from previous parent open days activities held by the college, 70% of parents believe that their children have gone to college, they can let go without too much control, and do not know the students' ideas and psychology in time. In addition, most parents of rural students have little access to online information, and they lack basic understanding of campus online lending. They cannot make correct values and behavior guidelines for students on campus online lending. Although college students are a group receiving higher education, after all, they are not deeply involved in the world and lack of social experience. They have a lack of awareness of the risks of online lending and the safety of their own property. The vast majority of college students lack financial knowledge, and many students complained that their lives were like an emperor at the beginning of the month and not as good as a beggar at the end of the month.

## 2.2 An Analysis of the Status and Causes of Campus Internet Loans

"Campus loan" refers to college students' loans to online loan platforms by themselves, which became popular and developed rapidly in 2013 (Deng Jianpeng, 2016). Campus loans were used to help students, and various platforms rushed into the campus. The fraudulent methods for college students have been renovated. The number of fraud cases such as mobile phone instalment purchases and unsecured loans is increasing day by day. Under the gorgeous appearance of installment payment first, there are hidden "consumption traps" that are difficult to detect. Many college students are trapped in it, which has brought huge burden and pain to the students and parents. Of course, the amount of loans to college students varies from platform to platform. The maximum loan amount is concentrated below 5,000 yuan and above 10,000 yuan, showing a polarization trend. The overdue fee rate is also different between different platforms, with a difference of 60 times between the highest and the lowest (Children's Shoes Paper Network, 2018). Campus online loan companies generally have annual interest rates of more than 30% (China Business Network, 2016), which are loan sharks and are not protected by law. Campus online loan collection methods are rough. Once it is overdue, the platform will perform reputation abduction, and some platforms will use harassment, coercion and other collection methods, or even worse methods, forcing borrowers to use new debts to pay off old debts. The trap designed by the platform operator puts psychological pressure on college students step by step, which greatly threatens the personal freedom and safety of borrowers. Some college students have poor psychological qualities and dare not inform the school or parents of the overdue fact of the loan, which is likely to go to extremes. The cause of accidents (Sun Chenghuan, 2019) Ishikawa Diagram, also known as cause and effect diagram, Ishikawa diagram, was invented by Japanese management master Mr. Ishikawa Xin, is an analysis method to find the root cause of the problem. Problems or defects (ie consequences) are marked outside the "fish head". Fishbone grows on the bone, and the possible causes of the problem are listed above according to the chance of occurrence, which helps explain how each cause affects each other. Regarding the inducement of campus online loan, the article uses fishbone diagram to visualize the inducement of campus online loan from five aspects: college students themselves, online loan institutions, government supervision, universities, integrity and credit system construction. (Wang Ningbang, 2019)

## 2.3 Existing measures for campus online lending

After the tragedy of campus loan, colleges and universities have helped students to establish a correct outlook on consumption, raise awareness of prevention, set up scholarships and other activities (Probing into the work papers of college counselor campus online loan governance, 2020), but this does not solve the problem. The temptation chip, the inner strong desire, need external help to protect the students from harm. In 2016, the CBRC, together with the Ministry of Education and other six ministries and commissions, jointly issued the " Notice on Further Strengthening Political Work on Campus Online Loans, "which restricted online loan platforms. The notice did not comprehensively curb the occurrence of undesirable phenomena. Subsequently, in 2017, the CBRC joined the Ministry of Education again. And the Ministry of Human Resources and Social Security issued a "Notice on Further Strengthening the Management of Campus Loan Standardization Work", calling for the suspension of college student campus online loan business. Although some platforms have been withdrawn, there are still some platforms that cover their faces and continue to be impunity (legal perspective Research on China's Campus Online Loan Issues, 2019). In 2018 and 2019, Yan Li put forward two proposals on the addition of "illegal lending crimes" to control the violent collection of private loans and violations of personal privacy, and combat housing evasion from financial supervision. "Illegal crime loan" was incorporated into the criminal law (Surge News Network, 2018). During the introduction of campus loan-related regulatory measures, industry self-regulation should cooperate with regulatory measures to ensure a healthy and long-term development of the financial industry (thinking about campus loan suspensions from the perspective of economic law, 2019). College students and online loan platforms, as both parties of borrowing behavior, can hardly reduce losses by relying only on their self-discipline. Laws and regulations that have been issued time and time again are just forbidden, forbidden, and lack of clear notification of the legal consequences and actual acts of blockade.

#### RESEARCH METHODOLOGY

#### 3.1 Research methods

In order to study the financial precautions against campus online loan, this research combines quantitative and qualitative analysis.

## 3.2 Research Methods and Population Sampling

This paper adopts a random sampling questionnaire survey for students of the Capital Normal University's College of Science and Technology and Beijing Eight-dimensional School, and uses the online method to conduct a questionnaire survey of college students' network loans. Both schools are located in the suburbs of Beijing. Among them, the Cod College of Capital Normal University is a three-category art school, including self-study colleges, and Bawei School is a vocational college. Both schools are in Beijing, and the amount of information received by students is large. Because the nature of the two schools is different from ordinary colleges, students are more likely to choose campus online loans. Therefore, the purpose of this study is to understand the hazards of online loan on campus, from which aspects we can effectively prevent.

## 3.3 Case background and data collection

In order to collect data, we produced and distributed 200 questionnaires, and effectively recovered 169 questionnaires, and the effective recovery rate reached 85%. The questionnaire is based on 19 basic questions, including the basic information of college students, the cognitive situation of online lending, the reasons for online lending, the ways of online lending, the amount of online lending, the precautionary awareness and advice of online lending, etc. Current understanding of college students on online lending. In addition, because some students of our school have been affected by campus loans, we have discussed campus loan related issues with some students and teachers, and summarized the conclusions together with the questionnaire. In this questionnaire survey, male students accounted for 54% and female students accounted for 46%. The survey proportion of male and female students basically accorded with the structure of the ratio of male and female students in universities. In the distribution of grades, the questionnaires are basically even. The proportions of freshmen, sophomores, juniors and seniors are 23%, 24%, 30%, and 23% respectively. The student structure is in line with the scientific rationality of the questionnaire.

## 3.4 data analysis

In view of the financial risks of campus online loan, we analyzed the results of the questionnaire survey to understand which online loan websites and related operations the students visited, recorded and analyzed students' online loan related behaviors, counted high-risk personnel, and transferred them to the ideological education management staff of the academic department. Tracking and observing the trend of students' online loan to avoid vicious incidents the campus linkage process of the department's online loan event is shown in Figure 3 (Wang Ningbang, 2019).

## 3.5 Findings

Students and loan platforms are the two sides of online lending. Their self-discipline plays a decisive role in determining whether the two parties have been affected in the entire lending process, but more needs external forces, such as schools, laws, industry supervision, and credit reporting. Constraints and penalties. The Analytic Hierarchy Process (AHP) was proposed by American operations researcher Professor Satye of the University of Pittsburgh in the early 1970s. It decomposes elements that are always relevant to decision-making into goals, guidelines, and plans. A decision-making method based on qualitative and quantitative analysis on this basis. Aiming at the financial risk prevention measures for college students' online loan, this method briefly describes the measures to be taken.

## 3.6 Discussion

The purpose of this article is to study the precautionary measures against campus loan risks. Many previous articles have spoken around campus loans. Educational departments, youth organizations, the financial industry, and the public security department must jointly strengthen the education of financial and legal knowledge for college students, and continue to carry out in-depth special education activities such as preventing illegal "campus loans", inform the risks, and remind the protection of personal privacy. Increase awareness of security precautions. (China Youth Daily, 2018) The self-awareness of students directly determines whether they will enter the pit, education, lectures, etc. may not help the students much, because after all, if self-discipline can solve the problem, there is no need to There is no need to move out of law. Campus loans started earlier and developed very maturely in developed western countries. Government subsidies, schools' supervision of student situations, and liaison as a medium have enabled them to have lower bad debt rates and

student victimization rates. Perhaps China can learn from this method, and at the same time, it can provide students with part-time jobs in the name of schools, increase the number of scholarships, use campus loans as a compulsory course, and force students to pass exams to prevent students from entering the pit. Once something goes wrong, even if you finally go to court, the psychological trauma to the students, the financial burden on the family, and the long lawsuits will really make people collapse. In addition, behind the injury are criminal cases that the society attaches great importance to. The data show that from 2015 to 2017, the number of criminal cases involving campus loans involved 1,600 people, involving a total amount of 20,613,737 yuan (Lei Yi, 2019). This is only a verdict. There are countless victims who do not stand up and who dare not speak out in order to preserve their reputation. The law is the last weight of the weak, not only to restrict the relevant platforms, but also to clarify the heavy price they need to pay after touching the red line.

## SIGNIFICANCE OF MANAGEMENT, LIMITATIONS AND DIRECTIONS FOR FURTHER RESEARCH.

## 4.1 Management meaning

The research in this article is different from the past. It does not focus on the students and the platform itself. It mainly focuses on the restrictions on campus loans by schools and laws. Law is a large framework that can restrict and sanction evil forces from a wide range of perspectives, but students have relatively weak legal awareness and lack of social experience. They do not know how to protect themselves with legal weapons. Some basic protections need to be implemented by schools.

## 4.2 Limitations and research directions

Due to the short time available for the entire article, when using the data, the data in this article refers to some network data and previous articles. In today's rapidly changing world, there will be some deviations in the data. If you analyze and compare the cases, you need to make more Accurate data collection. Due to the epidemic situation, the data selection was located at my alma mater and a nearby school, which did happen on campus. Because of the special nature and high degree of freedom of our school, more people may participate in campus loans. The understanding may be too radical, for the purpose of cutting it. And there may be so many students in the country who don't even know about it. More data analysis may be needed to make the sample ratio more reasonable and closer to the overall population.

## **CONCLUSION**

The paper briefly describes the specific reasons for the risks of campus loans. By categorizing these reasons and finding out the corresponding measures. Through everyone's feedback, the study concluded that the self-awareness and prevention of students and platforms can only target self-regulators, and more needs to be provided through school education, subsidies, help, legal constraints and penalties to reduce the victimization rate. The law needs to combine the existing cases and analyze the possible holes in the platform after the relevant laws are promulgated, and respectively promulgate corresponding protection laws and punishment laws. Legal settlement is a time-consuming and labor-intensive process for both parties. As a student's habitat, the school needs to observe and track student behavior and trends. A series of tedious tasks such as prevention and control of external platforms also require the school's attention and prevention control.

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## INNOVATIVE METHOD FOR SELF-CHECK-IN: A CASE STUDY OF CHINESE AIRPORTS

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#### **ABSTRACT**

To meet the demands of modern economic development, China Customs needs to carry out continuous reform and innovation. At present, the problems of the domestic self-service system of customs are obvious--the management ideas and means can not keep up with the development of the situation. This article carries on the thorough research to the customs technical reform, unifying the theory to direct the practice to help establishes one to be full of vitality, the streamlined high-efficiency modernized customs. Also, this paper aims at the solution research to the problem of self-help customs clearance in China and its future development strategy research.

## **Background of the Study**

To meet the demands of modern economic development, China Customs needs to carry out continuous reform and innovation. Realizing the modern customs administration through pushing the all-round reform of customs clearance operation and reorganizing the operation process of Customs Administration, totally establishing the modern customs administration system by conducting the Scientific Administration of the customs, and implementation of information strategy in customs administration by increasing input in science and technology are needed.

At present, to make air passengers efficient check-in procedures and customs, efficient service must be carried out quickly and effectively. The clearance efficiency of a large number of passengers at the check-in counter is one of the main problems in the field of self-service customs clearance. The gradual development of the so-called self-service, this service will speed up eventually delegate some of the check-in process activities to passengers and speed up the entire clearance process. Taking into account all known requirements and standards of domestic air transport relating to passengers with disabilities to reduce the load at the check-in counter, thereby speeding up the clearance of passengers at the airport.

China's customs reform and innovation needs theoretical basis and methodological guidance. As for the self-service customs clearance system at the airport, there are still some deficiencies that need to be addressed. This paper aims at the solution research to the problem of self-help customs clearance in China and its future development strategy research. At present, there are some serious problems such as inadaptability, challenges and opportunities brought by the development of modern science and technology, and the urgency of management reform and innovation for Chinese Customs. This article will carry on the thorough research to the customs technical reform, unifies the theory to direct the practice, establishes one to be full of vitality, the streamlined high-efficiency modernized customs. In this topic, this article conducts management analysis on customs, Innovative management model, according to the basic theory of Enterprise Management and the basic theory of innovative management.

#### LITERATURE REVIEW

The Communications Network provides a variety of services to customers while being able to add or modify available service combinations at the same time (Cox, Richard D, Hunter, Andrew T, Rand, Jeffrey K, 1998). Provides a service delivery infrastructure that is located at the service control point of the intelligent network architecture and uses a range of service independent functions to deliver services (Lu, Huigi, Clarettournier, Frederic, 2007). Mobile Commerce poses challenges to both individuals and society in nowadays. Creating and maintaining secure identities for online payments has become an important priority for businesses and consumers. To meet these challenges, we implement an efficient biometric mobile payment authorization system, which combines an embedded commercial bar code reader to provide a platform-independent global mobile payment authentication and tracking system. The paper, pursuit of excellence in airport management to create maximum market value mentioned that in the same time the airport production scale gradually expanded, the airport management level and service quality needs to be constantly improved. Since the reform of the Civil Aviation System in China, the airport management agencies have assumed the functions of aircraft protection and passenger service. The products exported are not concrete physical products in the ordinary sense, but Whether the quality control is applicable, and how to find the entry point of quality management in Airport Security Service (Chen Wei, 2003), in particular, in the system of the civil aviation of China, after the full implementation of safety management system SMS. At present, with the continuous increase of domestic airport passenger flow, the innovative management of self-help customs has been under the influence of foreign countries continue to build pilot construction. However, there are still many problems in the construction of the pilot need to be resolved and continuous improvement, so this topic is of great research value.

In the current, domestic and international research on smart airport the self-service customs clearance system is still a relatively missing part, and the exploration is still insufficient. For example, in the literature of Sun Jingjing(2016), the research on the important role in the national economic and social development of domestic airports of the public infrastructure plays was studied. In the new era of "Internet + " rapidly integrated with various industries, the current information level of airport service management is low, and the efficiency and quality of airport service management need to be improved. He proposed the design scheme of the platform of integrated passenger service management and designed the subsystem of passenger service management, passenger self-service subsystem and passenger information service subsystem. lack of self-service through customs design. In the design and research of these systems, self-service design of customs clearance is lack.

There are many key points in innovation management, such as management innovation, information application innovation, and cooperation mode innovation. this paper will conduct research and discussion on the domestic airport self-service customs service based on the above three points. Based on the current self-service system of some airports at home and abroad, this article intends to adopt two methods to conduct research: literature research method and comparative research method. Based on the knowledge and theory of service management research, and the combination of the successful achievements airport information system at home and abroad, this article try to propose the design scheme of domestic airport passenger self-service system according to the actual situation of domestic airport.

Literature research method: This paper mainly uses this research method to summarize the research data related to this topic, which lays a theoretical foundation for the research of this paper. Comparative study method: this article conducted comparative research through the United States and Canada and other parts of the airport, and analyze through combining with the application of new technologies in domestic airports.

At present, the domestic self-service customs clearance service in the airport began to gradually form a model. In a real sense, the classification of customs clearance, mutual noninterference, more effective protection of passenger security is realized. Civil aviation transportation industry is an important strategic industry for the economic and social development of our country. It is an industry with high technology content, high service standard and high safety requirement. In recent years, with the rapid development of civil aviation industry in China, air travel has become the choice of more and more passengers. Along with the growing demand of the domestic civil aviation passenger transport market, the busyness of each big airport intensifies day by day. Facing the increasing passenger flow, the existing manual check-in mode can not meet the passenger demand. As a new trend in the development of the aviation industry, airport self-service is becoming more and more popular among the passengers, which provides a faster and more convenient way for passengers. According to the 2012 SITA / World Airlines far out self-service survey, nearly two thirds of the passengers surveyed had used self-service, and nearly 90 per cent of the passengers choose the mobile flight statues update and self-check-in service as their most preferred selfservice application. And in the past five years, more and more incoming passengers appealed for the perfection of domestic self-help Customs Service.

At present, the domestic self-service customs clearance service in the airport began to gradually form a model. Shenzhen customs will try to run the self-service customs clearance (e channel for Short) in Futian, Luohu and Shenzhen bay port. It will be more convenient and faster for passengers to pass through the customs. According to reports, the self-service channel can identify various documents within 3 seconds for example, pass permit, mainland travel permit for Hong Kong and Macao residents, mainland travel permit for Taiwan residents, passports. And in 6 seconds the channel can verify the opening of the channel or alarm decision.

Three-second identification and six-second rapid customs clearance. When passengers of Futian, Luohu and Shenzhen bay port arrival hall, they can see a row of brand-new self-service channel to go through custom. According to the customs officials, this channel has previously operated at the Man Kam to Port, Sha Tau Kok Border Area and Shekou Wharf port, and is now being promoted into use at three ports. The features of self-service channel was advanced, it can with 3 seconds to identify the pass permit, mainland travel permit for Hong Kong and Macao residents, mainland travel permit for Taiwan residents, passports and other documents, and with 6 seconds to complete the risk of verification, and make a channel open or alarm decision.

In order to facilitate the operation of passengers, the front-end display screen will scroll operation animation. And there also carefully set up a different size of the standard documents, convenient for passengers to place documents accurately, easy to operate and fast to go through. Customs staff are available for advice and assistance.

The customs self-service Channel automatically identifies and classifies different types of passengers, and applies a higher inspection rate to high-risk passengers and a lower inspection rate to most law-abiding passengers. As a result of the adoption of computer intelligence identification under the condition of "big data", customs in the passenger channel is no longer checking solely based on manual experience, it bring customs into a new era of information classification supervision. Through the linkage customs risk analysis system, the channel can accurately identify high-risk passengers such as "Shuike" through data analysis, and facilitate the customs to handle the classification of law-abiding passengers and "Shuike".

#### **CONCLUSION**

As mentioned above, according to the four-dimensional model of service innovation, service innovation is mainly embodied in four aspects: new service concept, new service delivery, new service customer interface and service technology. Therefore, from the specific path, the civil airport service innovation, are also inseparable from these four aspects of innovation. Service innovation is of great significance to enhance the market competitiveness of airports. According to the existing problems of service innovation in China's airports, we should start from the following aspects:

To speed up the establishment and improvement of policies on airport service innovation, and to provide policy and institutional guarantees of building an innovative country for the promotion of airport service innovation. And also to put forward the strategy of building an innovative country, a policy document on strengthening China's capacity for independent innovation has been issued. Strengthen organizational learning, through the reciprocating cycle mechanism of learning, absorption, innovation we can promote their own service innovation. The essential core competence of an enterprise is knowledge. And the acquisition, accumulation, dissemination, application and innovation of knowledge must depend on the learning process. Therefore, we can simply come to the conclusion that organizational learning is also the source of core competence and the source for the enterprise to obtain the competitive advantage. Strengthen the research on airport service innovation, and provide intellectual support for the practice of airport service innovation in China. Lack of research leads to the lack of understanding, and strong guidance on service practice, which affects the overall level of China's airport service innovation. Therefore, we need to attach great importance to it from government departments in charge, scientific research institutions to the airport itself, and take measures to strengthen the research effort on service innovation in the airport industry, to grasp the inherent law and fundamental problems of innovation of service industry, and guide the practice of service innovation of industry to develop steadily.

In the research of this topic, the research of documents and airport self-service system at home and abroad is conducting a summary statement of the research results in the past 20 years, and discuss the current domestic independent through the customs technical innovation results, but in the subject, the relevant technical improvement proposals are still lack of. In future research, more attention should be paid to the innovation of technology and to provide strong technical support for the innovation of Airport Service. The aviation transportation Service industry belongs to the high-tech industry. As an important part of the aviation transportation industry, the airport service needs strong science and technology strength as the support. At present, the application of the computer communication network technology is increasingly extensive in the airport service, and the role played by technology is increasingly prominent. The whole service process can be said to be the full use of modern science and technology process. Through technological innovation, our country applies the latest achievements in the field of technology to the field of airport service, thus promoting the transformation of airport service mode and promoting the innovation of China's airport service.

In the future airport self-service system, the systematic and comprehensive innovation needs the airport service subject to carry out gradual innovation from the aspects of service concept, service process, service carrier, service mode, etc., and finally, it evolves into systematic and all-round innovation. As mentioned above, according to the four-dimensional model of service innovation, service innovation is mainly embodied in four aspects: new service concept, new service delivery, new service customer interface and service technology. Therefore, from the specific path, the civil airport service innovation, are also inseparable from these four aspects of innovation. Because the conditions of each airport are different, it is not impossible for them to go hand in hand at the same pace, nor can they be put in place in

one step. Instead, they are only able to actively promote innovation in the provision of qualified services under their actual conditions, from the service idea, service process, service carrier, service mode and so on, we can realize the gradual innovation from point to point, and finally to the systematic innovation, to realize the qualitative leap of airport service level.

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## SOLUTION OF CLOUD COMPUTING FOR SMEs AT THE GROWTH STAGE

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### **ABSTRACT**

Informatization plays a significant role in improving enterprise management level, reducing cost and enhancing enterprise competitiveness. In recent years, SMEs have gradually recognized the importance of informatization . However, because of small scale, less capital and poor management, which limit the process of informatization . Cloud computing is a good way to solve these problems, it can offers different services according to the demand of enterprises.

This project is focusing on the SMEs at a growth stage, aiming at finding out the main problems of growing SMEs in the informatization progress through questionnaires and to select the most suitable model for SMEs by comparing the 3 models of cloud computing. Later, using a case study, the project tries to prove the correctness of the research. Then, it reaches a conclusion that SaaS is the best service model for SMEs at the growing stage. Finally putting forward some suggestions for SMEs when they use SaaS in the process of informatization.

Keywords: Cloud Computing, SMEs, Informatization, SaaS, PaaS, IaaS.

## INTRODUCTION

## 1.1 Background

Nowadays, with the progress of whole society and prosperity of economic market, enterprise informatization becomes a main trend of enterprise development. It is recognized that enterprise informatization is the basic of the national economy, and a vital mark of enterprise modernization. However, in the process of enterprise informatization, especially the SMEs in an early growth stage may face varieties of problems, people find that cloud computing is a good way to reduce investment and IT professionals in enterprise informatization (Furht and Escalante, 2010). An SME, which stands for small and medium enterprises, has a smaller operation scale, less fund and personnel (Brussels, 2009). The concept of cloud computing is first proposed by Google CEO Eric Schmidt on SES San Jose 2006(Sun et al., 2014). Currently researches find that, compared with other enterprises, SMEs are more suitable to use cloud computing in business due to the high efficiency and pay-asyou-go cost structure of cloud computing (Chang, et al., 2015).

#### 1.2 Research Problem

The research problem is to identify what problems the growth stage SMEs will meet in the process of informatization, and explore which service model of cloud computing is the most suitable model when having those problems by comparing the 3 main models of cloud computing. For solving the research problem, we will use questionnaires to collect the issues which growing SMEs may meet. Then comparing the

3 main models of cloud computing and selecting the best cloud computing model for growing SMEs and put some suggestions for them.

## 1.3 Aims and Objectives

- To learn some basic knowledge about cloud computing and SMEs.
- To gain some conclusions that can support the project through literature review.
- To know which problems that growing SMEs may meet by questionnaires.
- To compare the 3 service models of cloud computing.
- To identify the most suitable model for developing SMEs.
- To put forward some strategies for growing SMEs in informatization process.

### LITERATURE REVIEW

## 2.1 SMEs at the Growth Stage

#### 2.1.1 SMEs

### (1) Definition

SMEs, the abbreviation of small and medium enterprises, it is the enterprise with small operation scale and lacking human and economic resources (Gerald I, Susman, 2007). The definition standard of SMEs varies widely, there isn't the general international standard of SMEs. Different countries have different definitions of SMEs. Even in the same country, different industries have their own definition criteria.

## (2) Characteristics

The characteristics of SMEs are as follows:

#### Market

SMEs occupy a small part of their marketplace, besides, the commerce is depended in a community, but don't have to be local (Carson and Cromie, 1989).

## • Scale

The operation scale and resource of the SMEs is smaller than or medium as other companies in its industry. And that's the reason why SMEs has barriers and limitations in their development process (Loecher et al., 2000).

### • Independence

Most of SMEs are independent, and they don't belong to other larger companies. Therefore, usually, the manager of SMEs is the owners or partowners. They use their own operation strategies rather than the centralized or formalized management structure.

## • Management

SMEs are lacking of managerial skills and time management skills (Broom et at., 1983), so SMEs usually pay more attention in tactical instead of strategic and management. This may lead the SMEs be driven by short-range management perspectives (Ashford and Towers, 2001).

### • Personal Stake

Unlike with the manager of large company, the owner of SMEs have highly decision-making power and enough freedom. The role of them cannot be ignored (Michele O'Dwyer, 2009).

## 2.1.2 Enterprise Life Cycle

Enterprise life cycle theory was first proposed in Ichak Adized's book "Enterprise life cycle" (1979). This book highlights that enterprise in different life cycle stages has to use specific organization structure to justify their developments to gain benefits. And different researchers have different classification methods of enterprise life cycle. According to the enterprise growth evolution, enterprises will be divided into start-up stage, growth stage, maturity stage and decline stage (ECED, 2014).

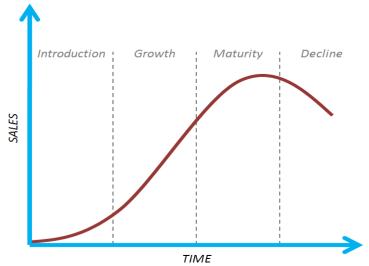


Fig.1 General Enterprise Life Cycle Model

The Fig.1 above shows the general process of an enterprise life cycle. This model will predict the probable course through the enterprise's development process.

### • Introduction

At this stage, enterprises starts to develop their products or services and put them into the market. The development is smooth, enterprise has to appeal consumers to try their products or services.

#### • Growth

From the figure, we can see that there is a rapid growth in this stage. It means the product or the service of an enterprise is accepted by the consumers.

## • Maturity

In the maturity stage, the demand of products and services is stable.

#### • Decline

Enterprises in decline stage means that there are new products entering the market and replacing the old products. So new enterprises start new life and the old one begins to decline.

## 2.1.3 SMEs at the Growth Stage

From above we have a general understanding about SMEs and enterprise life cycle. SMEs at the growth stage are have not only the universality of SMEs but also the character of growth stage enterprises. So, when SMEs begin their growth stage, they are accepted by the consumers and market, and there have great progress in many aspects. Such as: product competitiveness and brand awareness. Under this circumstance, the SMEs have to concentrate on their core competitiveness to expand their operation scale and occupy the market quickly (Xu et al., 2015)

## 2.2 Cloud Computing

## 2.2.1 Cloud Computing

## (1) Definition

Cloud computing is a model to provide convenient and on-demand network entering into a shared pool of configurable computing resource which can be quickly provisioned released with minimal management effort or service provider interaction (Ma, Zongmin, 2016). Fig. 2 shows the basic cloud computing model, servers, storage, applications and services are entered through a common. They are shared between organizations and entered by users or applications.

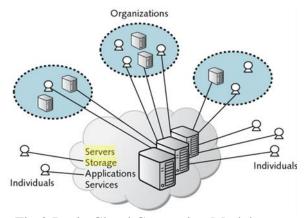


Fig.2 Basic Cloud Computing Model

## (2) Features

### • On-Demand Self-Service

The users can ask and receive their demand by a service providing instead of other workers. Requesting and completing are also automated. Thus, it is good for both users and providers.

#### • Broad Network Access

The consumers can enter the cloud services or applications easily as long as they have network.

## • Resource Pooling

In the general condition, users don't need all resource, the rest of resource not be used may be used by another client instead of waste. If so, the providers can reduce many costs and make their operation more flexible. In addition, to do so, the providers can offer more services to more users rather than each user has to use different kinds of resources.

## • Rapid Elasticity

This is to say the cloud have to react rapidly to reach the user's need. And the cloud deployments should improve the service capacity according to their existing infrastructure.

### • Measured Service

The joint costs should be known clearly, because the amount of cost is based on your requirement, so it's vital to know about that (Rountree and Derrick, 2013).

2.2.2 Three Service Models—IaaS, PaaS and SaaS Cloud computing provides different types of services, there are 3 basic service modes: Infrastructure as a Service (IaaS), Platform as a Service (PaaS) and Software as a Service (SaaS) (Blokland et al., 2013). And these 3 service models offer services of hardware, system and application level in several by a computer's structure (Srinivasan, S., 2014).

#### (1) Definition

#### IaaS

An outsourcing model that users can rent the hardware resources (such as: CPUs, disks and etc.) to support their own manipulations. The providers which familiar by the public including: Amazon Web Services and Eucalyptus.

#### PaaS

A model that cloud providers provide a computing platform including databases, building development environment and other relevant application servers. Users can concentrate on deploying their own applications without worry about maintenance and optimization under this infrastructure. Common PaaS providers including Windows Azure and Google App Engine.

#### SaaS

SaaS provider offers most controls, and it has full administrative rights for its application and actions. Users don't have to deploy, maintain and update their equipment. And the end users can use the services anywhere. Popular SaaS service providers are: Google Apps and Microsoft office 365(Khosrow-Pour, Mehdi, 2014).

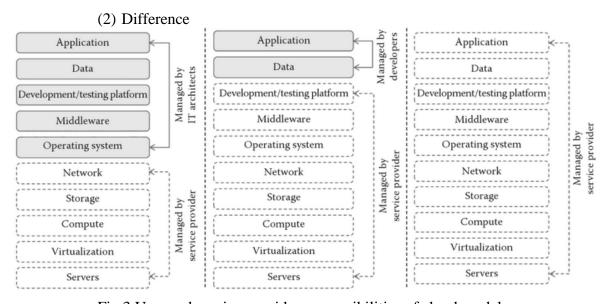


Fig.3 User and service provider responsibilities of cloud model

Fig.3 above shows the difference of those three models.Different cloud computing service models cater different users. Most of IT architects choose IaaS, most of developers prefer to use PaaS and end users usually use SaaS. In IaaS, the end users have to maintain and develop platform and application. In PaaS, the end users responsible to application and data. And in SaaS, the end users don't have to do that but have to carry them out to SaaS providers (K. Chandrasekaran, 2014).

#### 2.3 Related Research

According to Carr (2005), SMEs should try modern software measure without much money through cloud computing. After that, Rittinghouse and Ransome (2009) made a profound explanation on why cloud computing is fitting for SMEs, because of budget. They says SMEs can save lots of cost for IT infrastructure construction and can only pay to cloud computing providers to purchase resources and services. And the research of Gorniak (2009)

presents 3 reasons to prove cloud computing is suitable to SMEs. They are Reduce cost, Flexible and scalable, Business seriality and disaster regression abilities. Marks & Lozano (2010) come up with a cloud computing reference model, there are 4 models included can support business drivers. Surendro & Fardani (2010) holds that SaaS is a more suitable measure for SMEs and public cloud is a benefit approach to obtain their needs. There is also a thought from Lawrence et al. (2010) and Misra and Mondal (2010) that cloud computing is more suitable to SMEs compared with other larger enterprises because of their features. According to Handler et al. (2012) and Rahimili (2013), they hold the view that cloud computing can offer varieties of business models to support enterprises. And Hernández (2013) says that SaaS is the urgent need for SMEs because of their advantages. Besides, RAO (2013) holds the view that SMEs are the economic backbone of each country. SaaS, as its features of less cost, high and strong quality and no breaking down, making its fit for SMEs. However, Reimer et al (2015) proposes that SaaS should solve their risk and security issue when they help companies gain benefit.

#### RESEARCH METHODOLOGY

After literature review, we learn about what have been done by previous research and gain some knowledge support. This chapter will use research process 'onion' model to design our research.

# 3.1 The Research Process 'Onion'

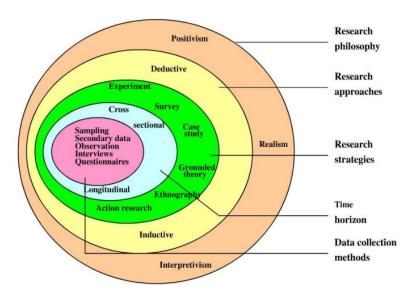


Fig.4 The Research Process 'Onion'

Research process 'onion' is a helpful framework which benefits to our research process, it can make our individual design sector fit together (Dalcher and Brodie, 2007). Besides, using research process "onion" can integrate the all information about research design and present the whole process of research design. It will make the design process more clear and ordered.

#### 3.1.1 Research Philosophy

Our aim is to find out the problems this action can only be done after the literature review, and the results have to be verified. So our research philosophy should be positivism.

# 3.1.2 Research Approaches

According to our research, we will use both deductive and inductive approaches.

# 3.1.3 Research Strategies

# • Survey:

According to the literature review, we have a general learn about the problems and difficulties in different aspects that SMEs at the growth stage will meet. And that information is from literature, so to search the main problems that growing SMEs will meet, we have to do further survey in practice. The advantage of survey strategy is that it's easy to acquire data and information from large amount of people without too much money (Gail Johnson, 2015).

# • Comparative Analysis:

To select the best model for growth SMEs, we have to do further research. Using comparative analysis is because the problem of growing SMEs are same, and the features of the three models are not same. Comparing these three models advantages, disadvantages, model of operation can choose the most suitable one for SMEs in that problems.

#### • Case Study :

A case study will be used in the final stage to prove the validity of the research, through a case study to have a reference and measure that whether the result is reasonable or not in practice.

#### 3.1.4 Time Horizon

Our research lasting 5 months for different individuals, it is a cross sectional research.

#### 3.1.5 Data Collection Method

Our research's goal is to achieve the problems which may affect growing SMEs in the process of informatization, it's to say that our aim is to find problems. And the questionnaire and the interview are the basic methods to collect questions (Thomas et al., 2015). Comparing questionnaire and interview, the reason why we decide to use questionnaire are:

- Low Cost
- Less Time
- High Efficiency
- Wide Scope
- Easy to analysis

#### 3.1.6 Table of Research Process "Onion"

Research Process	Choice
	Choice
Research Philosophy	Positivism
Research Approaches	Deductive and Inductive
Research strategies	Survey, Comparative Analysis, Case Study
Time Horizon	Cross Sectional Research
Data Collection Method	Questionnaires

#### 3.2 Research Flow

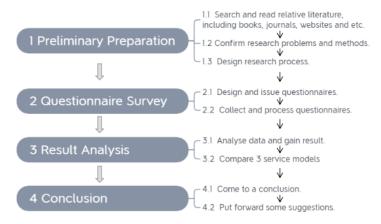


Fig.5 Research Flow

As the research flow, after the research design, we begin to make and issue the questionnaire. We use one month to issue the questionnaire, one month later, the questionnaire will be recycled and dealt by excel. According to the data analysis result, we can choose the best service model for growing SMEs by comparing the 3 models. Then we use a case study to prove our result. Finally, it reaches the conclusion and puts forward some suggestions for SMEs at the growth stage in the process of informatization .

#### **RESULTS AND FINDINGS**

#### 4.1 Questionnaire

- 4.1.1 Design Rules
  - Clear Objective
  - Less and Brief
  - From Easy to Difficult
  - Similar Style
  - Easy to Analysis Data

#### 4.1.2 Questionnaire Design

To sum up from 4.1.1 and basing on the research problem. The questionnaire:

- For avoiding the respondents feeling confused and unclear about some concepts. There will have an introduction of informatization and growing SMEs in the beginning.
- For avoiding the respondents losing patient, we will use similar style of questions, the questions are: The level of XXX's impact on growing SMEs informatization progress.
- For getting data easily collected and handled, we will use the same answer as option.
- There are:•No Effect •Less Effect •Having Effect •Heavy Effect •Conclusive Effect
- We will adopt 5-point Likert scale. In fact, it's feasible to use 3-point Likert scale. But using 5-point Likert scale can show the precise information. It's an easy method to find out the main difficulties and ordinary difficulties.

- There are 10 questions, including 9 optional question and one open question: In addition to the above aspects, what factor may influence the growing SMEs informatization progress? This design obeys the rule of 'less and brief 'and 'from easy and difficult'.
- The questions are designed basing on the features of SMEs and information of cloud computing. For example, lacking of money is a feature of SMEs, so we will put a question about impact of less money on growing SMEs informatization progress.

The questionnaires are presented in Appendix (page IV).

# 4.1.3 Questionnaire Issuing

• Platform:

The questionnaire be issued in a website named 'star of questionnaire', the address of this website is: http://www.sojump.com/

• Time:

This questionnaire survey lasting 1 month.

• Language:

To appealing more people to finish the questionnaires, we make 2 versions of the questionnaire. One in Chinese and one in English.

Amount

It is better that the amount of questionnaires can beyond 300 so that we can have more accurate information. So, to get enough amount of respond, I send the link to my friends and family members on social application. Besides, the 'star of questionnaires' has a function that grant bonus to the respondents. This is a valid approach to appeal respondents more and quickly.

#### 4.1.4 Questionnaires

The amount of questionnaires is not too big, and for making our result more precise, we will use all questionnaires instead of using sampling strategy.

#### 4.2 Data

# 4.2.1 Type of Data Collection

There are 2 types of data collected with the function of analysis of 'star of questionnaire'.

• Choice question

The amount of each option in each question. Every question has its own table, and every table shows the amount of each option.

Open question

Text of every open question's answer.

# 4.2.2 Data Analysis Tool

The table shows the amount of each option of each question, every question has its own table, using these tables can obtain the main difficulties.

The question and answer option of questionnaire are in one style, just has one open question. And the 'star of questionnaire' is a very convenient platform, we can use the tables they provide to analysis data directly. The tools we will use:

• 'Star of questionnaire'

Using analysis function of 'star of questionnaire' to record the amount of each option of each question.

Excel

Because we just want to know which problems will be met in growing SMEs informatization process, so we don't have to do special work to deal the data,

just sum up the amount of Chinese version and English version and to get the final amount.

And we have to record the answer of open question downloaded from the platform into Excel which can convenient for our analysis.

# 4.2.3 Data Presentation

The data of every scale question will be presented into a bar graph. Using Excel can create different types of tables, choosing bar graph to present the data because:

- It's easy to know which option has been chosen and more or less. So we can compare the 5 options directly by using bar graph.
- The 5 option placed in abscissa axis in order, and these 5 option is a step by step process. From 'no effect' to 'conclusive effect'. So through a glancing that we can know which bar represents which option from the left to the right.

# 4.2.4 Data Analysis Way

- Option Question
  - By observing the bar graph, if the option 'heavy effect' or 'conclusive effect' occupies large proportion, it will means this problems will be met in the process of growing SMEs informatization. The specific standards to judge the problems have to be discussed according to the table and situation.
- Open Question
   The open question's answer will be recorded and classified to judge the problem.

# **4.3 Questionnaire Collection**

It takes one month to conduct the questionnaire. Finally, by collecting and calculating, there are 312 questionnaires have been filled out, including 23 English questionnaires and 289 Chinese questionnaires. There are no blank papers and every question has been done, because once someone entering and starting to answer the question, he/she has to finish every question, unless he/she closes the page and leaves. But if they do so, they can't achieve the bonus. In open question, 257 respondents write 'No' or 'None' as their answer, it's not surprised, because the former 9 questions covers almost all aspects according to literature review, and it's a very normal thing that respondents don't want to spend long time to think about the question without options. So in general, the total amount and questionnaires' condition reach expected.

# **4.4 Data Analysis**

# 4.4.1 Option Question

The bar charts of each option question are presented in Appendix (Page VI).

The bar charts show the amount and percentage of each option in each question. We found that the answer in previous 8 questions are most in 'have effect', 'heavy effect' and 'conclusive effect', because these aspects may affect growing SMEs informatization progress are all coming from literature review. It's to say that most of respondents are agree to previous thoughts and conclusions. The highest sector is always the answer 'heavy effect', and 'conclusive effect' are also occupying significant proportion. In other words, these 8 aspects are all important problems in the process of growing SMEs informatization. However, unlike with the former 8 questions, question 9 which according to government support has high votes in 'little effect'. It's so say, in the process of SMEs informatization, lacking of government support just cause little effect, so this factor are not main problem has to be solved. The analysis of each problem is as follow:

# Lacking of enough fund

Informatization construction has to pay lots of money to purchase equipment, set up their platform and etc. Whereas SMEs, especially at the growth stage, they have just been accepted by the public, and the top mission of them is to appeal more consumers and improve brand influence. So at this stage, they don't have enough money to develop informatization. So lacking of fund makes is an important problem in the growing SMEs informatization progress.

# • Lacking of enough professional personnel

Conducting informatization construction is a professional work, so professional personnel is indispensable. However, SMEs have less amount of staffs and professional personnel. Besides they don 't have enough money to employ many professional personnel to do this work. So lacking of enough professional personnel is also a big problem.

# • Lacking of informatization equipment

The informatization equipment will cost a lot, some SMEs reject to buy it. And being short of professional personnel will cut down the function of the equipment. Sometimes, we just need one function of the equipment but we have to buy the whole set of the equipment, it's really a waste.

# Lacking of systematic management

From the literature review, we got that the SME's leader has huge right to manage the enterprise, it's nearly that the leader is the decision maker without other discussions. So the SMEs are lacking of systematic management. In this way may cause weak ability to operate the whole company, not to mention the informatization construction.

# • Having difficulties in setting up own informatization platform

Lacking of research and development fund, professional personnel and informatization equipment, to set up own platform is a hard work. But using existing platform can't satisfy the individual needs. So setting up own informatization platform is also a troublesome thing.

# • Having difficulties in software engineering

Similarly, with the reality of lacking money, professional manpower and platform, it's impossible to engineer the application and software to conduct the informatization progress.

# • Lacking of data sharing

Basing on the above, be short of systematic management, each department has less contact with other department. So the data are not shared, this condition causes big trouble in the process of fulfilling informatization. Besides, because the imperfection of this point, many work have to be delayed, and causing long working run time and low operation efficiency.

#### • Information safety

There aren't laws creating to regulate the problem of information safety, many growing SMEs worry about that and affect their informatization construction.

# • Lacking of government support

The government always provides support and help to the large enterprises or state-owned enterprise. So the growing SMEs with poor condition and without government's support will meet many difficult. But this thing isn't directly effect on informatization construction.

# 4.4.2 Open Question

The open question is: In addition to the above aspects, what factor may influence the growing SMEs informatization progress?

As we said before, there are only 55 questionnaires that the open question's answer are not 'NO' or 'None'. And the answers are in different styles, so we integrate and conclude them answers.

- Ignoring the importance of informatization (23 individuals)
  I think the reason why SMEs at the growth stage ignore the importance of informatization dues to the features of themselves. According to the features of the SMEs, it's their core section letting them stand out and accepted by the public. So at the growth stage, they have to pay more attention to their core advantage construction to appeal more customers. So most of money and time will spent in developing their core technology, and others will be ignored.
- Low anti-risk capacity (13 individuals) SMEs at the growth stage have less financial resource and experience, once meeting some emergency, they may suffer huge damage. So in this stage, they do not try the unfamiliar things.
- Lacking of related policy and legislation to protect them.(19 individuals) Although SMEs are the enterprises which full of energy, they are also vulnerable group. They have less money, scale, personnel and resource, even the government support. So they are careful of everything if there aren't related policy to protect.

Generally, these 3 answers total occupy 17.6 %, 7.3 %, and 6.0%. They are all in small percentage. Besides, these 3 condition can't be changed easily. Our final destination is to find out the tool to help SMEs, but these 3 situation can't be improved by a tool. They need support on consciousness. So these 3 problem are not main difficulties in informatization process.

# 4.4.3 Problems Conclusion

Through analyzing and discussing the data, we have acquired the main problems and difficulties of growing SMEs in their informatization process.

- Lacking of enough fund
- Lacking of enough professional personnel
- Lacking of informatization equipment
- Lacking of systematic management
- Having difficulties in setting up own informatization platform
- Having difficulties in software engineering
- Lacking of data sharing
- Information safety

#### 4.5 Most Suitable Service Model

After concluding the main problems will be meet in the process of growing SMEs informatization progress. And according to the literature review, we got some knowledge about IaaS, PaaS and SaaS. Through integrating and extracting we can make some comparison, Table 2 will show a intuitionistic result. The function which models have will use  $\sqrt{\text{to}}$  represent.

**Table 2** Comparison of 3 Service Models

Function	IaaS	PaaS	SaaS
Customization Execution	2		
Environment	V		
<b>Customization Platform</b>		$\sqrt{}$	
Most Services			$\sqrt{}$
Minimal Cost			$\sqrt{}$
Minimal Manpower			$\sqrt{}$
Minimal Resource			$\sqrt{}$

From the table we can recognize that the SaaS has the maximum advantages among the 3 models. But it's not the more the better, SaaS has its shortages. It can't provide customization execution environment as IaaS and customization platform as PaaS, that's why it cost minimum. So we can't say that SaaS is the best model of cloud computing. However, for SMEs at the growth stage. They don't have enough money, manpower and resource, and most of SMEs don't need customization execution environment and platform .They demand the tool with more services to help them and only focus on their core competitiveness. So it means, from the view of functions of 3 models and needs of growth SMEs, SaaS is more suitable for SMEs.

Meanwhile, during the process of growing SMEs informatization , SMEs may face many problems and difficulties, to select the most suitable service model for SMEs, we have to inspect the circumstance of problems figuring out. Table3 will show the problems and difficulties can be solved by those 3 models. To make our table brief and clear ,in the table ,problem 1 Lacking of enough fund will be presented as 1 ,problem 2 Lacking of enough professional personnel will be shown as 2 .And the problem can be solved by the model will use  $\sqrt{}$  to represent.

**Table 3** Problems Can Be Solved by Different Models

Models Problems	1	2	3	4	(5)	6	7	8
IaaS	V	V	V					
PaaS	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			
SaaS	1	V	V	V	V	$\sqrt{}$	$\sqrt{}$	

Table 3 shows the problems from SMEs that can be solved by cloud computing models bases on the knowledge from literature review and research from practice. According to the table, we find:

- SaaS can solve the most problems from growing SMEs.
- All service models have difficulties to insure the security problems.

Thus, from the comparison of both function and problems solving, we consider that the most suitable cloud computing service model for growing SMEs in informatization process is SaaS.

To sum up, using SaaS, SMEs can cut down lots of cost of fund, manpower and equipment. They can hand over the relevant work, even all the work to SaaS and just pay high attention to their construction of core competitiveness. In this way, they don't have to worry about the part they are weak in or refuse to do. At the same time, SaaS can help a SME set up platform, achieve rapid deploy, provide services as soon as they need greatly to

enhance their work efficient and avoid waste. So, for most of growing stage SMEs, SaaS is the best choice as their informatization tool.

# 4.6 Case Study

# 4.6.1 Case Description

Heilongjiang Saibao Information Engineering Supervision Co., Ltd is a growing SME which devote to supervise information engineering and provide technology consultation funded in 2003. Saibao located in Haerbin with 5 million registered capital and 320 square meters floor space. Since the company established, the business has developed rapidly and gained good brand reputation. However, with the increasing amount of business and scale of operation, the traditional artificial supervision method cost lots of manpower and still can't reach the business needs. Saibao company has a set of information management system, but it just used to input data and difficult to achieve information communication. Besides Saibao is a service SME, they don't have professional IT department for daily resource maintain and enough money to realize informatization construction. Due to these problems, Saibao company can't be able to concentrate their core competitiveness.

To solve these problem, the leaders realize that they must use modernization method to improve their operation and management skill. Considering both the situation and science technology, they decided to use SaaS to strengthen their informatization level.

Using SaaS, they get many benefits:

- Reach the requirements of business.
- Improve the efficiency and reducing the mistake ratio.
- Don't have to maintain the system.
- Reduce most of cost. (The cost of SaaS is 7200 yuan, its only occupies 0.18% of turnover.)
- Pay attention to their own core competitiveness.

#### 4. 6. 2 Case Analysis

From the case above, we can see a growing SME using SaaS to fulfil their informatization construction successfully. We can find the meaning and benefits of SaaS for this enterprise.

- Regulate the management flow
  - SaaS helps them change the typical supervision method. According to the function of SaaS, if there is a mistake, the process will stop. In this way, reducing many mistakes. In addition, this management platform ensures their work orderly. Through data sharing can save a lot of time.
- Enhance communication
  - For this enterprise, the supervisors have to conduct work in different places, it's difficult to communicate with each other. By the use of SaaS, they can contact with other through Internet, offering large convenience.
- Reduce Cost and Time
  - Using SaaS can cut down fund of informatization construction, reduce system conduction cycle. Enterprises don't have to purchase hardware and employ professional staff. They just have to pay the fee according to their requirements and obtain the services immediately.
- Easy to Maintain and Operation
  When there are some mistakes appearing, enterprises don't have to solve by themselves, the SaaS provider will settle the problems. Maintaining the system is also done by SaaS provider.

# • Satisfy Individual Requirements

Enterprise can buy different kinds of SaaS services according their needs. Generally, this enterprise is an ordinary and widespread SME at the growth stage. They meet some similar questions as other SMEs in their informatization progress. They don't have enough fund, cost and personnel, and they are in low level of informatization that lacking of hardware and software resource. Besides, management has some shortages. By the use of SaaS service, these problems can be solved. And SaaS also provide many benefits and conveniences to the growing stage SMEs that can let enterprise focus on their core competitiveness.

In conclusion, this case study can be an epitome of our research from finding problems to selecting tools to solve problems, each step of this case is similar with our research result. Therefore, this case study offer reference for our research, and to a certain degree, this case can proof the correctness.

# 4.7 Suggestions for SMEs at the Growth Stage

From our research, we find that SaaS can provide lots of advantages to growing stage SMEs in their informatization progress. Nevertheless, from both literature and our questionnaire, they are all showing that the cloud computing models has weakness in security. It may causes information stolen or destroyed. And that's why many enterprise don't choose cloud computing even though they have lots of advantages.

Thus, here are some suggestions when enterprise selecting SaaS service:

- Pay as you go
  - Enterprise should pay for the part they use rather than pay an integral charge. Sometimes, there may have changes for the use of service. So to clear about the service you use and then pay for it.
- Clear about what you need
  - Choosing the SaaS provider that can satisfy your personal demand instead of traditional and general service provider. It's not to say that the more services offered the better, more services maybe represent common and banal, even cause waste. The provider that can reach your demand and can offer personalized services is the most suitable for your enterprises. So learning about what you need is the first step before select cloud computing tools.
- High reputation provider
   SMEs has poor anti-risk ability, so choosing a high reputation SaaS service provider may reduce the risk in their operation process.
- Experienced service provider
  - Selecting an experienced SaaS service provider. Because these providers has many successful case may have higher degree of letting your enterprise be successful. Meanwhile, these provider has many practice experience, they may help you to reduce the risk in your operation process.
- Pay attention to the security problems
  - To know the security problems which may cause threaten to your company. Be clear about who have the right to access the server? If there is an encryption technique? Is there any protecting measure to protect the database? To have a clear understanding each part which may lead loss.

# Back up function

Data and information are really vital for an enterprise, once losing them may cause great loss. Thus, demand your SaaS service provider to back up your data and information before carry out other deployment.

#### CONCLUSION AND DISCUSSIONS

#### **5.1 Conclusion**

Along with the development of the whole society and boom of the market, SMEs are becoming more and more common and they play an important role in the global market that can't be ignored. At the same time, as the rapidly development of science technology, enterprise informatization turns into the main trend. However, SMEs, especially, the SMEs at the growth stage may meet many difficulties in the process of enterprise informatization, such as: lacking of money and resources. Cloud computing provide some services may help SMEs overcome these difficulties. Thus, to explore the more suitable services of cloud computing for growing SMEs, this project conducts a research to seek for the problems of SMEs when they going into informatization, then, through comparison select the most appropriate service model----SaaS, and using a case study to prove the validity of this conclusion. Finally giving some suggestions for SMEs when they use SaaS.

#### 5.2 Discussions

Our research is focusing on the current topic and hot issues: SMEs informatization and cloud computing. Basing on the theoretical basis of literature and practice situation to find out the question objectively. And according to the problem to design and conduct a research. In the research, choosing questionnaire to search and collect problems. This is a convenience and efficient survey method to collect issues without much money, time and resources. Besides, using questionnaire to survey can obtain more and wide feedback from the public. The data recycled from questionnaires can be more actual and valid. Then, through excel to deal the data and present the result in the bar graph, which can show the result intuitively and provide a great convenience for our next step analysis. After finding out the main problems from data and information, using the method of comparison to come up with conclude. And a case study followed to prove our research. Finally, on the foundation of the research conclusion, putting forward some suggestions. This project can be a reminder for SMEs telling them the problems they may meet, and provide solutions and suggestions for them when they go into informatization . At the same time, it's also benefit for SaaS providers to create more prefect and safety service.

In general, the research is conducted objectively and logically. However there still some weakness and long way to go of the research. Firstly, although the amount of questionnaires is enough for us to analysis problems, if there are more questionnaires can be collected may provide more correctly result. At the same time, most of respondents are Chinese, so maybe the result of data analysis is more suitable for Chinese growing SMEs. Besides, with the rapidly development of science technology, some enterprises start to use different types of service model together rather than only use one of them. What's more, the problem of security is always the vital part along with informatization that can't be ignored. Thus, there can have more research and work to do to explore more profound issues.

#### **5.3 Future Work**

- More Questionnaires
- Our questionnaires has poor coverage, only has Chinese and English version.
  This may cause our result one-sided. In the future, we can use more methods
  to appeal more respondents to answer our questionnaire, to obtain more
  extensive answer.
- Different Service Models
  - In our research, we conclude that SaaS is the best cloud computing service model for SMEs. In the future, we can explore if it necessary to use several service models running together. And which models used together can get what effect.
- Different Enterprise Stages

  Each stage of an enterprise is important, we can have some more research on enterprise in different types and SMEs in different stages. To search more problems and difficulties and more solving tools
- Security
   As long as something involves with network, there is a problem can't be ignored---security. Thus there have more work to do to study security issues.

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# **Appendices Questionnaires**

Introduction: Informatization plays a significant role in improving enterprise management level, reducing cost and enhancing enterprise competitiveness. In recent years, SMEs have gradually recognized the importance of informatization . SMEs at the growth stage is an SME, which just accepted by the public and doesn't go into maturity. Following are some questions about difficulties of growing SMEs.

- ① The level of lacking of enough fund's impact on growing SMEs informatization progress.
  - •No Effect •Less Effect •Having Effect •Heavy Effect •Conclusive Effect
- 2 The level of lacking of enough professional personnel's impact on growing SMEs informatization progress.
  - •No Effect •Less Effect •Having Effect •Heavy Effect •Conclusive Effect
- 3 The level of lacking of informatization equipment's impact on growing SMEs informatization progress.
  - •No Effect •Less Effect •Having Effect •Heavy Effect •Conclusive Effect

- 4 The level of lacking of systematic management's impact on growing SMEs informatization progress.(lacking of systematic management may result long information deploy cycle in informatization progress.)
  - •No Effect •Less Effect •Having Effect •Heavy Effect •Conclusive Effect
- 5 The level of having difficulties in setting up own informatization platform's impact on growing SMEs informatization progress.
  - •No Effect •Less Effect •Having Effect •Heavy Effect •Conclusive Effect
- 6 The level of having difficulties in software engineering's impact on growing SMEs informatization progress.
  - •No Effect •Less Effect •Having Effect •Heavy Effect •Conclusive Effect
- 7 The level of lacking of data sharing's impact on growing SMEs informatization progress.
  - •No Effect •Less Effect •Having Effect •Heavy Effect •Conclusive Effect
- 8 The level of information safety's impact on growing SMEs informatization progress.
  - •No Effect •Less Effect •Having Effect •Heavy Effect •Conclusive Effect
- 9 The level of lacking of government support's impact on growing SMEs informatization progress.
  - •No Effect •Less Effect •Having Effect •Heavy Effect •Conclusive Effect
- ① In addition to the above aspects, what factor may influence the growing SMEs informatization progress?

Bar Chart of Each Question

# CHANGE AND INNOVATION OF CHINA'S EDUCATION SITUATION STARTS FROM CONSCIOUSNESS

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#### **ABSTRACT**

In the current situation of education in China, most educators are just doing a job to make a living, and there is no emotional or spiritual input. The education system shows both destructive education and predatory inspiration. It deprives children of the opportunity to explore the wonders of the world and prematurely kills their thirst for knowledge and creativity. How to change and innovate? This question is nothing new in countries with advanced education. But China's education situation is showing signs of backsliding, and a series of policies have failed to improve it. What is the root of this? What can be done to see signs of change? If the educator does not have enough vision pattern, cannot stand in certain civilization height, does not have enough understanding to the children, the educational system reform can only be a pile of waste paper. Based on Marx Weber's theory of understanding sociology, the significance and purpose of human social activities are studied. The purpose of this paper is to analyze the root of these problems lies in the fundamental deviation of family and school from education. This paper offers a proposed conceptual framework to change people's cognitive consciousness to inspire more people to think and improve themselves. Small changes can make a big difference. It doesn't take a big budget or a big strategic plan. It takes a smarter way of thinking about what you have and where it is. We tend to look to the outside world for answers, and spend less money, time, and energy digging for what we have.

**Keywords**:Educator, Marx Weber, education, ideal type, social action, change, innovation, children.

#### INTRODUCTION

#### 1. 1 Problem Statement

In the current situation of education in China, most educators are just doing a job to make a living, and there is no emotional or spiritual input. The education system shows both destructive education and predatory inspiration. It deprives children of the opportunity to explore the wonders of the world and prematurely kills their thirst for knowledge and creativity.

# 1. 2 Research Objectives

An educator does not need to be an expert in a particular field, or have a strong sense of cultural mission, or even be deeply worried about a country, a nation, or a human being. But he needs to understand and love children and be able to guide them to the real world and life. The richness of the world, the vastness of civilization, the variety of life, he must understand. What he had to do was to take them in this direction and give them whatever they needed along the way.

# 1. 3 Research Questions

But China's education situation is showing signs of backsliding, and a series of policies have failed to improve it. What is the root of this? What can be done to see signs of change? If the educator does not have enough vision pattern, cannot stand in certain civilization height, does not have enough understanding to the children, the educational system reform can only be a pile of waste paper.

# 1. 4 Significance of Researcher

Education reform is embedded in the society, the social ecology is not ideal, education reform is difficult to succeed. It is very difficult to reform the system in China. To be able to make small changes in difficult situations, it is better to make changes in the whole social consciousness than to shout slogans in vain.

However, people's understanding, attitude and evaluation are limited and certain. We know only the finite part of the infinite. The capacity and will of man to adopt a conscious attitude towards the world and to give it meaning. After all, what culture and science face is not the fact of "presence" itself, but the behavior. Behind the behavior are people, thoughts, emotions and value orientation. Once there is a change in consciousness, people will do the same thing.

#### 1.5 Theoretical Framework

Based on Marx Weber's theory of understanding sociology, the significance and purpose of human social activities are studied. Understanding is a prerequisite for explaining the causation of social facts. There are two ways of understanding it; The first is the theoretical analysis of social action; One is to participate directly in social action, which is understood by the participants through their inner perception.

# **Underpinning Theories: Understanding Sociology Theory**

In Weber's opinion, the research object of sociology is people's social action, and people's social action is subjective intention and motivation. Research must first try to understand people's social actions. Grasp the meaning that the actor gives to the action. It is a rational understanding of the motivation of actors, but also a further understanding. Because intuitive understanding often only knows what social action "is" or "what", while interpretive understanding can make clear the "why" of social action.

"Man is not an accomplice of fate, but a dynamic, dynamic subject." His range of choices is one possible space, and the direction of historical change is uncertain." In Weber's opinion, sociology should "take the action of individual machine as the basic unit", "the individual is the final and only carrier of meaningful action". Therefore, empirical verification is to look for specific circumstances of a social phenomenon, rather than for laws with universal causal effect that "the whole determines the whole". (Weber,1944)

Weber believes that it is necessary to use ideal types as analytical tools in social science research. The ideal type is a conceptual form in which researchers select and emphasize some important typical features of an object, while discarting or ignoring other minor atypical features. It must be based on logical consistency and must not violate empirical causation. It should be emphasized that ideal type is a theoretical abstraction based on reality and a subjective construction of researchers. It is not equal to reality itself, nor can it find its exact equivalent in reality. Ideal types are of great value in the study of complex social phenomena. It makes the concept of sociology clear and helps to reveal the logical relations between various social phenomena. It can highlight the most important and purest features of some social things, and achieve the purpose of in-depth understanding of this phenomenon by comparing the difference between the actual situation and the ideal type. It

enables sociological research to transcend individual and special phenomena and rise to a general and universal height, so that relevant phenomena can be compared by reference to standards, and thus make comparative analysis possible.

Interpretive sociology based on Ideal Types.Now it is reasonably clear that the kind of meaning interpretive sociology is mainly interested in is "the theoretically conceived pure type of subjective meaning attributed to the hypothetical actor or actors". (Weber,1944)

From Weber's perspective, it can be found that the more a society is in political and social crisis, the more the problem of education will rise to a serious object of thinking. In connection with this, when a society is faced with educational and cultural crisis and retreat, the academic ideological research needs paradigm breakthrough.

Becker (1993) appeals to the reader: "I am going to talk about a different kind of capital. Schooling, a computer training course, expenditures on medical care, and lectures on the virtues of punctuality and honesty are capital too, in the real sense that they improve health, raise earnings, or add to a person's appreciation of literature over a lifetime.

Consequently, it is entirely in keeping with the capital concept as traditionally defined to say that expenditures on education, training, and medical care, etc., are investments in the capital.

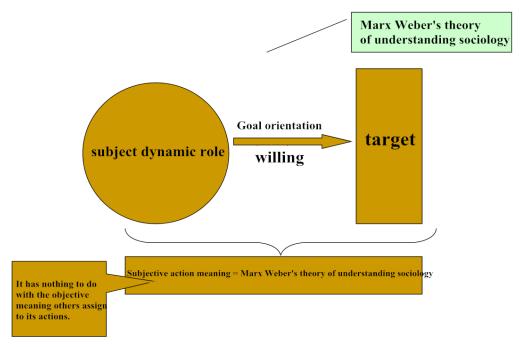


Fig .1 Marx Weber's Theory of Understanding Sociology

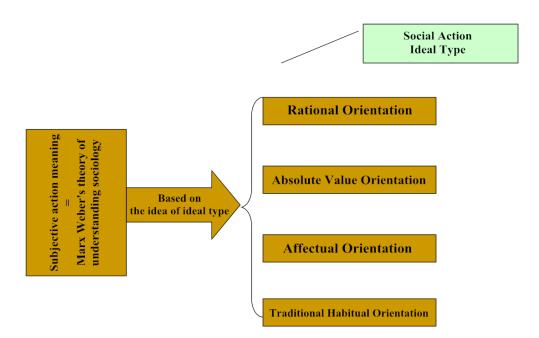


Fig.2 Social Action & Ideal Type

#### RESEARCH METHODOLOGY

This study employs a descriptive research method, the purpose of which is adopted to describe and explain the existing phenomena, laws and theories through my own understanding and verification. Ask questions, reveal shortcomings, describe phenomena, explain practical problems and view some current situations.

The basic research idea of this study can be summarized as: to find the true question to explain its causes -- to seek its solution -- to put forward presuppose.

#### RESULTS AND FINDINGS

This section discusses the results and findings of the research.

# 4.1 System Problem

Chinese education is now a game of chess between quality-oriented education and exam-oriented education. On the surface are quality education, but in essence in pursuit of exam-oriented education. Finally, Chinese family education, to a large extent, is also the pursuit of utilitarian education, exam-oriented education.

Although China's basic education is now transforming from "exam-oriented education" to "quality-oriented education", it is advocated to cultivate students' creativity and independent thinking, and stimulate their love and interest in knowledge. As far as I am concerned, it is still a slogan. The status quo has not changed much, and there are even signs of backsliding.

Under the current exam-oriented education system, primary and secondary education is a thousand schools on one side, the assessment of student performance is the same: standardized test questions, standardized answers.

Zheng Qiang, secretary of the party committee of Taiyuan university of technology in China, pointed out that: Another mistake in Chinese education is to instill knowledge in a

rigid and excessive way. Chinese students are forced to accept too much knowledge before they enter college. Their premature "maturity and understanding" greatly frustrates their desire for knowledge and destroys their development potential after they arrive at college.

#### **4.2 Educators Problem**

Education seldom considers the needs of children, but imposes the will of adults on them, forgetting the most fundamental purpose of promoting the development of children themselves. Schools for their own honor, the one-sided pursuit of graduation rate, rarely consider students physical and intellectual development.

Teachers are in great demand, and their level is uneven. They may not have high quality, but they can be teachers at school just because they graduated from a normal school and have such qualifications. Education is mixed with utility and benefit, and is no longer pure. They are not able to do a good job as a teacher, which is a job for survival.

As we all know, educators need to understand and love children and guide them into the real world and life. He wants to understand the richness of the world, the vastness of civilization, and the complexity of life. What he had to do was to take the child along the way and give him whatever he needed along the way. Every first-year normal student has seen these basic educational concepts in textbooks, but the understanding and practice of these concepts cannot bring stable and long-term jobs, so no one takes them seriously.

Why do these things happen? It is not only the system, but also the limitation of people's consciousness and cognition. Not making changes will only lead you further astray.

For a news incident that happened recently, a girl under the age of 11 was able to trigger her own independent thinking by reading a famous book, and think deeply about the problem, and wrote an article with two sides of human nature. Isn't it important for children to write essays and keep diaries? Isn't it important to let children think independently through observation and attention to life, so that they will have the ability to look at problems independently in the future?

But her teacher was dissatisfied with this article, saying that this article is not positive enough but is promoting negative energy. The little girl was full of confidence in the article she wrote. After the teacher criticized it, she chose to commit suicide by jumping off the building. This is a sad ending.

What is positive energy? What is negative energy? Shouldn't there be a bad side in this world? Should we force a child to pretend not to see the bad side? Obviously, as a teacher, she stifled a child's personality. She took a unified standard to require every student to behave in a way. To grow up in accordance with this teacher education policy, each child's independence, individuality, and innovation will be stifled early. This is why it is difficult to have a Nobel Prize winner in China.

# **4.3 Family Education and Social Problems**

The conflict between parents and children is often caused by parents trying to impose their own will on their children and force them to give up their thoughts, but always trying to change and fill their minds with their own thoughts.

How to improve the quality of parents, with the real awareness of parenting to achieve the indispensable family education, rather than all thrown to the school. School education can only give part of the quality of moral education or more from the family education.

Let me give another example. There is a girl who said that she really likes literary creation as soon as she went up. She has been engaged in literary creation for five years. Since the third grade of primary school, she has tried to write by herself. All the way, she

wrote by herself. With 56 novels, it can be said that there are nearly 300,000 words. The girl's liberal arts scores have always been good, but the sciences used to be less than ideal.

The girl's father was very worried about this situation, thinking that his daughter was wasting time on things that seemed unrelated to learning. The father got angry and tore off these novels in a fit of anger and rushed into the daughter's room. Sealed all the extracurricular books with tape. He told his daughter that all this is good for her and that after she is admitted to university, she can do what she wants to do again.

Many parents feel that their children are particularly disobedient, ignorant, unable to communicate, and cannot understand when their children are adolescent, but they ignore them. When they should build trust with their children, they should use their love to warm and understand children. When the children wanted to communicate with them, how did they personally block the way of communication. How did they ignore her and push her away when the children reached out for help from them.

Many children follow their parents as an example from an early age. However, when you use unreasonable ways to destroy these children's innocent dreams step by step, their trust in you will also be exhausted over time. Being a parent is very simple and does not require examinations; but being a qualified parent is very difficult. Many parents find that their children are becoming more and more distant from themselves after their children are adults, and they always feel that this is a rebellious period and that the children are not sensible. I don't rule out the possibility of rebellion, but as time grows, they still get more and more alienated from you after graduating from college and working. Do you really think this is just the cause of rebellion? Haven't you ever done anything excessive to them? Didn't it hurt them? Don't you really reflect?

Society takes an evasive attitude towards sex education and bloody violence education instead of guiding them how to face and protect themselves properly. Always think they'll understand when they grow up. Now the network information age, the information dissemination is developed. Wouldn't the kids see it through other channels? The more taboo it is, the more curious it is, and the more likely it is to go down a dangerous path without educational guidance. Excessive protection is not protection, but harm, even backward and chaotic social times.

#### **CONCLUSION AND DISCUSSIONS**

Based on its extension of Marx Weber's theory of understanding sociology. Weber proposed to construct an illusory world with ideal type to scientifically order the existence of reality. The ideal type is in essence one-sided and stylized, teleological and rationalist. It is only a "utopian" model, which has only instrumental value in realizing the goal of cultural science: the knowledge of concrete reality. The general theory of natural science is to materialize this virtual world of images and examples. This is how we used the ideal type in this study: as a container only, its actual utility must be tested during the actual study. The role that researchers play in constructing ideal types of value-related interests provides reasons for the differences in research perspectives and ensures the open reconstruction of social and historical phenomena in social sciences. Benefiting from this methodological debate, this study proposed a new ideal type such as "changing people's cognitive consciousness", and recast and reconstructed the existing ideal type in the new configuration.

We must help children to see the fact that scared on this spiritual and scared on this secular intertwine all the time in our life. We must not let them be eliminated from the scaredness of life.

How can we achieve change and innovation? It reminds me of Prof. Anil K. Gupta's speech at the "World Innovation Summit for Education": "When you want to move from inertia to innovation, that the technology that you need how to do that, but you also need institutions, need a culture of creativity, wish you to push you to try a solution which is unconventional, which is different."

Educational change and innovation are embedded in the society, the social ecology is not ideal, change and innovation is also difficult to succeed. It is very difficult to reform the system in China. To be able to make a small change in a difficult situation, rather than empty Shouting slogans here, it is better to let the whole social consciousness make a change, once people's consciousness has changed, they will happen to do the same thing.

Our social atmosphere is too utilitarian and does not value our own fun. To develop the joy of reading for everyone, everyone must have the freedom to choose and be able to access various types and styles of books. Only in such a wide range of reading can one discover one's own interest and cultivate one's own interest in reading. Why didn't we cultivate the joy of reading before? It is because our education is too narrow, and because the books we read are for "exams." Then, to develop everyone's pleasure is to do the opposite, so that everyone has the freedom to choose and can access various types and styles of books. Only in such a broad reading can one discover one's own interest and cultivate one's interest in reading. When you have interest, you will want to explore, and exploration will trigger your own thinking. Once thinking and exploration begin, it will open up your creativity and innovative thinking.

Learn to think, think, and explain from daily life. Because in the future you have to explain the society and the world. You must first develop this ability by explaining the surroundings. To cultivate your own thinking skills. Reading and thinking about daily life. These two things are mutually contrasting and mutually reinforcing. The more you learn about book theory and the deeper your understanding, you will have a deeper understanding when observing the life around you, your consciousness will gradually change, and your cognition will have a higher level. It is important to understand that a person's accumulation of knowledge and academic qualification cannot be completely equal. Maybe he hasn't read any books, but in a certain aspect he can be your teacher to teach you. Academic qualifications do not mean everything. There are many things in this world that you can't learn in the classroom. You can learn different knowledge when you experience different environments.

Once a person's consciousness changes, it will slowly affect several people, a group, and spread to the entire society, the entire country and the world. We will begin to reform, start to innovate, and lead new directions.

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# ON INTANGIBLE CULTURAL HERITAGE RESEARCH ON THE INHERITANCE AND DEVELOPMENT OF "WUHU IRON PAINTING" IN WUHU CITY

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#### **ABSTRACT**

As the first batch of national intangible cultural heritage, iron painting in Wuhu, Anhui Province, has a history of more than 300 years and is one of the unique handicraft works in China. The intangible cultural heritage with high cultural and artistic value. Wuhu Iron Painting is an important cultural card for Wuhu, which has a deep cultural accumulation. However, at present, Wuhu Iron Painting is facing the embarrassing situation of high age of inheritance and scarcity of practitioners. If we do not pass on their absolute life in time and publicize it, we may face the danger of death and art. Therefore, we hope to know their understanding of Wuhu Iron Painting as a national intangible cultural heritage, and what opinions and suggestions they have for its inheritance and development on the basis of a questionnaire survey among the general public, so as to provide some reference for its inheritance and development.

Keywords: Wuhu Iron Painting; Inherit; Development; Intangible Cultural Heritage.

#### INTRODUCTION

# 1.1 Research background

Wuhu iron painting is not only a famous Chinese traditional arts and crafts, but also a wonderful flower in the Chinese cultural art market. Iron painting originated in the Kangxi period of the Qing Dynasty. It is characterized by black and white, virtual and real, vigorous and dignified, unrestrained and unrestrained. It not only has the charm of Chinese painting, but also has the three-dimensional beauty of sculpture, forming a unique artistic style and rich Chinese characteristics. Wuhu iron painting represented by welcome pine in the Great Hall of the people is known as "the best of China". In the 1990s, there were 700 to 800 employees in Wuhu arts and crafts factory, and the iron paintings produced were sold well at home and abroad. However, by the end of 1990s, the development of Wuhu iron painting fell into a low ebb. With the continuous adjustment of China's economic structure, the market competition has gradually changed to quality and differentiation. Wuhu iron painting industry, which has the functions of two and three industries, has ushered in new opportunities for economic development and cultural heritage.

#### RESEARCH METHODS

#### 2.1 Research design

This study focuses on the following issues: 1) what background factors affect the citizens' purchase of Wuhu iron painting; 2) the citizens' approval of the measures taken to inherit and develop Wuhu iron painting; 3) the citizens' approval of the problems existing in

the process of inheritance and development of Wuhu iron painting; 4) what impact does Wuhu iron painting bring to Wuhu in the process of inheritance and development; 5) the citizens' approval of Wuhu iron painting in the future What are the suggestions for inheritance and development. In order to answer the above questions, the questionnaire survey was conducted in four districts of Wuhu City by sampling stratified three-stage unequal probability sampling.

#### 2.2 Research methods

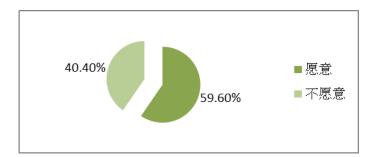
This study uses: 1) quantitative analysis method to analyze the quantitative characteristics, quantitative relations and quantitative changes of social phenomena. 2) Likert scale is one of the most commonly used rating summation scale. It is used to score by summation to judge his attitude or her different status on this scale. 3) The purpose of principal component analysis is to transform multiple indexes into a few comprehensive indexes by using the idea of dimension reduction. 4) The basic purpose of factor analysis is to use a few factors to describe the relationship between many indicators or factors.

# 2.3 Analyze the existing problems

# 2.3.1 An analysis of the proportion of people's willingness to buy iron painting products and the reasons for their purchase.

According to the content of the questionnaire, we get the proportion distribution of citizens' willingness to buy Iron paintings as follows:

Figure 1.distribution of purchase intention



According to the above figure, in the 478 valid questionnaires collected, 59.60% are willing to buy iron painting products, and 40.40% are unwilling to buy iron painting products.

In the sample data, the proportion distribution of the reasons why citizens are willing to buy Iron paintings is as follows:

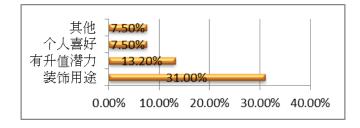


Figure 2.distribution of reasons for willing to buy

From the above figure, we can see that 31.00% of the people are willing to buy Iron paintings for decoration; 13.20% of the people think that it has the potential for appreciation; 15.00% of them are personal preferences and others.

In the statistical sample, the proportion distribution of the reasons why citizens are unwilling to buy Iron paintings is as follows:

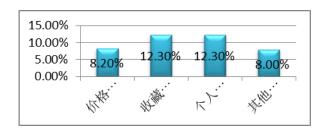


Figure 3. distribution of reasons for unwillingness to buy

From the above figure, we know that 8.20% of the people are reluctant to buy Iron paintings because of the high price; 12.30% of the people think that the collection value is low; 12.30% of the people don't like it, and 8.00% of the people are other reasons.

#### **Answer question 1**

According to the above table data, we can answer the question: which background factors are related to the public's purchase of Wuhu iron painting.

- 1. The main reason why people are willing to buy Wuhu iron paintings is for decoration.
- 2. Personal dislike and low value of collection factors to a certain extent affect the purchase of Wuhu iron painting.

# 2.3.2 Analysis on the approval degree of the citizens for the measures taken in the process of inheritance and development of Wuhu iron painting.

According to the sample data, the proportion distribution table of the public's approval on the way to adopt in the process of inheritance and development of Wuhu iron painting is as follows:

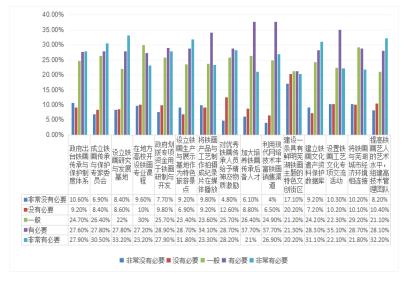


Figure 4. Approval distribution of measures for inheriting iron painting

Based on the above data, we use SPSS software to get the following table test:

**Table 1** KMO inspection table

KMO 和 Bartlett 的检验						
取样足够度的 Kaiser-Meyer-Olkin 度量。	.812					
Bartlett的球形度检验 近似卡方	11107.026					
df	105					
Sig.	.000					

KMO and Bartlett test show that 0.812 > 0.7, so it is suitable for principal component analysis.

Therefore, we make a principal component analysis of the public's approval on the measures taken by Wuhu iron painting in the process of inheritance and development, with default values: X1 = the government introduced the system of inheritance and protection of iron painting; X2 = establishment of Expert Committee on Inheritance and protection of iron painting; X3 = establishment of iron painting research and development base; X4 = offering professional courses of iron painting in local colleges and Universities; X5 = special funds allocated by the government for research and development of iron painting; X6 = set up ironpainting production and Exhibition base as characteristic tourist attraction; X7 = make iron painting products and crafts into documentary and broadcast in the media; X8 = give spiritual and material incentives to excellent iron painting inheritors; X9 = increase the cultivation of reserve talents for iron painting inheritance; X10 =enrich the sales channels of iron painting with modern network technology; X11 = build a cultural and creative block with distinctive Wuhu iron painting theme; X12 = establishment of data protection database of iron painting cultural heritage; X13 = set up special exchange activities of iron painting technology and culture; X14 = connect iron painting with the economic environment of Wuhu City; improve the artistic level of iron painting artists and form a high-tech management team. The following table is obtained:

**Table 2** Total variance analysis of interpretation

	解释的总方差										
成份		初始特征值		找	提取平方和载入			旋转平方和载入			
	合计	方差的 %	累积 %	合计	方差的%	累积 %	合计	方差的 %	累积 %		
1	7.390	49.264	49.264	7.390	49.264	49.264	3.799	25.327	25.327		
2	1.463	9.755	59.019	1.463	9.755	59.019	3.500	23.333	48.660		
3	1.133	7.550	66.569	1.133	7.550	66.569	2.262	15.082	63.742		
4	1.027	6.844	73.413	1.027	6.844	73.413	1.451	9.671	73.413		
5	.976	6.506	79.919								
6	.759	5.059	84.978								
7	.600	3.997	88.975								
8	.528	3.517	92.492								
9	.417	2.780	95.273								
10	.364	2.426	97.699								
11	.324	2.159	99.858								
12	.011	.070	99.928								
13	.005	.036	99.964								
14	.003	.021	99.985								
15	.002	.015	100.000								

提取方法:主成份分析。

It can be seen from the above table that there are four components whose eigenvalue is greater than 1, so four components are extracted, and their cumulative contribution rate is 73.413%, with a good contribution rate. The scree plot is as follows:

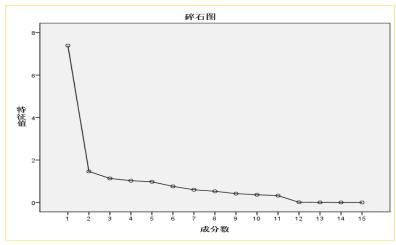


Figure 5.scree plot

According to the inflection point position of the scree plot, there are 4 components whose eigenvalue is greater than 1, so 4 components are extracted, and the conclusion is consistent with the total variance table of interpretation. According to the above data, we can get the following table through factor analysis:

Table 3 Rotation component matrix

旋转成份矩阵。								
	成份							
	1	2	3	4				
×1	.631							
×2	.660							
хЗ	.907							
×4			.909					
x5	.637							
x6				.655				
×7		.887						
×8		.635						
×9		.627						
×10		.563						
×11				.636				
x12				.662				
x13		.889						
×14			.908					
x15	.903							
提取方法 :主成份。 旋转法 :具有 Kaiser 标准化的正交旋转法。 a. 旋转在 5 次迭代后收敛。								

It can be seen from the above table that the load of the first component factor is from high to low: X3, X15, X2, X5, X1 It can be seen from this that the correlation between X3 and the first component is the largest and positive correlation, and then the correlation of

other factor loads on this component is weakened in turn. According to the second component factor load from high to low: X 13, X 7, X8, X9, X10, it can be seen that the correlation between x13 and the second component is the largest and positive, and then the correlation of other factor loads to the component is weakened in turn. According to the load of the third component factor from high to low: X4, X14, it can be seen that the correlation between X4 and the third component is the largest and positive, and then the correlation of other factor loads to the component is weakened in turn. According to the load of the fourth component factor from high to low: X12, X6, X11, it can be seen that the correlation between X12 and the fourth component is the largest and positive, and then the correlation of other factor loads to the component is weakened in turn.

# **Answer question2**

According to the above table data, we can answer the following questions: the public's approval of the measures taken to inherit and develop Wuhu iron painting:

- 1) In the first main component, the public has the highest approval for X3 (establishment of iron painting research and development base), followed by X15 (improvement of art level of iron painting artists, establishment of high-tech management team), X2 (establishment of iron painting inheritance and protection expert committee), X5 (government allocated special funds for iron painting research and development), X1 (government introduced iron painting inheritance and protection system).
- 2) In the second main component, the citizens have the highest approval for X13 (special exchange activities for iron painting technology and Culture), followed by X7 (making iron painting products and technology into documentary films for media broadcast), X8 (giving spiritual and material incentives to excellent iron painting inheritors), X9 (increasing the cultivation of reserve talents for iron painting inheritance), X10 (use modern network technology to enrich sales channels of iron painting).
- 3) In the third main component, the citizens have the highest approval for X4 (offering professional courses of iron painting in local universities), followed by X14 (connecting iron painting with urban economic environment of Wuhu).
- 4) In the fourth main component, the citizens have the highest approval for X12 (establishment of data base for protection of iron painting cultural heritage), followed by X6 (establishment of iron painting production and Exhibition base as a featured tourist attraction), X11 (construction of a featured cultural and creative block with distinct Wuhu iron painting theme).
- 2.3.3 Analysis of the public's recognition of the problems faced by Wuhu iron painting in the process of inheritance and development.

Based on the sample data, the proportion distribution of the public's recognition of the problems existing in the inheritance and development of Wuhu iron painting is as follows:

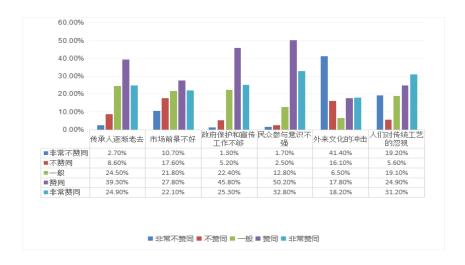


Figure 6.distribution of problem recognition in iron painting inheritance

Based on the above data, we get the Likert scale as follows:

**Table 4** Likert scale of measures taken to inherit iron painting

72.	м
5.5	ш

	市场前景不好	铁画传承人逐 渐老去	政府保护和宣 传丁作不够	民众参与意识 不强	外来文化的冲 击	人们对传统工 艺的忽视
N 有效	478	478	478	478	478	478
缺失	2	2	2	2	2	2
均值	3.3326	3.7510	3.8828	4.1004	2.5523	3.4289
均值的标准误	.05902	.04623	.04122	.03823	.07297	.06712
中值	3.0000	4.0000	4.0000	4.0000	2.0000	4.0000
标准差	1.29027	1.01082	.90124	.83576	1.59546	1.46738
方差	1.665	1.022	.812	.698	2.545	2.153
极小值	1.00	1.00	.00	1.00	.00	.00
极大值	5.00	5.00	5.00	5.00	5.00	5.00

According to the Likert scale, the average value of the problem of "people's participation awareness is not strong" is the largest, reaching 4.1004, indicating that the problem has the largest degree of aggregation; At the same time, the standard deviation and variance are the least, which are 0.83576 and 0.698, respectively, indicating that the problem is the least discrete, It can be seen that the citizens have the highest recognition on the issue of "weak awareness of people's participation"; On the contrary, the average value of the problem of "impact of foreign culture" is the smallest, which is 2.5523, indicating that the aggregation degree of the problem is the smallest; At the same time, the standard deviation and variance are the largest, which are 1.59546 and 2.545 respectively, indicating that the problem is the most discrete; It can be seen that citizens have the lowest recognition of the issue of "impact of foreign culture".

1. Analysis of the influence on Wuhu in the process of inheriting and developing Wuhu iron painting.

According to the sample data, the proportion distribution of the impact on Wuhu in the process of inheriting and developing Wuhu iron painting is as follows:



Figure 7. distribution of influence of iron painting inheritance on Wuhu

It can be seen from the above figure that the biggest impact on Wuhu in the process of inheriting and developing Wuhu iron painting is to inherit its own history and culture, and then to enhance its own cultural influence.

# **Answer question3**

Based on the above analysis, we can answer the following questions: the public's recognition of Wuhu iron painting in the process of inheritance and development:

- 1. In the process of inheritance and development of Wuhu iron painting, the highest level of public recognition is "weak sense of public participation"; on the contrary, the lowest level of public recognition is "impact of foreign culture".
- 2. In the process of inheriting and developing Wuhu iron painting, the biggest impact on Wuhu is to inherit its own history and culture, and then to enhance its cultural influence.

#### CONCLUSION AND SUGGESTIONS

#### 3.1 Conclusion

- 1. The main reason why people are willing to buy Wuhu iron painting is that they are interested in its decorative use.
- 2. Personal dislike and low value of collection factors to a certain extent affect the purchase of Wuhu iron painting.
- 3. In the process of Wuhu iron painting inheritance and development, the highest level of public recognition is "people's awareness of participation is not strong", followed by "government protection and publicity work is not enough" and "iron painting inheritors are getting old"; on the contrary, the lowest level of public recognition is "impact of foreign culture".
- 4. In the process of inheriting and developing Wuhu iron painting, the biggest impact on Wuhu is to inherit its own history and culture, and then to enhance its cultural influence.
- 5. In the process of inheriting and developing Wuhu iron painting, Wuhu citizens have the highest approval for the four measures of setting up research and development base of iron painting, setting up special exchange activities of iron painting technology and culture, setting up professional courses of iron painting in local colleges and universities, and setting up data base for protection of iron painting cultural heritage.

# 3.2 Suggestions for solving problems

1. Train the inheritors of iron painting systematically

In the era of iron painting in the future, the inheritors of iron painting will be compound talents. Governments at all levels should continue to increase investment in the protection of iron painting art, establish a scientific and effective inheritance mechanism, make full use of the advantages of talents and scientific research of scientific research

institutes and colleges, and vigorously cultivate specialized talents, so as to lay a solid foundation for the inheritance and development of iron painting.

2. The government increases publicity

Give full play to the role of libraries, cultural centers, museums, science and technology museums and other public cultural institutions at all levels, set up iron painting art museums or exhibition centers, popularize protection knowledge and cultivate protection awareness.

- 3. Hold relevant iron painting cultural activities to improve the participation of citizens Iron painting can be combined with local folk culture, regain people's cultural memory of iron painting, and make iron painting gain new cultural space in folk life.
  - 4. Push Wuhu iron painting to market

The association of iron painting industry should actively explore the new way of development of the close combination of iron painting and market, formulate measures to track the production and operation of the whole industry, make efforts in the integrated marketing planning, explore the method of making Wuhu iron painting industry market bigger and stronger, promote the market circulation of Wuhu iron painting as a spiritual cultural product, and promote the development of Wuhu cultural industry and tourism handicraft market.

Therefore, this article through the investigation and research of the public to know their knowledge of Wuhu iron painting art as national intangible cultural heritage and how to improve the situation of Wuhu iron painting art for developing well. Finally, summary the results of questionnaire and providing valuable references and suggestions for the inheritance and development of Wuhu iron painting art.

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# INNOVATIVE MANAGEMENT OF FINANCIAL DATA IN COLLEGES AND UNIVERSITIES WITH DIGITAL TRANSFORMATION

#### **Zhaoxin Luan**

Suan Sunandha Rajabhat University

#### **ABSTRACT**

The internal financial data management model of colleges and universities faces huge challenges. The establishment of a digital campus is an inevitable trend in the financial development of modern universities. Many universities are also aware of the importance of financial management. Financial data management in colleges and universities is facing unprecedented challenges. Financial management is one of the important contents of normal operation and the professional development of universities. Among the various resources of the digital campus, financial data information is the most important.

**Keywords:** Digital transformation, Financial management of Colleges and Universities, Informationization of financial data management.

# 1. Background Information

Nowadays, China is striving to promote the construction of information technology, and the financial information of Colleges and Universities is also in the process of hot development. The former financial data management mode of Colleges and Universities is facing a huge challenge. The inevitable trend of modern college finance is to build a digital campus. Since 1995, the informatization of higher education has been launched in an all-round way. Its symbol is the implementation of "211 Project". So far, the goal put forward by the education department is to continue to move towards the development and construction of digital campus. This goal has covered about 30% of Chinese universities, and this number will continue to increase. The construction of "Digital Campus" is a hard and long-term work, and also an important part of the information construction of Colleges and Universities. The information construction of Colleges and Universities, but also an important standard of the status of Colleges and Universities in today's society. Therefore, each college and universities urgently needs to use modern information technology to realize the construction of "Digital Schools Garden".

With the arrival of the new era and new stage, the development of Colleges and Universities has accelerated. On the one hand, many Colleges and Universities seize the opportunity to achieve leapfrog development, greatly improve the school conditions, and the enrollment scale is also growing, which has made great contributions to the transformation of college education. On the other hand, due to the expansion of the scale of running a school and the continuous transformation of the mode of running a school, the single mode of education centered around "Teaching and Scientific Research" in the past has been transformed into a mode of simultaneous development of activities such as teaching, scientific research, technological development, consulting services and production and operation. The financial activities of Colleges and Universities are gradually diversified. Many Colleges and Universities are aware of the importance of carrying out financial management at the same time. University financial data management is facing

unprecedented test. One of the key contents of normal operation and career development of Colleges and Universities is financial management. Among all the resources of digital campus, the information of financial data is the most important. Therefore, in the rapid development of Colleges and Universities in the era of digital transformation, we must pay attention to the system construction of financial information, and take the financial data management information of Colleges and Universities as an essential task for the overall development of digital campus.

# a. Research Questions

- ✓ What are the theories related to financial management in Colleges and Universities?
- ✓ What is the development course of financial management information construction in China?
- ✓ What is the necessity and importance of information construction of university financial data management?
- ✓ What is the financial management status of a university in China? What are the problems?
- ✓ How can Colleges and Universities innovate the management of financial data with digital transformation?

This paper mainly uses the following research approaches in the research of innovative management of financial data in Colleges and Universities with digital transformation:

#### LITERATURE REVIEW

Through CNKI and other media, the books of financial management in the library can acquire the relevant knowledge about financial management, financial information and financial data information in Colleges and Universities, so as to better understand the connotation, characteristics, content and process of financial management, and more indepth analysis of the development process, problems and Countermeasures of China's information technology.

# The method of case analysis

Through the case of financial management informatization of a university in China, this paper comprehensively analyzes the representative problems in the process of financial management informatization construction of Colleges and Universities in China, and puts forward the innovation strategy of financial data management informatization of Colleges and Universities.

#### **Literature Review:**

The establishment and perfection of the digital campus environment have a farreaching impact on the establishment of information management of financial data in Colleges and Universities. All formulating the information system of financial management in Colleges and Universities from the actual situation can not only promote the reform of financial management system in Colleges and Universities but also improve the rationality of financial business processes and standardize financial work. Speed up the efficiency of funds withdrawal in circulating Colleges and Universities, strive to improve the quality of financial work, minimize financial decision-making errors in Colleges and Universities, and strive to improve the efficiency of financial workers, to improve the quality of universities and the speed of construction and development. Under the overall objective, financial management is mainly the management of capital accommodation, asset acquisition and capital operation, as well as the management of financial profit distribution. Financial management is included in organization management, and it is also an important component of organization management. The financial management of Colleges and Universities is a basic economic management work that follows the relevant financial rules and regulations of the State and the principles of financial management, and then handles financial management and organizes financial activities.

According to the "Financial System of Colleges and Universities" promulgated by the relevant departments of the State, the important contents of financial management of such schools are as follows: First, to vigorously supervise various economic activities in Colleges and Universities; Second, to optimize the allocation of financial resources in Colleges and Universities; Third, to compile and carry out follow-up supervision in conjunction with their own conditions; Fourth, to abide by relevant principles and then raise funds for undertakings; Fifth, to reduce the loss of state-owned assets and improve the ability to manage them, sixth, to establish and improve various economic systems related to finance, to strengthen the standardization of economic environment, and seventh, to truly reflect the income and expenditure of various undertakings of the school, and so on.

The informationization of financial data management refers to the combination of modern management means and advanced information technology, taking the accounting information system as a favorable basic condition, and vigorously implementing the computerized accounting of various financial undertakings in Colleges and Universities. With the implementation of financial networking, to a certain extent, it promotes the digitization of University management, and ultimately realizes the informationization of financial data management. With the continuous development of modern information technology and driven by economic globalization, the mode of information management of financial data in Colleges and Universities has become the most important to improve their management level and strengthen their competitiveness.

In 2014, the Ministry of Finance issued "The Guiding Opinions on Comprehensively Promoting The Construction of Management Accounting System", which proposed to promote the informatization of management accounting system. In this context, some Colleges and Universities give full play to their advantages as talent training and technological innovation base, actively explore the financial management information, scientific management of financial data resources.

A university in China has always been brave in innovation. In 2003, it became the first university in the province to use "Alipay" to pay tuition fees. The payment of tens of thousands of students every year is a difficult problem. At the beginning of each semester, all financial business workers of the university's financial department and related units have to work continuously for a period of time to handle the relevant work procedures of charging. Each time, a large number of students in the financial department are waiting in line to handle the procedures, which is both time-consuming and laborious.

In order to improve the financial efficiency of the university, the financial department of the university takes modern information technology as an important means to solve many financial problems and improve the efficiency of financial data management. The financial department organized the staff of the whole department to have a full discussion and determined the reform direction of creating "cloud finance" and financial management informatization. After years of hard construction, the school's financial department has constantly improved the system of financial management and optimized the reconstruction of financial process. It not only strives to improve the hardware equipment of information construction, but also greatly improves the application level of software, and then effectively implements various security measures of financial information, and finally forms a "cloud finance" integrated management platform.

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# MARKETING MIX FACTOORS AFFECTING THE DECISION TO BUY SMARTPHONES OF UNDERGRADUATE VERSUS POSTGRADUATE STRDENTS IN BANGKOK, THAILAND

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#### **ABSTRACT**

The purposes of this research are 1) to compare the marketing mix factors affecting the decision to buy smartphones of undergraduate versus postgraduate students in Bangkok, Thailand and 2) to propose strategic guidelines for mobile-phone manufacturers and retailers in Bangkok, Thailand to increase their sales volume. The concepts of the marketing mix (4Ps) and the related marketing research were reviewed. The sample is 400 respondents, comprising 200 undergraduate students and 200 post graduate students who are studying in diverse universities. The questionnaire was research instrument used to collect the data. The mean, standard deviation, T-test, regression were used to analyze the data.

The results found that the undergraduate students paid the attention to 1) promotion factors, 2) price factors, 3) place factors, and 4) product factors in turn. While, the postgraduate students paid the attention to 1) product factors in turn. While, the postgraduate students paid the attention to 1) product factors, 2) promotion factors, 3) price factors, and 4) place factors in turn. Moreover, the study found that marketing mix factors (4Ps) impact the decision to buy smartphone of undergraduate and postgraduate students in Bangkok at a statistically significant level of .000. The study suggests that the entrepreneurs should make the products which classified into diverse models to suitable with specific customers, such as offering the reasonable-price models with attractive promotions for selling undergraduate students, while offering the quality-based models for selling postgraduate students. For further research, the studies on actual usage of Facebook as part of marketing mix strategies.

**Keywords**: Marketing Mix, Buying Decision, Smartphones

#### INTRODUCTION

Humans are social animals living together is part of a group. It is necessary to have communication, a vital factor in coexistence and activities within the group. Thus making human society always creative ways to communicate in different ways to achieve the objectives that need to be occur via evolution communication. So when communications technology continues to develop, constantly making mobile phone Smartphone device must be updated and developed to accommodate new sarcoma media technology constantly to meet the needs of the consumer behaviors change over time (Adekunle et al., 2018).

A smartphone is a mobile phone with highly advanced features. A typical smartphone has a high-resolution touch screen display, Wifi connectivity, Web browsing capabilities, and the ability to accept sophisticated applications. The majority of these devices run on any of these popular mobile operating systems: Android, Symbian, IOS, BlackBerry OS and Windows Mobile. At present, the smartphone has been developed. More modern such as

having a two-lane camera, waterproof, front camera can open flash and camera is very clear and some is expensive. For example of smartphone is very popular in Thailand of nowadays is I-phone because it have a beautiful and strong of package so this smartphone brand can make the marketing growth (Pinto et al., 2019). This research is designed to introduce manufacturer to design a smartphone meet the needs of students because students tend to have different needs. So this research to make benefit for smartphone entrepreneurs and manufacturers. This study, therefore, aims to explore and sorts factors that affect the selection of smartphones of undergraduate versus postgraduate students in Bangkok, Thailand.

#### LITERATURE REVIEW

#### 2.1 Smartphones

Smartphones are a part of daily life. They help us to stay connected. They entertain and inform. According to a study by Ha and Zhang (2018) the most popular types of smartphones are the iPhone and Android. iPhone: Apple's iPhone is one of the bestselling smartphones in Thailand. It runs Apple's iOS (operating system) with features such as Safari, Face Time, and Siri, a personal digital assistant. Siri can remind you of appointments, and just by speaking a song title into the phone, you can play music hands-free. Additionally, you'll find free and paid apps on Apple's App Store. While, Android: From Google, the Android OS powers many types of smartphones on the market. An Android phone works with Google products such as Gmail, Google Drive, and Google search. Android phones can be used without having a Gmail account, but they work best with it.

#### 2.2 Decision Making Process

Decision making is the process of making choices by identifying a decision, gathering information, and assessing alternative resolutions. Using a step-by-step decision-making process can help you make more deliberate, thoughtful decisions by organizing relevant information and defining alternatives. This approach increases the chances that you will choose the most satisfying alternative possible (Choudhury et al., 2019).

Glenn Walters (1978), besides, indicates that social and economic customer behaviors are linked, as depicted in S - R Theory (Stimulus – Response Model). The model begins with input factors or external influences such as marketing stimuli and environmental stimuli which lead to buyer decision making, resulting in output factors or buyer response, as shown in Figure 1.

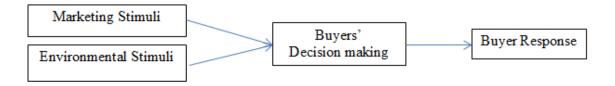


Fig. 1 Customer Decision Making Process

## 2.3 Marketing Mix (4Ps)

Kotler (2012) defined the marketing mix as one of the most famous marketing terms. The marketing mix is the tactical or operational part of a marketing plan. The marketing mix is also called the 4Ps and the 7Ps. The 4Ps are price, place, product and promotion. The services marketing mix is also called the 7Ps and includes the addition of process, people and

physical evidence. The marketing mix is .he set of controllable tactical marketing tools – product, price, place, and promotion – that the firm blends to produce the response it wants in the target market.

Price - the amount the consumer must exchange to receive the offering. The company's goal in terms of price is really to reduce costs through improving manufacturing and efficiency, and most importantly the marketer needs to increase the perceived value of the benefits of its products and services to the buyer or consumer. There are many ways to price a product. Let's have a look at some of them and try to understand the best policy/strategy in various situations.

Place - company activities that make the product available to target consumers. Place is also known as channel, distribution, or intermediary. It is the mechanism through which goods and/or services are moved from the manufacturer/ service provider to the user or consumer.

Product – the goods-and-services combination the company offers to the target market. For many a product is simply the tangible, physical item that we buy or sell. You can also think of the product as intangible i.e. a service. In order to actively explore the nature of a product further, let's consider it as three different products – the CORE product, the ACTUAL product, and finally the AUGMENTED product. The Product Life Cycle (PLC) is based upon the biological life cycle. For example, a seed is planted (introduction); it begins to sprout (growth); it shoots out leaves and puts down roots as it becomes an adult (maturity); after a long period as an adult the plant begins to shrink and die out (decline). The Customer Life Cycle (CLC) has obvious similarities with the Product Life Cycle (PLC). However, CLC focuses upon the creation and delivery of lifetime value to the customer i.e. looks at the products or services that customers need throughout their lives.

Promotion - all of the activities marketers undertake to inform consumers about their products and to encourage potential customers to buy these products. Promotion includes all of the tools available to the marketer for marketing communication. As with marketing mix, marketing communications has its own promotions mix. Whilst there is no absolute agreement on the specific content of a marketing communications mix, there are many promotions elements that are often included such as sales, advertising, sales promotion, public relations, direct marketing, online communications and personal selling.

## 2.4 Hypothesis Development

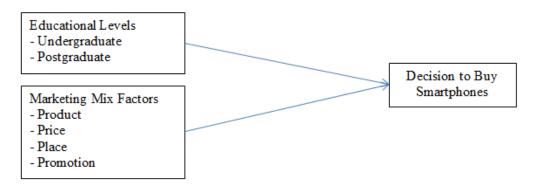
Watthanamano (2013) studying factors affecting the decision to buy tablet PC of the people in Bangkok found that the samples with different educational levels provide importance to the overall marketing mix indifferently but different in detail by those with a lower than bachelor and bachelor degree will give importance to the quality of use of products and taking into account the price factors more than those with a higher education than a bachelor's degree. As for the factors of distribution, people graduated the bachelor degree and higher than bachelor degree give importance to distribution factors, unlike people graduated below bachelor degree. In addition, consumers with different educational levels all give to the importance of marketing promotion indifferently. Especially in the after-sales service which is consistent with the research of Amphawanwong (2012) found that consumers with different educational levels influenced their decisions to buy mobile phones, Android operating system, the overall picture is no different. Except for Marketing promotion has different influences.

In addition, Leelalertsophon (2014) also found that education levels Different influences on the decision to buy a smartphone differently in terms of price factors. The bachelor's degree will be taking into consideration the higher price factor Graduates of low level Higher and higher Bachelor's degree because of the reason that Individuals with a

bachelor's degree will know the value of money at Higher. Moreover, as reviewed by Aunyawong et al. (2020), the quality product with reasonable price and right place can lead to marketing performance and customer satisfaction. As a result, there are 2 hypotheses in this study, as shown in Figure 1.

H1: Personal factor - levels of education differently impact the decision to buy smartphone of students in Bangkok, Thailand.

H2: Marketing mix factors (4Ps) impact the decision to buy smartphone of students in Bangkok, Thailand.



**Fig. 2.** Research Framework

#### RESEARCH METHODOLOGY

#### 3.1 Samples and data collection

The researchers used the sample size calculated from Partial R2 of Cohen, (1977) to ensure the sufficient sample (Cohen, 1977). As a result, 400 samples, divided into 200 undergraduate students and 200 postgraduate students, were asked to answer the questionnaire. In this study, the sample selection is based on non–probability sampling by using convenience sampling as consumers, who used to buy smartphones, in Bangkok during May 2020.

Table 1	l Demo	oranhic	Inform	ation	of Res	pondents
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Demographic Characteristics	No. of Respondents	Percentage
Gender		
Male	222	55.50
Female	178	45.50
Total	400	100.00
Marital Status		
Single	345	86.25
Married	52	13.00
Divorce	3	0.75

#### 3.2 Measurement

Product Factors was comprised of 5 items. The sample items involve "Smartphone is very strong", "Easy to use", "Beautiful design", "Good Quality" and "Easy to carry." Price Factors was comprised of 4 items. The sample items involve "Price is reasonable with the size of the smartphone", "Price is reasonable with product", "Price is reasonable with

application" and "Price is reasonable with service". Place Factors was comprised of 4 items. The sample items involve "Smartphone near the department store", "Convenient transportation", "The distance between the accommodation and the university is not too far" and "The store is reliable". Promotion Factors was comprised of 3 items. The sample items involve "There is widespread advertising", "Rent discount" and "Flexibility to pay rent". All items were scored on five-point rating scale, ranging as follows: 1 (least agrees), 2 (few agree), 3 (agree), 4 (very agree) and 5 (most agree).

Index of Item Objective Congruence (IOC) was used to inspect the content validity of questions, including clearness, coverage, and language accuracy. Some questions, however, were unclear so that the experts gave recommendations in adjusting those questions to be consistent with the context of students who used to buy smartphones.

## 3.3 Data Analysis

Descriptive analysis of the empirical data was carried out employing by Pearson Chi-Square Test. It aims to determine if there is a significant relationship between two variables to prevent the problem of multicollinearity. Besides, T-Test was used to test Hypothesis 1 and regression analysis was used to test hypothesis 2.

#### **RESULTS AND FINDINGS**

According to hypothesis 1, personal factor - levels of education differently impact the decision to buy smartphone of students in Bangkok, the results found that significant level of 0.10. So, Hypothesis 1 can be supported. It concluded that. The undergraduate students paid the attention to 1) promotion factors, 2) price factors, 3) place factors, and 4) product factors, in turn, while the postgraduate students paid the attention to 1) product factors, 2) promotion factors, 3) price factors, and 4) place factors, in turn, as shown in Table 2.

**Table 2** Demographic Information of Respondents

Model	N	Mean	Std. Deviation	Sig
Undergraduate students	200	4.21	1.128	0.10
Post graduate students	200	3.83	1.224	
Total	400			

According to hypothesis 2, marketing mix factors (4Ps) impact the decision to buy smartphone of students in Bangkok, the results found that marketing mix factors (4Ps) impact the decision to buy smartphone of undergraduate and postgraduate students in Bangkok at a statistically significant level of .000, as shown in Table 3 and Figure 3.

**Table 3** Regression Analysis Result of Marketing Mix Factors Affecting the Decision to Buy Smartphones

Model	<b>Unstandardized Coefficients</b>		Standardized Coefficient	t	Sig
	В	Std. Error	Beta	_	
1 Constant	3.903	0.45			.000
Marketing	0.524	0.45	.480	9.292	.000
Mix Factors					

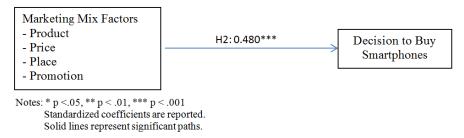


Fig. 3 Regression Result

#### CONCLUSION AND DISCUSSION

The results were consistent with the study of Solimun and Fernandes (2018), which found that marketing mix factors affected customer loyalty to buy products since it creates customer satisfaction Aunyawong et al., (2020). However, the postgraduate students tended to concern less about price because they focused more on quality of products. This might cause from the salary they obtained when they graduated and then had a work. As a result, hypothesis 1 - Personal factor such as levels of education differently impact the decision to buy smartphone of students in Bangkok, Thailand and hypothesis 2 - Marketing mix factors (4Ps) impact the decision to buy smartphone of students in Bangkok, Thailand was supported.

For practical recommendations, first, the entrepreneurs should make the products which classified into diverse models to suitable with specific customers, such as offering the reasonable-price models with attractive promotions for selling undergraduate students, while offering the quality-based models for selling postgraduate students. For further research, the studies on actual usage of Facebook as part of marketing mix strategies are still up-to-date and need for generalization (Pantano et al. 2019), especially the studies on the context of Thailand. Moreover, the studies on trustfulness between smartphone manufacturers and customers should be studied as trustfulness could be the significant factor in the business management context in Thailand (Aunyawong et al. 2018).

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## CONSTURCTION OF ORGANIZATION CULTURE

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#### **ABSTRACT**

In today's organizational competition, the cultural soft power of an organization occupies an important position, and organizational cultural construction is one of its manifestations.

**Keywords**: Norganization culture, national traditional culture, Guide function, Constraint function,

#### **INTRODUCTION**

## 1.1 Background:

Organization culture is an organization's unique cultural image composed of its values, beliefs, rituals, symbols, and ways of doing things. It's very important for the organization to build its own architecture, the culture of organization is the core of its value. The core of organizational culture is values. The establishment of organizational culture should guided by values conducive to knowledge sharing, values are integrated into the values of the organization and its employees. The type of organization culture divided into learning organization culture, club culture, Innovative organizational culture and Conservative organizational culture. Different type is suit of different organization. It's affected by founder of the organization, enterprise's own development, corporate employees and corporate communication of culture.

#### **1.2 Problem statement:**

Question1: How to build organization culture.

Question2: Why need to build organization culture.

How to build organization culture is the first thing we should to think about. It's the basis of next questions, you should have a method to build it, the so-called organizational culture construction refers to the process by which an organization consciously promotes its positive and excellent culture and overcomes its negative and inferior cultural processes, even if the organizational culture is continuously optimized.

Principles of Organizational Culture Construction

- (1). Based on national traditional culture, pay attention to absorbing advanced foreign culture.
  - (2). The principle of combining full staff and expert participation.
  - (3). The principle of combining universality with particularity.
  - (4). The principle of combining form and content.

The direction of organizational culture construction

- (1). Building the soul of organizational culture
- (2). Determine organizational culture orientation
- (3). Three modules of organizational culture

Organizational culture is both a driving force for organizational development and a

management tool. Cultural management is the highest level of management. Building an excellent organizational culture must meet four criteria: personality-based, strategy-based, fundamental business principles, and humanity-based. In these four standards, respect for human nature is the core and foundation of all good organizational cultures.

Why need to build organization culture is the second thing we should to know. Also called the importance of organization culture. The question conclude two aspect :

The importance of organizational culture to employees.

The importance of organizational culture to the organization.

To understand the importance of organization is helpful for the company to management employees. And to form its special business philosophy.

## 1.3 Research objective

How to build organization culture

Steps in Organizational Culture Construction

1.3.1 Develop the core content of the organizational culture system

Corporate values and spirit are the core content of organizational culture. First of all, the establishment of the corporate value system should be based on the company's own nature, scale, technical characteristics, personnel composition and other factors. Second, good values should be considered from the perspective of the overall interests of the company, and better integrate the behavior of all employees. Third, the values of an enterprise should consolidate the ideals and beliefs of all employees, reflect the direction and goals of corporate development, and become a spiritual force to encourage employees to work hard. Fourth, the company's values should include a strong sense of social responsibility, so that the public can have a good impression of the company.

1.3.2 Construction of the organizational culture surface

Mainly refers to the construction of the material and institutional layers of organizational culture. The construction of the surface layer of the organizational culture is mainly based on the hardware facilities and environmental factors of the enterprise, including the formulation of corresponding rules and regulations, codes of conduct, design of company flags, badges, songs, construction of certain hardware facilities, etc. Provide material assurance.

- 1.3.3 Implementation and penetration of core concepts of organizational culture.
- (1). Staff selection and education
- (2). Role models of heroes
- (3). Arrangement and design of etiquette and rituals
- (4). Design and spread of the organization's propaganda slogan

Why need to build organization culture.

Guide function

Organizational culture can guide the value and behavioral orientation of the organization and its members. It is manifested in two aspects: One is to guide the thoughts and behaviors of individual members of the organization; the second is to guide the overall value orientation and management of the organization. This is because once an organization's organizational culture is formed, it establishes its own system of values and norms. If the orientation of values and behaviors of members of the organization and the system standards of organizational culture produce a contradiction, the organizational culture will correct and It leads to the values and norms of the organization.

Constraint function

Organizational culture has a restrictive and normative effect on the thinking, psychology, and behavior of employees. The constraint of organizational culture is not an institutional hard constraint, but a soft one. This constraint arises from the organizational

cultural atmosphere, group behavior rules, and ethics. Group consciousness, social public opinion, common customs and fashion, and other spiritual and cultural content, will cause a strong group psychological pressure and motivation to individualize the behavior of the group members will have psychological resonance and then achieve self-control of behavior.

Cohesive function

The cohesive function of organizational culture means that when a value is jointly recognized by the employees of the organization, it will become a kind of cohesion, bringing its members together from all aspects, resulting in a great centripetal force and cohesion.

#### 1.4 Result

The Construction of organization culture is a very important thing of a company, it has great significance of build corporate culture, the company should have its own culture. And use the culture to create Corporation value.

#### LITERATURE REVIEW

## 2.1 Theory

2.1.1 Current status of corporate culture in China

We are now in an era of great change. The tide of globalization is sweeping from the west to the east and from the modernized central area to the remote areas and values. (Gao Dong 2015) Chinese traditional corporate organizational culture attaches too much importance to material capital and neglects intellectual capital. Official-centered thinking is serious and requires subordinates to obey absolutely, including the presence of nepotism, Recognizing people as pro. Traditional corporate organizational culture hinders the process of corporate knowledge management. Entrepreneurs do not pay enough attention. Many companies lack organizational culture planning. In terms of knowledge sharing, corporate managers must maintain their authority, so it is difficult to communicate with employees on an equal basis. Many enterprises have their own confidentiality mechanisms. Some unnecessary confidentiality systems have hindered knowledge sharing. Many companies have some so-called confidentiality mechanisms, and these confidentiality mechanisms have limited knowledge sharing to a certain extent.

2.1.2 Impact of organizational culture on company employees

An organization's organizational culture has a profound impact on its employees, including their behavior and thinking. Organizational culture is the soft strength of an enterprise in market competition. Only with a good organizational culture can an enterprise have stronger competitiveness. A positive organizational culture has a profound and long-term impact on employees, and it will make employees have upward work. Attitude and positive work style. Organizational culture is divided into surface, middle, and core layers. The surface layer includes some visible facts, such as slogans, etiquette specifications, visible physical environment, etc.; the middle layer includes values, principles, organizations, and beliefs that organizations or groups commonly believe in; the core layer is the basic assumptions and concepts of people's explicit behavior. (Gong 2015)

## 2.2 Explanation of all variables

2.2.1 Organization development direction

The direction of organizational development is an objective of organizational development. Organizational development refers to the widespread application of behavioral science knowledge to the development, improvement, and strengthening of strategies, structures, and processes that promote organizational effectiveness in accordance with plans.

This definition highlights several characteristics that make organizational development different from other measures that promote organizational change and improvement. The direction of organizational development is based on the guiding goals of organizational development.

## 2.2.2 Core competence

Core competitiveness refers to the resources that can bring comparative competitive advantages to enterprises, as well as the allocation and integration of resources. With the change of enterprise resources and the improvement of allocation and integration efficiency, the core competitiveness of enterprises will also change accordingly. With the power generated by core competitiveness, an enterprise may stand out in the fierce market competition, so that the value of products and services can be enhanced within a certain period of time. Core competitiveness is the ability of an enterprise (talent, country, or individual participating in competition) to obtain a competitive advantage over the long term. It is a technology or capability unique to an enterprise that can stand the test of time, is malleable, and is difficult for competitors to imitate.

## 2.3 Relationship between variables in the light of past literature

## 2.3.1 Organizational culture construction and organizational development direction

Organizational development direction is the foundation of organizational culture construction, and organizational culture construction affects organizational development direction. Organizational culture construction is guided by the direction of organizational development. Different organizational development directions determine the differences in organizational cultural content, and different content determines the different construction methods. Taking the construction of university organizational culture as an example, university organizational culture refers to the culture in a specific university organizational context. At its core, the university's unique values. Core values represent the most basic beliefs of a university. They fundamentally determine the working methods and code of conduct of university teachers and students. It is precisely because each university believes in different values that each university has its own personality . (Xu 2010) According to the types of colleges and universities, the strategic goals of domestic universities generally include research universities, research and teaching universities, teaching and research universities, and teaching universities.

## 2.3.2 Organizational Culture Construction and Organizational Core Competitiveness

The construction of organizational culture is one of the influencing factors of the core competitiveness of an organization. The organizational culture is the soft strength of an organization. A good cultural atmosphere is the basis for harmonious harmony within an organization. The core competitiveness of an organization is an element of an organization's market-based position. Taking the hospital's cultural construction and core competitiveness as an example, hospital culture belongs to the ideological category. Yuan is a reflection of the overall level of the hospital to a certain extent. It has certain personality characteristics and can have varying degrees of influence on various hospital work. The hospital's core competitiveness is a comprehensive ability that integrates human resources, social resources, technical resources, scientific research resources and cultural resources of the hospital. Not only is it difficult for other competitors to imitate and copy, but it cannot be exchanged or possessed. (Zhu Zhang Li Tan 2019)

#### 2.4 Theoretical framework

2.4.1 Connotation of core values of the organization

Core values are the most important and eternal credo of an organization. They are values that are difficult to change over time. For a long time, it has mainly emphasized that it has inherent value and meaning for members within the organization. The core values are the core criteria for the organization to measure issues such as "good and bad, right and wrong, appreciation or opposition". For an enterprise, the key to long-term and sustainable success is whether the company consistently guides all work with core values. (Liu Qiu Zeng 2019)

2.4.2 Evaluation indicators of the organization's core values

Although the evaluation of core values is a kind of soft assessment, the written indicators are hard rules, which affect the scientificity of the indicator system. Other scholars have done research based on the application of value evaluation in the public domain, such as studying the application of performance appraisal of values in the public sector, and using behavioral observation scale methods to evaluate employees' behaviors and characteristics.

#### RESEARCH METHODOLOGY

Research method: This topic is suitable for quantitative research methods, so the questionnaire survey method is used for research and analysis, and the data is analyzed in depth to analyze the topic. Then draw relevant conclusions and give different suggestions for the construction of organizational culture of different companies.

Research object: The culture of different enterprise organizations, through the investigation and interview of enterprise employees to obtain relevant data and analyze it. This article selects two organizations for research, one is KFC and the other is McDonald's. The organizational cultures of the two companies that belong to the fast food industry are not the same, so they form a completely different business style and marketing model.

Instruments and data collection: To collect data, a survey method was used and printed questionnaires were distributed in the two companies. In order to measure the impact of different organizational cultures on two different companies in the same industry, this article selected 5 survey items from KFC and 5 survey items from McDonald's during the survey. These 5 items are for different aspects of organizational culture construction. , So as to analyze and study the corporate organizational culture from multiple angles. For the five survey items, employees from different classes were selected from the two companies to distribute questionnaires to prove the diversity of survey samples, as well as different methods of organizational culture construction in different classes, and the impact of organizational culture on employees of different classes. Under the background of the same industry, two different organizational cultures have different methods.

Population and sampling: In this paper, the stratified sampling method was adopted. A total of 100 questionnaires were distributed during the survey. For the grassroots, middle-level, middle-high-level and high-level four levels, each level distributed 25 copies and 100 copies were recovered. All 100 questionnaires are valid questionnaires. The analysis in the following articles is based on the data in these questionnaires. Through sampling analysis of employees at different levels, they get their views and suggestions on the organizational culture, so as to provide better suggestions and help for the company's organizational culture construction.

Research settings: The research environment is non-artificial, using on-site research methods and collecting data in the natural environment

Data analysis: This article analyzes the organizational culture through descriptive statistics, analyzes the data's concentration trend and degree of dispersion, and analyzes the data change trend through some basic statistical graphics, thus comprehensively analyzing the data in the questionnaire. Conduct in-depth research on organizational culture construction.

#### **RESULTS AND FINDINGS**

## 4.1 Organizational culture is the core soft power of the company's market competition.

In the survey, 20 of KFC's 25 senior employees believe that organizational culture plays a vital role in the company's market competitiveness and is the core soft power of the company's market competition, accounting for 80% of all respondents. It can be seen that organizational culture occupies an important position in the company's market competition, is an important part of the company's soft power, and is also one of the main basis for senior management to manage the company. 18 of McDonald's 25 senior employees believe that organizational culture is crucial to the company's market competitiveness, accounting for 72%, which is relatively low compared to KFC. The influence of KFC's market competitiveness is higher than McDonald's.

	total people	Percentage	frequency
KFC	25	20	80%
McDonald's	25	18	72%

## 4.2 The company's development direction affects the organization's cultural construction.

In the survey, 21 of KFC's 25 middle-level managers believe that the company's development direction affects organizational culture construction, accounting for 84%; McDonald's middle-level management, 19 people believe that the company's development direction affects organizational culture construction, accounting for 76% %. From this, it can be seen that the middle managers of both companies believe that the company's development direction affects the organization's cultural construction. Therefore, the organization's culture construction and the company's development direction interact and influence each other.

# 4.3 The construction of organizational culture affects the attitudes of grassroots employees.

In the survey, 23 of KFC's 25 grassroots employees believe that organizational culture has a certain impact on their behavior and attitudes, accounting for 92%. Among McDonald's 25 grassroots employees, 20 people believe that organizational culture construction has an impact on their behavior The impact is 80%. It can be seen that the construction of organizational culture affects the behavior attitude of grassroots employees. A positive organizational culture construction will promote the behavior attitude of employees and make employees work harder.

	total people	Percentage	frequency
KFC	25	23	92%
McDonald's	25	20	80%

## 4.4 Reliability

The data in the paper are all obtained from the survey and are all first-hand data. They have high reliability and are the theoretical source of this paper. Therefore, the conclusions drawn are also highly reliable.

#### CONCLUSION AND DISCUSSION

It can be seen from the results of the above survey and research that organizational culture construction has an important impact on the company's development, which is an important basis for senior managers to manage the enterprise, and an important influencing factor for middle-level managers to manage grass-roots employees, and an important component of the thinking of grass-roots employees In part, but the research results of this article are only the research results of two individuals, KFC and McDonald 's. They are representative of the group culture construction of the entire catering industry, but they cannot be fully represented, so they have certain limitations. In addition, in the organization of culture construction In this field, there are many other industries to be studied. Different organizations have different directions of organizational culture construction. The power and significance of organizational culture construction is not limited to the above aspects. There are other aspects that need to be investigated.

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# RESEARCH ON THE MARKETING MODEL OF "5A" INNOVATIVE ENROLLMENT UNDER THE BACKGROUND OF BIG DATA

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#### **ABSTRACT**

With the development of information technology, a large number of data become the most valuable wealth. All kinds of data information permeate and influence our life and work, and it is of great significance to promote social development to discuss the application of big data in reality. As a higher vocational and technical college (hereinafter referred to as "high vocational school"), enrollment is the foundation of the school's survival and development, as well as its main marketing method. This paper takes the enrollment marketing of Hunan Sany Polytechnic as an example, starting from the enrollment data of the school in recent three years, constructs the enrollment big data information platform model, studies the "5A" innovative enrollment marketing mode, helps vocational schools to expand the number of candidates, reduce the enrollment cost, establish a good brand image of the school, and strengthen the leading position of the industry.

**Keywords:** Big data; Platform; 5 A; Admissions marketing.

#### INTRODUCTION

McKinsey, a world-renowned consulting firm, was the first to propose the arrival of the era of "big data". It said: "data has penetrated into every industry and business function field and become an important factor of production". The mining and use of massive amounts of data heralds a new wave of productivity growth and consumer surpluses<sup>[1]</sup>. The data set of big data index is larger than 10TB, which has the characteristics of scale, diversity, high speed and value<sup>[2]</sup>. Using data space technology to organize data and realize multi-level and multi-dimensional big data mining is an effective way to deal with big data and also meets the needs of big data management and service<sup>[3]</sup>.In 2019, the ministry of education, the national development and reform commission and other six departments issued a notice on the implementation plan of the special work of higher vocational school enrollment expansion, which will expand the enrollment of one million people. Through the subsequent formulation of relevant enrollment expansion policies, the enrollment expansion of higher vocational schools and the improvement of the overall skill level of the labor force will rise to the level of national strategy, which is an opportunity for the development of higher vocational schools. In 2019, there were nearly 499,000 examinees in hunan province (an increase of 10.4 percent compared with that in 2018), while hunan province has 51 undergraduate schools and 73 junior vocational schools, posing a challenge to higher vocational schools due to the competitive pressure of students. Especially for the short time of the private high vocational school, the recruitment of students has become the primary work of the whole school. How to use the marketing data of previous years to analyze the key influencing factors of the marketing of enrollment, which has special significance to guide the marketing of enrollment in the future.

## 1. Investigation and data analysis on the status quo of enrollment in higher vocational schools in hunan province

# 1.1 Statistical analysis of the number of college entrance examination students in recent three years

In the past three years, the number of people taking the college entrance examination in hunan province was 411,000 in 2017, 452,000 in 2018 and 499,000 in 2019. The number of people taking the gaokao in 2018 increased by 41,000, or 9.97 percent, compared with 2017, and by 47,000, or 10.39 percent, compared with 2018.

## 1.2 Enrollment data and analysis of higher vocational schools

In this study, the enrollment and marketing data of representative national model schools, provincial model schools and private high vocational schools are selected, as shown in table 1. The data show that the relative admission rate of national and provincial model schools is lower than that of non-government high vocational schools, regardless of whether they are located in the provincial capital. The private high vocational school admission rate is high, the student source is tight, the overall quality student source is relatively few.

## 1.3 Recruitment marketing pain points

- 1.3.1 The number of students is limited at the present stage, and there is still a prejudice against private vocational education.
- 1.3.2 The competitive environment of enrollment marketing is bad, and the enrollment cost is too high. The public high vocational school not only has the policy support, but also has the student source referral fee ranging from 500-1500 yuan, individual private high vocational school generally has the student source referral fee ranging from 2500-3600 yuan, brings the impact to our school's "sunshine enrollment (zero referral fee)", the enrollment marketing pressure is particularly obvious.

**Table 1** Enrollment data sheet of hunan high vocational school in recent three years

		1 high	2 high	3 high	4 high	5 high
The class type	year	vocationa	vocationa	vocational	vocationa	vocationa
		1 schools	1 schools	schools	1 schools	1 schools
Number of	In 2017,	5200	2980	3040	3089	1800
	In 2018,	4900	2710	3100	3200	1900
national plans	In 2019,	4800	2600	3310	3420	2600
Number of	In 2017,	20930	15700	14200	15002	1926
applicants for	In 2018,	26850	16800	14000	16520	1832
unified recruitment	In 2019,	23488	16000	15008	18803	2400
Number of	In 2017,	10230	5360	3700	3020	1218
applicants for	In 2018,	13650	5400	3862	3120	1569
the first year of application	In 2019,	12902	5210	3360	3314	2382
	In 2017,	50. 83%	55. 60%	82. 16%	102. 28%	147. 78%
Acceptance rate	In 2018,	35. 90%	50. 19%	80. 27%	102. 56%	121. 10%
	In 2019,	37. 20%	49. 90%	98. 51%	103. 20%	109. 15%

Note: I high vocational schools, on behalf of the provincial capital of a national demonstrative higher vocational schools and high vocational schools on behalf of the provincial capital city of national demonstrative higher vocational schools, high schools, 3

on behalf of the provincial capital city of a provincial demonstrative higher vocational schools, high schools, 3 on behalf of the provincial capital city of a provincial demonstrative higher vocational schools, high schools 5 on behalf of the provincial capital city some ordinary private high schools (hunan sany industrial vocational and technical college); The admission rate is compared with the number of applicants who applied for the first place according to the national plan (this data is from the recruitment website and recruitment brochure of each vocational school).

## 2. Hunan sany industrial vocational and technical college "5A"innovative recruitment marketing model

In order to expand the enrollment scope of hunan sany industrial vocational and technical college (hereinafter referred to as Sany vocational college), in addition to improving the school-running ability and other related soft and hard strength, the school's enrollment and marketing ability can be improved by creating a "5A" big data platform for enrollment and marketing.

## 2.1 5A marketing concept

5A refers to "Anyone, Anytime, Anywhere, Anything, Anyway". The concept of 5A enrollment marketing is spread to teachers, teachers to students, students to students' families and relatives, and students' families and relatives to their friends through the publicity and mobilization of the university general assembly. In this way, the original straight-line communication mode has evolved into an exponential communication mode. At the same time, each school associate is required to publicize the school enrollment marketing in any way in any time, place and affairs, and incorporate 5A enrollment marketing into the school campus culture. On the other hand, through the brand influence of sany group, it radiates the brand power of sany vocational college and helps the school's enrollment and marketing.

## 2.2 Data platform model analysis

Based on the attribute analysis of "user analysis model" based on big data, students are classified and statistically analyzed according to their own attributes (or their associated personnel), and the corresponding analysis model is established. For example, we can check the trend of the number of students in the registration time, and the distribution of students by city and school. Student user attributes involve student information, such as name, age, family, gender, school of graduation and other natural information, as well as product-related attributes, such as interests and hobbies, major selection, and users' first access to the channel source.

2.2.1 Application scenario 1 of the attribute analysis model: the publication status of the source of students is checked by the municipal units

As shown in figure 1, 2058 students from sany vocational college, grade 2019, took part in the questionnaire, with a participation rate of 86.4% (the remaining students were from three-year secondary vocational students). The data information can reflect the actual situation. The top three students were from changsha, shaoyang and hengyang respectively.

2.2.2 Application scenario 2 of the attribute analysis model: students are divided according to the way they understand enrollment information

As shown in figure 2, the top 3 ways for students to understand the school's enrollment information are the school's official website, WeChat and QQ.

2.2.3 Application scenario 3 of the attribute analysis model: students are divided according to their reasons for applying for schools

As shown in figure 3, the top three reasons for students to choose sany vocational college are good employment, recommendation from relatives and friends, and explanation by admission teachers.

By designing the application scenario of the attribute analysis model, it can be seen that the analysis model should be a complex, and there is an inseparable relationship between

them. The scientific interaction and cooperation among the elements of the analysis model can scientifically reveal the potential rules of students' or parents' group behavior, and theoretical derivation is made accordingly. The big data platform of "5A" enrollment marketing has been established by optimizing decision-making and guiding schemes in the practice of enrollment marketing, as shown in figure 4.

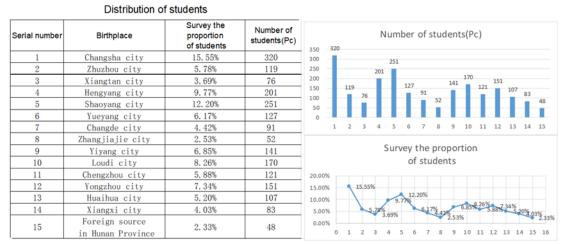


Figure 1 Distribution of students

Students understand statistics of enrollment information

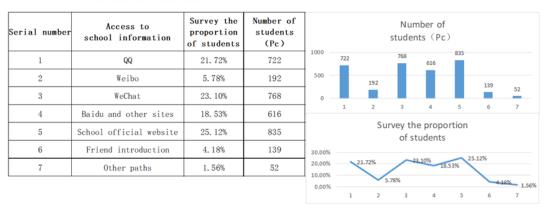


Figure 2 Students understand statistics of Enrollment information

Statistics of reasons for students applying for school

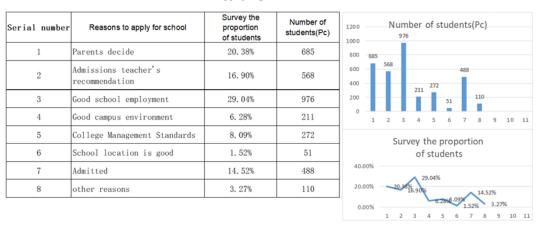


Figure 3 Statistics of reasons for students applying for school

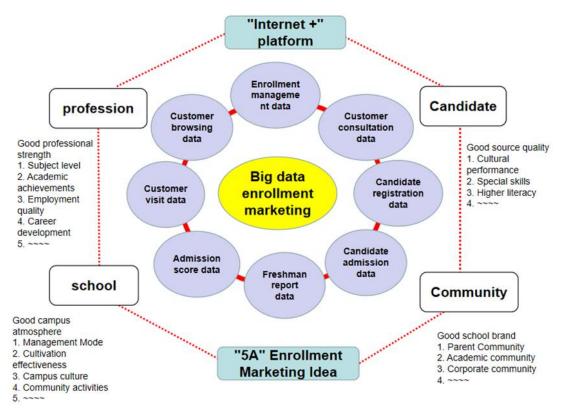


Figure 4 "5A" Enrollments Marketing Big Data Platfor

## 2.3 Target

- 2.3.1 For freshmen, admissions officers, parents and other people design a perfect research system, eight key data (enrollment management data, customer consultation, the examinee registration data, the examinee admission data report, new data, admit a mark data, customer data, visiting customer browsing data), to build a "5 A" vertical marketing big data platform of recruit students, assignment of marketing for admissions to;
- 2.3.2 Provide candidates with free services such as policy answering, volunteer guidance, professional introduction, career planning, etc. for more than 10,000 person-times per year;
- 2.3.3 Provide recruitment information, high-quality introduction materials, push of intended candidates, policy consultation, and professional inquiry of recruitment marketing to recruitment personnel;
- 2.3.4 Provide the school with services such as enrollment marketing process management, information feedback and data analysis.

## 2.4 Online and offline, product promotion and escort

2.4.1 Establish the application of web celebrity mode to lay out the Internet brand promotion matrix<sup>[4]</sup>.By cultivating dozens of campus talents and producing campus themed content works in a way that students like, students can be cultivated to love the school atmosphere and attract more attention from students. The number of fans reaches one million. Professional operation of Internet advertising, targeted at the attention of students and parents, the school's quality promotion content.

#### 2.4.2 Establish a professional recruitment and publicity system

As shown in figure 5, both online and offline work together to build a professional publicity system.

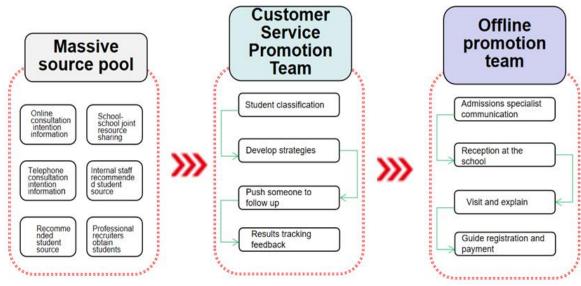


Figure 5 Online and offline professional publicity system

## 3. Summary of higher vocational enrollment marketing

## 3.1 Vision: to build a "5A" digital platform for enrollment marketing and provide accurate registration services for examinees.

By building a "5A" digital platform for enrollment marketing, we have established our vision for enrollment marketing and positioned ourselves to provide accurate registration services for examinees. Gradually integrate the "5A" enrollment marketing culture into the campus culture, and cultivate a humanistic atmosphere in which faculty and staff love the school, students' parents and their relatives love the school, so as to realize a virtuous circle and upward spiral effect of enrollment marketing in the later stage.

## 3.2 Strengthen brand building and build core competitiveness

A school's brand refers to a school with a specific name and logo in the process of establishment and development, which is reflected in the school's education quality, service level and cultural heritage, and is recognized by teachers, students, staff and all sectors of society[5]. Increasing the brand building of the school can promote the school to obtain the dominant position in the recruitment marketing competition. In particular, it is a high vocational school with enterprise education background, which has established the industry demand, leading the future development of ace majors and relevant excellent teachers. For example, the engineering machinery major is the school's flagship major. Relying on the position of sany group in the engineering machinery industry, it has formulated the characteristic talent training program to cultivate the engineering machinery talents recognized by the society, liked by enterprises and recognized by parents, so as to enhance the school's core competitiveness in enrollment and marketing.

# 3.3 Keep pace with The Times and build a we-media publicity platform; To spread positive skills to attract students and parents.

The focus of admissions marketing is to get participants to understand "why" to "what "and from "cause and effect" to "correlation" According to the characteristics of contemporary students, parents, design the key elements of publicity and expression. For example, students care about the school environment, community activities, etc[6]. Parents are concerned about the school's employment rate and career development; This requires the school to build a we-media platform in line with the requirements of The Times, which can be quickly transmitted to the examinees through douyin and kuaishou, so as to establish an instant and good

communication mechanism and provide comprehensive and thoughtful information consulting services for the examinees and their parents. Collect the feedback data of examinees and their parents through the online platform, give feedback to relevant departments, and answer questions in a timely manner; Let the potential candidates feel concerned and valued, let the parents know that their children will grow healthily, safely and expectively, and finally realize the goal that any related personnel are willing to introduce schools in various ways at any time, any place and anything, so as to effectively and efficiently recruit students.

## 3.4 Understand the needs, precision marketing, improve the school brand influence.

With the era development, all kinds of social media emerge in endlessly, people share information become more convenient and free, live communication network, the online survey, detailed understanding of the student to the school focus, not just the past to eat, live, traffic convenience, is more concerned with class society, the development of professional construction, quality, and new elements such as teaching equipment resources, enterprise and summer internship. We must to each big data mining analysis, update the school's official website and public information, with big data platform, and analysis of the students' interests, concerns, to carry on the personalized information push, fixed point tracking, precision marketing, front end marketing, do a technology into education of high vocational schools, a future-oriented high vocational schools.

## 3.5 Summary.

Big data promotes the reform and development of enrollment marketing in high vocational schools and plays an important guiding role in the decision-making of enrollment marketing. Through data analysis of various application scenarios, attribute analysis model is established to construct the "5A" enrollment marketing model and improve the existing we-media publicity platform, so as to effectively improve the market competitiveness and profitability of private high vocational schools. However, while making use of the development of big data, we should do a good job in information confidentiality, strengthen the school's hardware investment and connotation construction, gradually build the school's comprehensive competitiveness and brand influence, and finally achieve the sustainable development of brand recruitment and marketing.

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## ON THE AESTHETIC CHARACTERISTICS OF ART MANAGEMENT

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#### **ABSTRACT**

Art management and art management science not only have the characteristics of art management, but also have very significant art aesthetic characteristics. Art aesthetic management itself should be an important branch of modern art. This article analyzes the performance of aesthetic characteristics in art management activities, and further expounds the aesthetic characteristics of the entire process of art management. On this basis, it explores the application of art management methods and methods in aesthetic characteristics and is relevant to the development of art management activities. Administrative management, economic management, public opinion management and more micro art management system methods should all be based on the extensive infusion of the aesthetic spirit of art as their important driving force.

**Keywords:** art management; aesthetic characteristics; art activities; performance

#### INTRODUCTION

## 1.1 Research background

Art management is a behavior that guides people to create various art management activities and related products and implement art management. On the one hand, it mainly focuses on art management, which is an important component of the modern management art discipline; It also has an incompatible relationship with art aesthetics and modern art. Modern arts and management as two disciplines of truth and reality should be based on the modern arts system as the theoretical basis, with the arts management system as the theoretical support, and with multiple specialized discipline systems such as political economy, sociology, psychology For theoretical guidance. Understanding the art aesthetic characteristics of China's art management and related art management related disciplines helps us to correctly understand the important position and leading role of the art aesthetic characteristics spirit in China's art professional management discipline activities and the construction process of management disciplines, and promote China's art Professional management gradually matures on the development track of modern science.

#### 1.2 Problem statement

This article analyzes the performance of aesthetic characteristics in art management activities, and further expounds the aesthetic characteristics of the entire process of art management. On this basis, it explores the application of art management methods and methods in aesthetic characteristics.

## 1.3 Research questions

The application of art management methods and methods in aesthetic characteristics.

## 1.4 Research Purpose

Instruct people to create and implement various art management activities and related products.

## 1.5 Research significance

Understanding the art aesthetic characteristics of China's art management and related art management related disciplines helps us to correctly understand the important position and leading role of the art aesthetic characteristics spirit in China's art professional management discipline activities and the construction process of management disciplines, and promote China's art Professional management gradually matures on the development track of modern science.

#### LITERATURE REVIEW

#### 2.1 Performance of aesthetic characteristics in art management activities

- 2.1.1 The object of art management contains aesthetic meaning
  - (1) Art and its products are full of aesthetic spirit

As the main object of art product management in China, the art creation and communication acceptance of art management subjects and related products is a social activity filled with an aesthetic and spiritual cultural connotation. This kind of aesthetic spirit means. Contemporary art culture mainly includes the cultural creation of contemporary art, the cultural dissemination of art-related products and the circulation in the art market, as well as the cultural acceptance and market consumption of the general public. The creation process of art and cultural products is full of rich and diverse artistic aesthetic enjoyment colors, human art aesthetic enjoyment spirit and artistic wisdom to create the perfect crystallization; the product marketing and cultural communication of contemporary art is the creation of human art cultural products Various aesthetic enjoyment results and their aesthetic connotation value are promoted, and the common expansion of human artists and their creation aesthetic achievements and aesthetic enjoyment value is completed; and art, as the common acceptance and consumption of human art, should be the public 's The common appreciation and acceptance of human art and cultural products aims to finally realize the highest consumption value of human art product activity consumer terminals.

(2) The public service of art is full of aesthetic meaning

As an important component of art management, the cultural public service of art is also full of cultural meaning of art aesthetics. In contemporary Chinese society, the art management service system is an important internal component of the art public service management system. In an important position as the main body and the core of the service. The provision of public services for art is already a basic and important content of contemporary Chinese social, political, cultural, and economic activities, and has become an important symbol of the prosperity of social material civilization in a modern country and region. Different from other public services, as a public service of cultural arts, cultural management services, from beginning to end, permeate the cultural meaning and artistic atmosphere of artistic aesthetics. It has always immersed people in an atmosphere of aesthetic beauty, and it has become an important life path for modern people to learn from the beauty of business interest and inspiring spirit to accept creation.

(3) The content and form of cultural heritage and intangible cultural heritage are full of aesthetic meaning

In the contemporary era, the protection of world cultural heritage and intangible modern cultural heritage has gradually become an important part of cultural and

artistic heritage management. The good protection, research and dissemination of world cultural heritage and intangible historical and cultural heritage have gradually become the common consensus of our society. It can be seen that the structure style and appearance of a large number of material cultural heritage and intangible historical cultural heritage, but at the same time, it also constantly shows rich traditional art and cultural characteristics, which are closely related to people's aesthetic activities.

2.1.2 The main body of art management demonstrates the rich aesthetic characteristics In the overall cultural production system of art activities, art and cultural production takes people as creators and people as producers and people as production subjects, arts as human communication and cultural marketing use people as communicators and people as marketers and people as communication subjects, and arts as people accept and Cultural consumption takes people as recipients and people as consumption subjects. In the financial management work system of an art management activity, an art activity manager is the main body of work.

In the overall work activities of the entire art production management as the main body, the aesthetic management elements have become its working soul and activity main line, which runs through the work of the entire art production management main body activities. Respect the laws of modern art and philosophical aesthetic management, and always believe that it is very important to adhere to the basic theoretical system of art aesthetics or philosophical art management philosophy as the basic theoretical guidance. Only in this way can we be accurate and scientific in the process of creating and managing art undertakings in China It can perform its duties properly, and at the same time, it can safeguard and effectively protect the basic legal rights and interests of the artistic personnel of all parties, promote the continuous progress of art management creation in China, and promote the continuous growth of art management productivity.

2.1.3 The target system of art management activities is unified with the aesthetic ideal (1) Art activities are social activities with multiple values

Artistic activities have social activities in which multiple social values can be reflected, such as economic and social values, cognitive cultural values, ethical and moral values, etc., all of which have a very important social significance. The basic work purpose of arts and cultural activities is to create a form of artistic aesthetics that meets the modern people's pleasure and spiritual pleasure, a psychological desire and a spiritual and cultural communication between aesthetic and emotional emotions. An artistic cultural product and an artistic cultural activity bring a kind of psychological satisfaction, emotional cultivation and spiritual comfort to modern people's lives. To adapt to each other, art work management service activities must also have a clear art goal responsibility system, and at the same time be accompanied by the continuous pursuit of art aesthetics and art innovation.

(2) Art managers determine basic work objectives for art activities

Not only art production operations and institutions and institutions must strictly confirm their specific basic art work activity management projects or the basic management goals of the creation of specific art works, art and culture managers need to carry out comprehensive integration of contemporary art and cultural production and contemporary art and cultural services, On the one hand, constantly strive to meet the growing cultural aesthetic art culture and contemporary art life needs of the people of our country, but also need to constantly activate the creation of contemporary art culture, generate strong contemporary art and cultural productivity, and promote the soft power of art and cultural industries in developed countries The rapid growth of China must also focus on promoting the market-oriented development of contemporary art and other cultural industries, making it an important pillar art industry of the national economy, and making a tremendous contribution to the sustainable development of the socialist economy.

(3) The target system of art creation and its management activities are integrated with aesthetic ideals

Art creation and its management and service activities have always been related to and accompanied by the overall economic development of the people's society. It aims to greatly enrich the culture of art creation products, so that the people can obtain the cultivation of the spirit of aesthetic integration between art and society. Focus on improving the artistic aesthetic spirit quality and artistic innovation ability of all social members of all nationalities in the country, and promote the free and independent development of modern people. In the meantime, the creation of cultural works and management of cultural works will develop into a common whole, and under the guidance of the common aesthetic goal value system, it will drive the material civilization of human society to gain more on the basis of co-creating value and common aesthetic value. Quick and comprehensive development.

## 2.2 Aesthetic characteristics in the whole process of art management

The core aesthetics and creative driving mechanism of art management can run through the entire process of modern art management service activities, covering all aspects of modern art management service activities. In the entire work process of art product management, we always insist on highlighting the cultural meaning and artistic atmosphere of art aesthetics. This is also the meticulous creation of beauty and the creation of art products. It is in the general academic sense that people also refer to the modern art culture management system as art aesthetics and culture art management.

## 2.2.1 Subjectivity of artistic creativity and planning stage

Art creativity and event planning refers to a kind of overall creative design and planning construction for a certain art performance activity or performing arts project. Incorporating the spiritual connotation of art aesthetics in the design creativity and activity planning of art activity management is an inevitable inherent requirement for art management activities.

Art design creativity and event planning often have multiple artistic levels. From the basic origin of a variety of artistic creation activities, to the reasonable confirmation of the basic characteristics of an artistic creation activity, the reasonable construction of artistic activity content, the determination of the overall style of artistic works, and the rationality of the operational life cycle of artistic activity productivity Planning, etc. At the level of design creativity and project planning, the creator should also be a project manager and design artist.

On the other artistic level of artistic creativity and project planning, such as the overall composition and personnel selection of Chinese art creation projects, it is necessary to fully consider the overall understanding of Chinese art creation projects and continuously select the most from the widest possible art horizon Good for professional artists who can express the connotation of Chinese art and culture. Although the above work involves many fields such as technological cultural creativity, marketing cultural creativity, etc., it also fully integrates many factors of project management, which not only has high specific requirements for the professional art and cultural literacy level of project managers, but also can Require its members to have more creative abilities.

## 2.2.2 Visibility in the production and operation of art

Art management is not only a scientific and orderly social behavior of art management, but also fully integrated with the rich meaning of Chinese art and culture, and has become an art management activity that integrates multiple aesthetic cultural elements. In the meantime, the cultural aesthetics and spiritual cultivation of Chinese art should be regarded as a center and a soul of the cultural activities of China's art operation and management, so that it can become a leading and creative art and culture management in China A main line guides the direction of the development of literature and art and the route of art operation management in China's art management activities.

In the process of creation, production and market operation of contemporary art works, strict selection of related art personnel, business training and reasonable deployment of related personnel in the process of art production and management all need to strictly meet the basic requirements for the creation of contemporary art works. Managers should first pay great attention to familiarity with the different personality characteristics, artistic creation capabilities and professional advantages of art creation managers. They are knowledgeable and competent, and they are good at protecting the basic artistic interests and legal rights of art creation managers through effective business management. In order to encourage art creation management personnel to fully inspire art creation enthusiasm and art vitality in art creation production, and exert the greatest artistic creativity.

## 2.2.3 Creativeness of art communication and marketing

Art communication activities are an integral part of the connotation expansion of contemporary art and cultural activities, and are an important link to directly realize the aesthetic cultural value of contemporary art works. If we look at it from the perspectives of correct grasp of communication methods, correct selection of communication management paths and accurate control of communication management, communication is clearly full of educational meaning of communication management. As an art marketing, it is not only a market-oriented integration operation of various art marketing products and other art marketing services, but also a necessary way to achieve the maximum consumption value through art products. From the point of view of its basic characteristics, communication and art marketing both belong to the behavior of an art enterprise manager, and the two are closely linked to art management.

The brand communication and marketing of art products are also the deep pursuit of contemporary aesthetic art spirit. The cultural dissemination of art marketing products is different from the cultural propaganda of general art material marketing products and general art spirit marketing products. The spiritual dissemination of art marketing products is the art publicity and spiritual dissemination of the aesthetic sense and spirit of general art products; It is also different from general art material marketing products and general spirit marketing products. Art marketing products have both general material marketing attributes and art spirit marketing attributes. They also contain rich artistic aesthetic sense and spiritual marketing factors. As an art enterprise manager, no matter it is an art government department or all members of an art enterprise, it must bear the important mission of widely disseminating the Chinese aesthetic art spirit.

## 2.3 Application of art management methods and methods in aesthetic characteristics

Art management also has rich artistic aestheticism at all levels of enterprise management organization methods and working methods. The positive meaning of aesthetics often directly permeates the basic working methods and management methods of modern art enterprise management. Generally speaking, the basic operation methods of art enterprise management, at the level of enterprise macro management and the micro management level of some enterprises, administrative art management, economic management regulation, and public opinion management guidance have become important basics of modern art enterprise management. method.

## 2.3.1 Application of administrative management methods in aesthetic characteristics

In the management of cultural and artistic undertakings with important macroinstruction significance, the administrative management method should still be an important administrative method for art management, and the important administrative method for artistic management should basically adhere to the administration according to law, and at the same time must fully use the basis Enforce the Party's and state's art-related laws and policies to properly exercise the functions of governing by law. Due to the special nature of modern art publicity activities, its art administrative affairs management should naturally be integrated with the mastering of art aesthetic knowledge. The organization and implementation of its art administrative affairs management must not be considered from time to time in art publicity activities The existence of factors affecting aesthetic mastery and their impact. Only by fully understanding and respecting the development law of contemporary art and cultural aesthetics can we fully rely on the management structure of the national art industry administration and obtain a positive driving effect of art management.

## 2.3.2 Application of economic management methods in aesthetic characteristics

In the contemporary era, people have begun to study more about the use of market economy management methodology to manage contemporary art, or to manage art using the above management methods, supplemented by other economic management methods, especially in the current, operating art market economy The activity has begun to enter the field of management of art business activities in an all-round way. Art and market economy have become a trinity. The effect of economic activities and the effective realization of art value and commerce have become one of the important economic goals of art business activities. At present, various business trading activities of art are generally widely carried out. Most art business activities directly implement art exchange and information dissemination through the exchange of craft commodities, and more of art business activities and craft products directly impregnate the market economy and The complex colors of the art market are directly affected by the market economy and restricted by the market. Therefore, to guide the correct implementation of the management decision-making method of China's economy with the conceptualization of conscious aesthetic awareness should gradually become the conscious aesthetic awareness of economic managers.

## 2.3.3 Application of public opinion management methods in aesthetic characteristics

That is to use the political opinion power of social countries and people's society to continuously influence and supervise and restrict the development process of contemporary art. In contemporary China, the activities of artists are never under the supervision and policy regulation of national social opinion. Social opinion is still a public management instrument of a society, and it does not belong to anyone. The relevant departments and staff of art work management can still play a leading role in social opinion, such as social art work reviews, art appreciation, art competitions, art awards Various art forms, such as the implementation of art management on the main body of social art management activities, affect the development process of social art management activities. In the management of the public opinion activities of the people's art, what should be advocated and opposed, and the excessive derogation and excessive praise of the people's art public opinion activities and people's works of art must be in full compliance with the long-term development and change laws of the objective history of our society It must be in full compliance with the overall aesthetic development law created by the people's works of art, and be consistent with the maintenance of all fundamental interests of the people, and cannot be an important platform for the people to vent their personal aesthetic desires and artistic spirit.

## RESEARCH METHODOLOGY

#### 3.1 Research methods

## 3.1.1 Qualitative Research Method

This article is mainly through the Chinese Journal Network and other network means and libraries to query materials and documents, which can provide an important academic theoretical research basis for the study of this article, and will also have an important reference enlightenment and guiding role for the main research theoretical methods of this article.

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## INNOVATIVE MANAGEMENT OF THAILAND NIGHT MARKET

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#### **ABSTRACT**

The purpose of the research is to better understand the vitality and performance of night markets, the characteristics of night markets, traders, customers and visitors; to determine the density and diversity of night markets. The current Covid-19 is affecting badly the night market of Thailand, the international tourist cannot visit Thailand due to the current pandemic. This study aims to explore the innovative management criteria for the night market of Thailand after COVID-19 situation. The Thai night market is based on the concept of open-air shopping, where hawkers or hawkers set up stalls in designated places on the street. According to local festivals and customs, a variety of foods and non-foods are available on the market, usually every day. As one of the major tourist countries, Thailand has a large number of people entering and leaving Thailand at all times. In recent years, the number of Chinese tourists to Thailand has increased year by year, and exchanges between China and Thailand have become increasingly frequent. The number of Chinese tour groups is even more alarming. Every time you go to a tourist spot in Thailand, it must be the only way to check-in.

**Keywords:** Night markets. Manage. Innovative. Food. Inclusion, innovation and management.

## **Background of the Study:**

With the transformation of consumer concepts and the diversification of business models, distinctive blocks have developed rapidly around the world and have become an image project to create "city card". Such as Wangfujing Street in Beijing, Tunxi Old Street in Huangshan, etc. Governments around the country have also accelerated the construction of culturally characteristic streets and tourist and leisure streets. Snack street as an important part of the characteristic block. Not only adds color to the city's business district. It also integrates and enhances the functions of tourist attractions and commercial streets. Therefore, the construction of the snack street can not only promote the upgrade and development of commercial streets, promote the prosperous development of cities or neighborhoods, bring more economic benefits, but also enrich urban tourism products. It has a positive effect on enhancing the attractiveness of cities and creating personalized symbols of cities.

With the gradual deepening of my country's urban management system reform, street construction has also entered a critical period. If you want a night market to live in order, you must have a management system and managers. "'Night economy' reflects the city's inclusiveness and urban temperature. The traffic police brigade attaches great importance to the safety of people visiting the night market, and escorts the development of the night economy'. It will do good things and do practical things." Staff input, police deployment, joint law enforcement, etc. It is required to plan ahead the roads that open the "night economy", restrict the passage of vehicles with serious hidden dangers such as large trucks and dirt trucks within the prescribed time and area, and reduce the risk of road traffic. It is required to plan ahead the roads that open the "night economy", restrict the passage of

vehicles with serious hidden dangers such as large trucks and dirt trucks within the prescribed time and area, and reduce the risk of road traffic. The traffic police should fully support the "night economy" and rely on the previous step to work together with relevant units such as offices, urban management, enterprises and institutions, and night market operating units to coordinate the use of various strengths, do a good job of service guarantee, standardize business behavior, and improve City fine management level.

Then traffic management is in place and food safety issues should not be underestimated. The existence of a night market is not simply a matter of choice, but a comprehensive proposition of how to standardize and improve it under the existing social and economic conditions and legal framework. Street vendors must survive, urban management must enforce laws, and food must be safe. One is the "lizi" of the city, one is the "face" of the city, and the other is the "hat" of the city. How to choose? This is a comprehensive consideration of the government's urban management level, citizen happiness index, and food safety assurance capabilities. Require the food and drug (market) regulatory department to enter the production and operation site to conduct on-site inspection Sampling inspection of foods for production and operation; checking and copying relevant contracts, bills, account books and other relevant materials; sealing up and detaining foods that have evidence to prove that they do not meet food safety standards or have evidence of potential safety hazards, food ingredients used illegally, Food additives, food-related products, and tools and equipment used in illegal production and operation or contaminated; seal off places that engage in illegal food production and operation. The existence of the night market shows from the market point of view that the current citizens have needs; from the point of view of people's livelihood, each stall carries the livelihood and career, dream, entrepreneurship of a family on the shoulders; from a cultural point of view, it can show The city's characteristic scenery, landmark culture and customs. The Zhongtai Night Market has its own characteristics, from food characteristics to tourists to landscape characteristics. At the same time, it will bring warmth and kindness to foreigners and locals with the unique courage and tolerance of the metropolis, and will also attract more tourists. tourism.

With the transformation of consumer concepts and the diversification of business models, distinctive blocks have developed rapidly throughout the country. It has become an image project to create city business cards. Such as Wangfujing Street in Beijing. In Huangshan, Tunxi Old Street, etc. Governments around the country have also accelerated the streets with cultural characteristics. The construction pace of tourist and leisure streets. Snack street as an important part of the characteristic block. Not only adds color to the city's business district. The functions of Yejiang Tourist Scenic Spot and Commercial Street are integrated and upgraded. Therefore the construction of the snack street. Not only can promote the upgrade and development of commercial streets. Promote the prosperous development of city or block business. Bring more economic benefits. It can also enrich city tourism products. Have a positive effect on enhancing the attractiveness of cities and creating personalized symbols of cities.

Snacks represent a specific way of life. For locals, here, people can not only eat, but also release themselves, alleviating the pressure of daily life and work. For foreigners, the local characteristics they represent can give them a psychology of quirkiness and comparison. People who eat in Beijing can find good places at will. Longfusi Snack Street, Wangfujing Snack Street and Dongzhimen Nei Street are all popular places. For the low-income people, there are also dense snack spots in the alleys of Beijing. Can find his own life. Therefore, at this level, the local traditional culture represented by the snack street is the carrier on which people depend and maintain.

#### LITERATURE REVIEW

Each of us has our favorite food, but do we understand the history of these foods? When we buy burgers in fast food restaurants, do we ask ourselves: "Who invented burgers?" But in fact, many of the foods we eat every day have an interesting and ancient origin. Let us take a look at the origin of these foods. Many people think that hamburger is an American invention. But in fact, the first country where Hamburg was born was not the United States. It has a very long history, although it did not fully possess the current structure at the beginning of its birth. The term "Hamburg" first appeared in 1880 and was invented by immigrants from Hamburg, Germany while cooking. In order to cook beef, they crushed it into flat patties, and nicknamed it "Hamburger steak". Over time, the name of this meatloaf was reduced to "burger". Who invented the combination of steak, tomatoes and onions in bread has no way to prove it. But today's fast food all have to thank the existence of this genius.

Therefore, food is not just a single way of eating. Just like the origin of burgers, no one knows that it will later evolve into today's tomato, lettuce and salad dressing. This is an innovation. There are many such innovations. Who would have thought that the mango in the fruit can be eaten with rice, this simple thing is extremely difficult to achieve. It formed the "Mango Sticky Rice", which is one of the characteristic traditional dishes in Thailand. Thailand is one of the major rice consuming countries in Asia. The lives of local people have been closely integrated with rice since ancient times. Rice is not only the main food of every meal, but also has cultural significance. Among the rice varieties, the most famous is glutinous rice. Traditionally, glutinous rice is the main food in northeastern Thailand. Mango glutinous rice is one of the classic dishes. Although the preparation of mango sticky rice is simple, it has a rich taste. In addition to the sweetness when you just eat it, the wonderful taste of the glutinous rice and coconut milk mixed with it is endless.

Every catering industry will launch new products every season, special drinks in summer, limited in winter, so that they will not be abandoned by the masses, because a person's taste will not only change, but also because of the same taste or food, bored and tired Sense, so freshness is very important, which is also one of the management methods of the catering industry. Although the snack street has a huge daily traffic and may even be different tourists, he will also innovate some new products or activities on the basis of retaining the original characteristics. During the holidays, he will also come according to the different festivals. Customize the atmosphere of the exclusive festival. For example, the Dragon Boat Festival, like the friendly relationship between Thailand and China, will hang banners in the streets and shopping malls early to wish the Chinese Chinese a happy Dragon Boat Festival, and will also sell rice dumplings that are not normally available to the Chinese people on the snack street, of course. , Locals will also follow the fun to buy, which also greatly increased sales and increased turnover, which is also innovative management.

The current COVID-19 incident has a great impact on the catering industry across the country. In the face of a severe epidemic, most physical stores cannot operate normally. Even if they resume operations, it will take a long time to resume normal business turnover. Face rent and employee wages, Inventory loss is under heavy pressure from all parties. Catering companies have successively introduced various emergency plans and operational measures. Some companies that focus on take-out ports provide consumers with food services online. The marketing pressure is low and profitable, while most stores Operating out of passive tactics, they are busy reducing rents and staff. So, how can companies change from passive response to active strategy? For catering companies, making money is not the goal, but survival is the real thing. In the face of this predicament, catering brands must not only get out of the predicament by themselves, but also seize the opportunity to gain social recognition and gain consumer recognition of the brand's behavior, value, and philosophy.

Public welfare action. External public welfare actions are not utilitarian in the first place. Public welfare regardless of size, facing the difficult situation, catering companies can combine their own good at doing voluntary service for the society, or they can work together to reduce burdens, share resources, focus on public welfare affairs, and put aside the past. Competitive attitude, and overcome difficulties together, because there are no opponents, no competition, only comrades-in-arms in this pandemic.

Caring action. For people who set up stalls on their own, in this "epidemic" risk, caring for family members inside and outside is the most important of all-round measures inside and outside. Because catering companies are most afraid of employee infections, they need to be responsible for their employees' safety. To ensure their normal life, to calm their emotions, and to provide psychological counseling,

Product action. The most impacted by the epidemic is the dine-in catering that is sold in stores on weekdays. Seeing that takeaways have an advantage, they are sighed. Due to the lack of popularity and consumer groups on platforms such as Dianping, Meituan, and Wechat, it is difficult to quickly imitate and have a favorable rate and return rate. Faced with the situation, it is better for the store to calmly deal with it, not to focus on marketing profits, and not to rush To seize the market, work hard to improve food safety, product simplification, takeaway packaging sales, etc., and try to maintain the leisure characteristics of dine-in, apply for delivery qualifications as soon as possible, and believe that product quality is the best action.

## 1. Social responsibility first, establish correct marketing values

This battle is the epidemic of the national war. Enterprises should not wait for rescue and enjoy policy relief. They should actively promote epidemic prevention through their own efforts, give full play to the characteristics of catering, and quickly obtain opportunities to serve consumers. Marketing, take the initiative to care about the lives of others, with the goal of sharing social responsibilities, increase consumer recognition opportunities for the enterprise.

## 2. Change sales concept and mix online and offline services

Due to the bleak operation of the store, during this period Dingdong grocery shopping, Hema fresh, daily excellent fresh and other online orders surged. Takeaway delivery has become another new way to solve the crisis and operation. How to break the store operation? Epidemic" self-help? It is recommended that enterprises resolutely change their business methods based on their own product characteristics, self-rescue marketing on the premise of ensuring food safety, and transfer the "store" business model to the "online supply + safe delivery + self-service cooking" sales and service.

In a word, as long as innovation is right, otherwise you will be stepped on by your feet, and you will never take your ideal position. The epidemic situation is not terrible, what is terrible is the hearts of the people, as long as the hearts of the people are stable and not scattered, people will win the sky.

The impact of public health events represented by the new coronavirus on the development of the catering industry will not only have a long-term impact on people's catering behavior, eating habits, consumption concepts, and social ethics in the future, not only in economic losses. This epidemic is testing the marketing strategy of catering companies. The most difficult time is often the time when it is easiest to obtain consumer recognition and credit appreciation. Please convey the belief of the company to consumers and employees through public welfare action opportunities. In the future, a period of "epidemic" will be broken, and enterprises need to do more exploration in focusing on operation, meal sharing services and consumption methods. Faced with this dilemma, catering brands must not only get out of the dilemma themselves, but also seize the opportunity to gain social recognition and consumers' behavioral identity, value identity, and concept identity with brand companies.

#### **CONCLUSION AND DISCUSSIONS**

There is no doubt that the night market, as the soul of a city's night activities, enriches people's lives, promotes the development of tourism and thus drives the city's economic development.

- 1. The development of the tourism industry has promoted the improvement of the investment soft environment, accelerated the pace of local opening to the outside world, and promoted the value-added and efficiency of the primary, secondary and tertiary industries. Through the development of tourism, it can more effectively promote the cultivation, aquaculture and agriculture. The development of characteristic industries.
- 2. Farmers quickly increased their market economy awareness by participating in tourism, which laid the ideological foundation for the adjustment of the rural industrial structure and realized the reuse of primary and secondary industrial resources.
- 3. The types of talents required for the tourism industry are diverse. Most practitioners have lower technical requirements and it is easier to train and master. Therefore, it is possible to provide more jobs for some unemployed people with lower education level.
- 4. Promoting commercial consumption and accelerating economic growth; rationalizing and optimizing the industrial structure sector, as a non-productive industry, driving other related industries; the rapid development of cross-border tourism has also played a positive role in the country's foreign exchange income.

The impact of tourism and tourism activities on social culture: the preservation and promotion of the local unique culture has played a positive role in the development of local culture, and at the same time, we must pay attention to the protection of the local culture's internal quality and purity to prevent damage and regression; promote Through cultural exchanges between different regions, mutual learning and common progress have been achieved; the quality of life and spiritual and cultural living standards of local residents have been improved and improved. Because tourists come from various cultural regions and the quality of tourists is different, it is necessary to prevent the destruction of the local social atmosphere and stability. The development of tourism can bring considerable economic first entry, social impact, reasonable and full use of resources, and coordinate the relationship between man and nature, so that natural resources and living conditions can be jointly and beneficially developed. Only when the two are unified can the development of harmonious co-construction be achieved.

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## DEVELOPMENT AND INNOVATION OF MINIATURE SLR CAMERA

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#### **ABSTRACT**

With the development of science and technology, people's needs are increasing day by day, and the requirements for digital products are getting higher and higher. The result is not disappointing. The development of digital products, especially cameras, is getting better and better. Since the development of the camera, it has a history of 140 years. From the beginning, a single function was very large, and now these functions are getting easier to carry. Especially the very popular miniature SLR cameras, which appear on the market with new features such as miniaturization, automation and high performance. It's refreshing. It can reflect the rapid development of science and technology. The current micro SLR cameras on sale meet the shooting needs of many young people, but there are still many SLR enthusiasts who don't like them. They think that the functions of micro SLRs are not as good as SLR cameras and are not worth buying. So this article will study and analyze future micro SLRs. How the camera develops and innovates

Keywords: Miniature SLR camera, innovation, consumer, function, weight, color

#### **INTRODUCTION**

Self-media videographers or people in life need cameras very much, but the weight of cameras is professional. It is inconvenient to operate, so a mirrorless camera and a mini SLR appeared. This kind of camera is easy to operate, and in. It is very convenient to carry, anyone can quickly get started and use it. Nowadays, there are various types of micro-SLRs. Micro-single has two meanings, micro, micro and compact, single, interchangeable single-lens camera, which means that this word means that this camera is compact. The size and the general picture quality of a SLR. That is, a camera with a small size and SLR function is called a mirrorless camera. Mirrorless cameras are between card-type digital cameras and SLR cameras, just like netbooks appear between laptops and smartphones.

#### LITERATURE REVIEW

Because of the continuous efforts of inventors. Today's cameras have changed a lot. It appears on the market with new features such as miniaturization, automation and high performance. Historically, one of the innovations of cameras is the high-performance structure, compact, lightweight and portable. The small one can even put it in your pocket. A camera weighs only more than 100 grams and can be placed in a jacket pocket, which is a fact today. The second innovation in the history of the camera. Electronic cameras have also been further developed. It is said that this camera also comes with a solar battery that can be used permanently. The third innovation of the camera road is. Japan's Sony Corporation successfully developed a filmless camera in 1981. Use traditional photographic techniques such as film, photo paper and darkroom development. The fourth innovation is the

cooperation of electronic computers and cameras invented in the United States. It is amazing to take so-called future photos for people. Changes in the history of the camera. People are constantly dreaming about the future of the camera. Some people think that the camera will be more convenient in the near future and can be operated by people who do not know how to use it. And take a perfect photo. And now it has become a reality.

According to Moore's Law, every nine electronic products led by computers There will be an upgrade once a month. Of course, digital cameras are no exception outer. How will the future of digital cameras develop? According to digital photography. The development trend of the camera may be mainly based on the appearance of the digital camera<sub>o</sub> And internal quality to consider.

The appearance of a mini SLR camera Compared with the early digital cameras, today's digital cameras. The biggest difference in appearance is that the consumer-grade moves towards a thin and fashionable side. Toward development; while the professional level is developing in a larger and "heavy" direction. Most of the many high-end consumer digital cameras launched today have Has an all-metal body. Covered with rubber or frosted plastic shell, from. In terms of feel, it is already on par with professional digital cameras. And another hand, numerous fashionable thin and light digital cameras have been launched continuously. In the eyes of many people, in addition to shooting functions, consumer digital cameras have also become a fashion accessory. Professionalism and fashion will be the two directions for the development of digital cameras in the future: The photographic performance of digital cameras. The development of digital cameras in photographic performance will mainly start from the following

Several breakthroughs.

- 1. No longer limited to pixels
- 2. The lens develops towards two poles

The zoom lens is an important component of a digital camera. along with the expansion of the zoom ratio of the lens, the fixed change of the consumer-grade digital camera.

Focus lens, with a wider angle of view and longer telephoto capabilities. Make consumer-grade Digital camera has a larger shooting range.

3. Sensitivity advances to a higher direction

Continuously increasing the sensitivity of digital cameras can make digital photography The camera is in very dim light, and the exposure can be taken without a flash.

Optically accurate digital photos

- 4. Highlight video effects
- 5. Anti-light and anti-shake
- 6. Increase continuous working hour

## CONCLUSION AND DISCUSSIONS

The innovation of the miniature SLR camera represents the progress of science and technology, and the contribution brought by technology is too much. In addition to the benefits brought by the development of technology, there are also some industrialized things that provide a lot of convenience in our lives. Digital cameras bring photography The new revolution is coming, the key is fast, people can immediately see the effect of shooting, and change the cumbersomeness of film processing. The digital camera bai is roughly the same as the traditional camera in the image capture part, only looking at the front shape of the du camera. The camera is not much different, but in imaging and recording, the difference between the two is great. Traditional cameras use film, while digital cameras mainly rely on photosensitive chips and memory cards. Although considering the price alone, digital cameras are more expensive than traditional cameras, but they have many advantages over traditional cameras.

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# THE EFFECT OF WORK STRESS EMOTION MANAGEMENT ON WORK STATE AND ENTERPRISE DEVELOPMENT

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#### **ABSTRACT**

The main purpose of this paper is to study whether the internal workplace pressure and the external survival pressure of the social environment will affect the mental health of employees, cause the decline of work motivation, increase the intensification of workplace contradictions, and thus affect the performance of employees, work status, work efficiency and good development of enterprises.

The main variables involved in this study are: the source of work stress, the research history and current situation of emotional management are reviewed and summarized. The relationship between work stress source, emotion management and enterprise development is analyzed qualitatively through literature. The theoretical conception of this paper is put forward through analysis.

Based on the main line of work stress, this paper first discusses the formation and source of work stress, and the role of emotional management in work stress, and discusses whether emotional management can be a medium to guide the work pressure and work efficiency. The relationship between work pressure, emotion management and work efficiency is further confirmed, and whether these three combined effects will have an impact on the development of enterprises.

The theoretical conception of this paper is confirmed by the literature and summarized as follows:

- 1. The stressors of employees come from different environments and are not confined to the working environment.
- 2. Emotional management is related to their own pressure valve, the higher pressure valve staff can better control the working pressure, the lower pressure valve staff more sensitive to the working pressure.
- 3. Too much work pressure and can not have positive emotional management will lead to inefficient work, affecting the development of enterprises.
- 4. Enterprises should provide sustainable development planning for their own development and working environment. Modern human resource management should not only pay attention to the management of talents, but also pay attention to the mental health of employees.

**Key words:** work stressors emotional management work efficiency.

#### **INTRODUCTION**

The competition of modern enterprises, exploring the root is about the competition of talents, how to develop the potential of employees and make use of their own advantages, is an important subject in the innovation process of enterprise human resource management. Under the premise of the rapid development of the global economy, most enterprises pay more attention to the interests and development, ignore the mental health problems of

employees, and employees themselves because of the high intensity of work state, ignore or ignore their own emotional problems, the cognition of negative emotions stays on the surface phenomenon. According to World Health Organization 2018 statistics :39% of skilled workers are prone to depression (2018.11.20). WHO in 2 The world's second-largest cause of death in the 15-29 age group is estimated to be 800,000 suicides per 40 seconds a year in 2019. According to China's 2014 statistics, about 200,000 people commit suicide every year in China, and civil servants and white-collar workers are at high risk of suicide. About 1 million employees in the United States are absent every year due to psychological stress, and each employee's absence can cause a loss of \$668. Forty percent of job-hopping or job-switching is due to job stress or burnout. China produces about 5000" occupational patients "every day.

#### **Problem Statement**

Whether the internal workplace stress and the external survival stress of the social environment will affect the mental health of the employees, cause the decrease of the work motivation, increase the intensification of workplace conflicts, and thus affect the employees'performance, work Status, work efficiency and the good development of the enterprise.

#### **Research Question**

What is the impact of work stress emotional management on work status and Enterprise Development?

#### Research objectives

In order to improve the efficiency and working state of employees, so that the internal operation of enterprises sustainable development, improve the competitiveness of enterprises. It is necessary to determine how the employee's stress affects the work state and the development of the enterprise, as well as the reasons for the formation of the employee's stress, and how to channel the employee's stress in the workplace.

#### **Significance of Research**

Job Stress has become a hidden killer in the workplace, according to the 2012 survey on caring for white-collar workers and white-collar workers'health conducted by China's leading media and enterprises, two thirds of respondents said their bodies were in the Suboptimal health, with work stress, environmental pollution and lack of exercise in the top three. In a certain amount of people, 25.04% of them have some degree of mental health problems, 2.24% have serious mental health problems, 22.81% have serious mental health problems 60% of people want psychological help of varying degrees.

Now successful enterprises not only pay attention to the individual ability of employees, teamwork is also highly valued in enterprises. And stress has a "herd effect ". Enterprises can help employees to correctly understand their work stress emotions in advance, guide employees to take the initiative to manage stress emotions, through the observation, analysis and guidance of staff stress emotions, can reduce the production of negative emotions in the workplace environment, and increase more positive emotions.

#### LITERATURE REVIEW

#### **Summary of working pressure**

Work can also be called Job stress, Occupational stress, Occupational stress, and stress at Work. It is a dynamic emotional outputting in which people face opportunities, constraints, and demands related to their desired goals, and the consequences of this dynamic are perceived as important and uncertain. Stress is a complex pattern of physiological, psychological, and behavioral responses to Stimuli that lead some people to deviate from their normal course of action. The main factors related to stress are stressors, people's cognition of stressors and stress state. But pressure has a very complex connotation, so the study of work pressure usually has the characteristics of multi-angle and multi-level. Stress at work, usually a stress response caused by work or events directly related to work, for example, too long overtime hours, not competent for the current post, irregular working hours, job changes, a long distance to work, the work environment does not adapt to the conflict between colleagues or superiors and inferiors, social environment and so on are all stress conditions that cause work stress. At present, the traditional theories and methods of research on work stress are to confirm and measure each independent concept related to stress from a broader social level, and consider its impact on individuals and organizations. For example, in Hendrix, Summers, Leap, and Steel 1, researchers classified stressors into three categories: internal factors, external factors, and personality traits. Internal factors are considered to be the direct cause of job stress, these include role conflict, role ambiguity, role overload, time pressure, low work autonomy, low use of competencies, low participation and control,managementoversight, organizational climate, and organizational conflict. A similar pattern emerged from the Summers DeCotiis, Denisi 2 et Al..Studyy, which classified the causes of job stress into four categories: personality traits (gender, number of dependents, length of service), and organizational structure traits (formalization, centralization), organizational Process Characteristics (E. G. performance feedback, decision-making), role characteristics (E. G. role conflict, role ambiguity). In these studies, all the factors are static and independent. A great deal of research on work stress is carried out under the guidance of traditional theory, which studies the relationship between some organizational or personal characteristics and work stress. He's a man of the People.

Major sources of work stress:

Pressure source	Major factor	Possible consequences		
Working conditions	Work overload or overload Work complexity and technical stress Work decisions and responsibilities Emergencies or emergencies Physical hazards Time changes	Production line hysteria exhaustion biological clock disorders health threats worry and stress increase		
Role stress	Role ambiguity Role conflict	Lncreased anxiety and stress Low job satisfaction and low performance over sensitivity		
Interpersonal relationship	Lack of acceptance and support intrigue Non- co-operative Leadership Does Not Care about the staff	Lonely Depressed Sensitive Withdrawn		

Pressure source	Major factor	Possible consequences		
Career Development	Promotion or demotion Job security and stability Ambitions frustrated	Loss of self-confidence Increased anxiety Job satisfaction and decreased productivity		
Organizational System	The structure is unreasonable and the system is not sound Factional strife Employees have no right to participate in decision making	Low motivation and productiv iFrustration Not satisfied with the job		
Home,work, interaction	Stressful life events such as marriage, family problems, etc	Increased anxiety and stress physical and mental exhaustion		

#### **Emotion Management Summary:**

Emotion is the state that the inner knowable feeling expresses through the body, is the short and strong reaction, is the subjective feeling, the physiological reaction, the cognitive interaction, and displays some specific behavior. Emotional management is to control oneself, regulate emotions, the response to life in the normal course of events can be controlled in the body, with an optimistic, positive attitude to face the tension. Emotional management was first proposed by Daniel Goleman, who became famous for his book Emotional Intelligence. He believes that by controlling emotions, managers can become great leaders. Simply speaking, emotion management is the process of emotion perception, control and adjustment of the individual and the group.

As a new management method of human resource, emotion management is paid more and more attention by enterprises. According to Erg theory, the factors that affect the emotion of employees can be divided into 5 categories:

### 1. Physical Working Environment

physical working environment includes lighting, temperature, noise, size and color of the working area, office tools, size of office location, etc. . If the working environment is comfortable, the office equipment is convenient to use, can greatly enhance the efficiency of the staff, there is a low probability of abnormal emotions.

#### 2. The nature of the work itself and the characteristics of the profession

The physical conditions of the work can be changed artificially, but the characteristics and attributes of the work can not be changed artificially. According to Erg theory, the first layer needs to be met, first of all, to meet their own physiological and safety needs, because of different job and industry attributes, employees also encounter factors that trigger negative emotions when they fulfill their own existential needs. Some jobs, such as workers, are highly repetitive and physically demanding, while others, such as doctors, involve intense mental work, strained doctor patient relationships, and uncertain surgical outcomes, the nature of these industries and jobs can also have a significant impact on the mood of employees.

### 3. Work Psychological Environment

We here referred to the work psychological environment refers to the needs of the staff in the work of a interpersonal environment, is a work soft environment. Mainly including corporate culture, team communication, colleague relationship, superior-subordinate relationship, power status and other factors. Employees in the work environment, always be affected by this psychological environment. In the interaction between the need motivation and the behavior, the behavior of the employee can influence the change of the employee's motivation, there is no doubt that the psychological environment of work plays a very important role. When employees'behavior is reinforced by the psychological environment of

the work, positive emotions are produced; conversely, when the behavior conflicts with the psychological environment of the work, negative emotions are more intense.

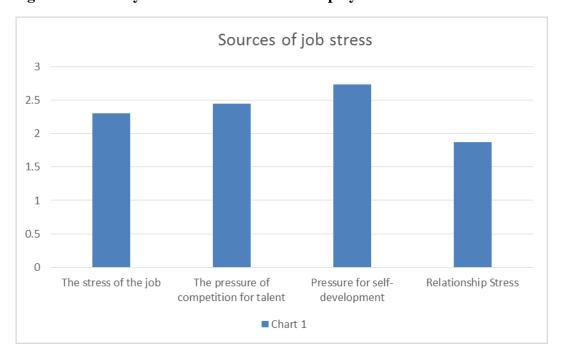
#### 4. Life factors

employees in personal life when the need for relationships will also have a lot of factors to affect the employee's mood. Because of the transitive nature of emotions, these emotions are not only expressed in personal life, but also transmitted to work, and have a herding effect, which affects employees'work efficiency, so it's important to pay attention to the life factors that affect the employee's mood. Some life factors such as family relationships, physical illness and so on can seriously affect the employee's mood. The effect on productivity is more lasting and destructive if employees have certain negative emotions before work begins. Princess Stéphanie of Monaco Wülker, a professor at Ohio State University's Fisher School of business, studied the call center employees of a large insurance company and found that, the employee's mood at the start of the day will have a more intense and lasting impact on the employee's productivity than any other variable or factor.

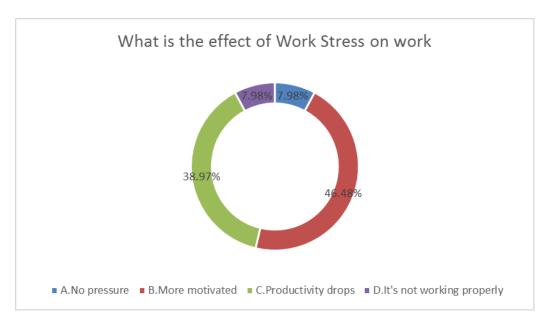
#### 5. Personal factors

when employees produce behavior will produce two kinds of results, one is to achieve the expected goal, a sense of achievement, the other is not to achieve the expected goal, a sense of frustration. Emotions vary from person to person, and when these two outcomes occur, each person's mood changes differently, and mood swings are associated with individual factors. The personal factors related to emotion include personal health, psychological maturity, thinking, character and so on. Amplifying or minimizing facts, perfectionism, and paranoia can all lead to negative emotions. Emotions are the basis of behavior, and these factors are ultimately expressed as a result of a person's specific behavior. In particular, when the employee fails to meet the expected expectations, the employee will actively reinforce the idea of "frustration-return" according to Erg theory, the change of behavior and motivation is closely related to the ability of emotion management. If the staff's personal emotion management ability is insufficient, obviously to its individual promotion and so on growth is very disadvantageous, is also the human resources loss to the enterprise. Therefore, based on Erg theory, the ability of emotional management is very important to the growth and maturity of employees.

#### **Investigation and analysis on the work stress of employees**



As shown in figure 1, in the work environment, the employee's Self-worth and needs can not be coordinated with the expected goals, is one of the major sources of work stress. Employees hope that the enterprise can make a career plan suitable for their own development, and even whether the enterprise has a sound career development plan as an important criterion for the selection of enterprises. Companies have an obligation to provide employees with an opportunity to grow, develop their personal potential, and build successful career plans. In this way, the work content of employees will be more rich, more challenging, enterprises can benefit from it. First of all, we need to determine the employee's career orientation and basic skills to help employees identify career development direction. The employee develops in accordance with the career direction and path provided by the enterprise. Secondly, we provide training and study, job rotation, to design a career path for employees to develop well. The development of the staff depends on the reasonable career management of the enterprise to a great extent. Enterprise-oriented training should be a powerful tool to assist employees'career development. It is the direction of human resource management to attach importance to the promotion of employees'occupational security and work ability through effective training, and to utilize employees'ability and develop their potential.



As shown in figure 2, everyone's emotional mechanism is different, about 7.98% of the employees are mainly positive and optimistic mood, and calm in the face of work, optimistic positive mood more than negative mood. About 46.48% of the employees can reasonably transform work pressure into work motivation, which means they can better manage their own emotional problems. About 38.97% of the employees think that the work pressure affects their work efficiency and attitude. The enterprises should conduct emotional guidance in time to guide the generation of positive emotions. About 6.57% of employees believe that work pressure will lead to their inability to work effectively, enterprises should focus on this kind of staff, the necessary psychological counseling. Each individual's emotional mechanism is different, the enterprise should be able to self-transformation of negative emotions and low-stress employees in the same work environment, use the "transitivity" of emotions to influence employees with negative emotions.

#### **CONCLUSION**

Employee stress comes from many sources, but it affects not just the state of work, but the overall development of the company. Therefore, we should put the employee's mental health in the enterprise's competitive advantage and the enterprise culture, pay attention to the employee's emotion management, keep the employee's good emotion, make it have the good working condition. Enterprises should pay close attention to the prevention and management of the work pressure of employees, control the work pressure in a reasonable range, make full use of the pressure to stimulate the employees and restrain the negative emotions brought by the pressure, to improve the emotional management ability of staff included in human resources training, greatly improve the efficiency of staff, maintain a good working attitude, so that the sustainable development of enterprises. It is suggested that enterprises should bring mental health management into the scope of human resource management.

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# INTEGRATION OF CHINESE AND WESTERN CULTURE TO PROMOTE INNOVATION OF FURNITURE DESIGN CONCEPT

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#### Research background

First of all, the source of China's commerce, foreign trade and cultural exchange has been buried in the long history and is difficult to confirm, but we can still distinguish many traces from the traditional classics, legends and even the daily language. The people of Shang Dynasty were famous for their business skills, so that later generations would call them "merchants"; King Mu of Zhou traveled westward to the Kyrgyz grassland and opened up a road to the outside world for the Chinese ancestors. And the work, even filled with strange birds and animals, legend into the Dayu era of the book "the book of mountains and seas.". According to the research of modern scholars, it is actually a record of the four explorations of ancestors. The first leap of China's ancient foreign trade and Cultural Exchange began in the era of Emperor Wu of the Han Dynasty. Only such a great era can bring up Zhang Qian, such a brave explorer, who opened up the silk road. And Wei Qing, Huo Qubing and other famous generals, with their outstanding martial arts, ensure the smooth flow of international business. To deliver Chinese designs and inventions to Europe. Before that, China's foreign trade and cultural export. However, a few brave individual explorations have since become a national cause protected and supported by a strong central government. Before that, China's trade with India and the western regions had to be transferred several times to reach the final consumers. Since then, China's direct trade with India and the western regions has grown vigorously. Through the Silk Road, we imported grapes, clovers, cucumbers, carrots, sweathorses, Buddhism and magic. At the same time, we continuously exported exquisite finished products such as silk and porcelain, which dazzled consumers from all over the world as far as the Qin Dynasty (Rome) .The export of trade also, drives cultural exchange.

In the current economic globalization environment, "design competitiveness" has become a powerful weapon for enterprises to enhance their own advantages. Successful design can promote sales, or ensure commercial interests, or enhance the company's brand image.According to the market economy, the adjustment of furniture design has become an important means for producers to obtain the initiative of market competition.Similarly, in the furniture industry, design has naturally become an important part of the competitive marketing strategy of an enterprise. The essence of furniture design is the marketing promotion and guidance carried out by enterprises around the product flow to consumers or users in order to obtain commercial profits. Furniture design is a design activity in the marketing environment. It is a design behavior based on the micro environment of the enterprise under the guidance of the macro environment of the enterprise. Furniture design serves for enterprise marketing. All activities of furniture design are carried out in the marketing environment. For every furniture enterprise, furniture design is to promote product sales to earn more profit value for the enterprise.

#### **Problem statement**

With the rapid development of China's economy and the integration of Chinese culture into the world, China's furniture design industry also has reference to new design elements. I put forward the question whether the "integration of Chinese and Western culture" can promote the innovation of furniture design concept. And whether the new design elements can drive and promote the promotion of furniture sales industry

#### **Research questions**

Can the integration of Chinese and Western culture promote the innovation of furniture design concept?

Does the new design element promote the sales of furniture industry?

#### Research objectives;

First of all, in our macro cognition, Chinese traditional culture has always had an indispensable impact on Chinese furniture. From five thousand years ago in Yanhuang and now in 2020, the furniture around us has been constantly changing with the growth of our culture and our knowledge reserve. We also need to keep up with cultural changes. From the time of Emperor Wu of Han Dynasty, China began to exchange with foreign countries, export culture and introduce culture. Extract its essence and discard its dross. It has always been the unswerving principle of cultural introduction in China. Therefore, before the Qing Dynasty, the integration of Chinese and Western elements was only a dining utensil in life. Zheng He of the Ming Dynasty, as well as the famous European Mr. Marco Polo, and four famous European voyages. The new "Silk Road" and "maritime Silk Road" have influenced the change of furniture design. As shown in the figure, it not only has the Chinese dragon chair structure but also has the European royal carving design in the Western Renaissance period. All of the above shows that "the integration of Chinese and Western culture" promotes the innovation of furniture design concept.

In the continuous innovation of furniture design. The new furniture also promotes people & apos s consumption, not in a certain limitation. So the innovative design concept has promoted the development of sales. A good design can promote the development of industrial sales.

#### Research meaning

This innovative design of the integration of Chinese and Western culture is an innovative theory of traditional and modern furniture and traditional furniture. The final goal of the design is to integrate Chinese and a Western culture to design more innovative furniture design works. It not only integrates Chinese culture but also western culture. Through on-the-spot investigation and literature search, the characteristics of Chinese and Western cultural communication are understood, practical problems are listed and sales volume of furniture market is discussed, so as to determine the most suitable design concept. And different innovative designs. The public & apos;s vision and application scope have greatly improved. Also for the future furniture design put forward new design ideas. It's not just cultural blending. Human body engineering, material selection and modeling innovation have better outstanding changes. Want more innovation needs more in-depth study of cultural heritage and furniture change. Also for the future furniture design put forward new design ideas.

Different and more personalized designs drive the promotion of furniture sales, and also open up a new direction for sales. Keywords: Chinese and Western culture; furniture design; innovation; economic impact; consumption;

By consulting the relevant literature, we know that the integration of Chinese and western traditional culture has been effective trade since the Han Dynasty. We bring economic gains in trade. At the same time, it also promotes the export and exchange of

culture. Chinese and Western design structure is closely related to Chinese and Western cultural background and social ideological trend. Chinese "harmony" thought has always dominated the cultural field. Therefore, China's furniture design has always adhered to the design concept of flowing peace, which has a profound impact on the later western design and provides guarantee for cultural integration. Effective guarantee can have better design ideas and design scheme. So as to promote the development of furniture design.

Throughout the birth and evolution of furniture in China, from the Qin and Han Dynasties to the Western Jin Dynasty, then to the song and Yuan Dynasties, until the peak of the Ming Dynasty, the form and material technology of furniture have achieved transformation, and the design structure has also changed. The integration of Chinese and Western design elements makes the difference style realize the upgrading of Chinese and Western furniture design in terms of modeling, color, material and so on, which is not only influenced by lifestyle, cultural level and other factors, but also closely related to political system, material resources and technological level [4]. From the perspective of consumers, furniture design is to provide a more comprehensive use function, more complete demand satisfaction and more advanced demand guidance. Furniture design is system engineering. The first is to adapt to the needs of the existing market, which is the fundamental starting point and destination of furniture design. Second, furniture design is not only limited to the needs of the existing market, but also to adapt to the needs of the potential market, which is the strong aftereffect of new product development. In the modern market economy, the quality of furniture design has become one of the key factors for the success or failure of enterprise marketing strategy. In the case of no obvious difference in technology, quality, function and other conditions, furniture design has become the key to determine the market competition. In Europe, America and Japan, the product design ability of furniture enterprises has risen to the height of productivity. Only when the product design ability reaches the leading level, can a furniture enterprise obtain greater marketing ability.





Furniture products should meet the potential needs the influence of Chinese furniture on western design.

In the long history of China, Ming Dynasty furniture has far-reaching artistic value, and has a far-reaching impact on the western furniture design culture. In Ming Dynasty furniture, the design structure of "three bent legs" is the earliest imitated Chinese design element. The most important feature of "three bent legs" design is the smooth shape and lines, which effectively shows the beauty of the design, structure, and has an important enlightenment for the minimalism style of western furniture. The article in western furniture is also strikingly similar to the article in Ming Dynasty design. It mainly relies on the unique mortise and tenon structure design in the process structure, which can meet the function and improve the overall form level. In the manufacturing process, the unified design can be formed without adding nails and glue. It should be noted that in the traditional Chinese design system, "Ming style chair" in Ming Dynasty is the peak in the design history, which has great inspiration for western design. Among them, Danish designers in northern Europe got aesthetic inspiration from it. In 1944, they designed the first chair and named it "Chinese chair". In later designs, they designed a series of chair forms with Chinese style as the theme.

It is through the inheritance of culture and design elements that Chinese design inspiration have realized cross-border transmission, and foreign countries have a deeper understanding of Chinese design. Under the background of increasing trade exchanges between China and the west, the integration of Western Rococo and Baroque styles with Chinese traditional design structure can effectively improve the efficiency of Chinese craftsmen in drawing design inspiration, and realize the innovation of furniture design on the basis of reform.

The influence of western furniture on Chinese design

The historical origin of drawing lessons from western design inspiration dates back to the Opium War. When the great powers entered China, some western furniture and modern design concepts also flowed into China. Among the basic materials of furniture, there were also a large number of imports of Pinus, cypress and oaks. China gradually began to accept some new things from the traditional closed state, making the furniture industry alsoStart looking for breakthroughs. In Europe at that time, the furniture style was based on the classical style and eclecticism. Therefore, the furniture design was more focused on Baroque, Rocco and neoclassical furniture styles. These novel designs and artistic structures gradually formed a market in China. After the western design elements enter the Chinese market, China's furniture design industry adopts two ways: the first is the combination of China and the West. The details of western design elements are applied to traditional design, adding the whole design structure and modeling of the chicness and novelty. Among them, the most famous is "modern furniture", which effectively combines the traditional technology and forms the collision and integration of Chinese and Western technology. There is also the

integration of Gothic spire design structure and traditional structure in China, creating a number of more unique and novel furniture structures. The second is completely westernized, which has almost become a copy of western furniture in terms of design structure and overall modeling [6]. Among them, the Renaissance furniture is more famous. It uses the semi column structure of spinning wood and the carving decoration with obvious symmetrical curve as the basic design elements, so the cabinet made has become an important furniture design structure flowing into the Chinese market. In addition, the popular styles of Louis 15 and Louis 16 of "French furniture" and the white wax and gold inlaid furniture of "Great Britain" in Victorian era also attracted the vast number of Chinese consumers with the style of luxury and atmosphere. And it's a symbol of identity.

In a word, we have learned that Chinese and Western cultures complement each other after we have looked up the data many times and explored the previous problems repeatedly. It has mutual influence and promotion. And put forward new design ideas and ideas for furniture design.

### Data analysis of existing furniture industry:

According to the statistics of the furniture industry data from 2018 to 2020, through the online statistics of the design scheme and the direction of purchasing furniture style of the owners of the new residential quarter after purchase, the survey coupon was designed. As shown in the figure:



According to this simple and intuitive survey, we have made a statistical capacity of 100 families. Although this capacity does not exactly represent the furniture trend of the whole market, it can intuitively show that different age groups, family economic conditions and interests of different professionals are different. Our final results are shown in the figure:



In the survey, we found that 10% of the enterprises choose high-end furniture. There are also some lawyers who like light and luxury furniture, accounting for 35%. Influenced by Chinese traditional culture, 85% of users will choose simple Chinese style. So different working environment and different income affect the sales direction of furniture. And with the changes of the times and the new development of the times, we can find out the development direction of each stage and the theoretical points of development and innovation by consulting relevant materials. They are all changing. Good innovative furniture design innovation point will make different people have more points in the choice, have more choice direction. Therefore, furniture design serves for the marketing strategy of the enterprise. Only when the enterprise understands the consumers and the market trend, can it make the furniture design suitable for the marketing strategy. On the other hand, furniture design is for enterprises to implement marketing plans. Furniture, as the concrete embodiment of the corporate image, is a kind of cultural belief and value interpretation. It is an important group of market management activities for the enterprise to gather strength and lead the direction of consumption. Furniture as a direct communication carrier for enterprises to face the market, a furniture with distinctive characteristics is conducive to expanding the product image and corporate image, which can not only consolidate the market share, but also open up a new demand market for enterprises.

### **CONCLUSION**

Through the writing of the article, as well as the investigation and research around us, different regional cultures, different cultural environments, as well as different ethnic differences, as well as different incomes have different influences on our furniture design. There are different diversities in the furniture design. Look for the differences and the same from the diversities. Extract its essence and discard its dross. Let the excellent Chinese and Western culture blend. Let the innovation of furniture design drive the development of furniture industry sales in different directions. In the basis of different analysis and analysis of Chinese and Western furniture design, there is an innovative direction in traditional furniture design principles and modern furniture decoration design. In line with the development of the times and design progress, the design work can not be followed by the public, but after the continuous design ideas, it is further processed to achieve the inheritance of excellent civilization and culture. Combined with traditional design elements, Design excellent furniture structure, drive sales innovation and development, and promote the overall

progress of the international furniture market. The design structure of China and the west is closely related to the cultural background and social ideological trend of China and the West. China's "harmony" thought has always dominated the cultural field. Therefore, China's furniture design has always adhered to the concept of flowing and peaceful design, which has a profound impact on the later Western design and provides guarantee for cultural integration, In the context of the continuous development of human civilization, China has gradually changed from sitting on the ground to sitting on the feet, and the types of furniture and design process have also changed. The overall structure and modeling design system also have their own unique advantages, especially in modeling, they pay more attention to the rationality of function and the diversity of style and structure, which can not highlight the sense of art, but also fully fit the physiological characteristics of the human body. In addition to the characteristics of the material itself, they realize the effective integration of the beauty of elegance and practical beauty, and also complete the combination of art and life. With the development of economic globalization, the consumption ability of furniture has been gradually improved. It is found that our demand has also been greatly improved and greatly innovated. The innovation of economic development in any country comes from different economic culture and different performance in different regions. As a furniture designer, we have a good innovation to change our outlook There is a new market and new elements for better furniture development. The new direction of furniture design and the development of furniture design concept. Under the new economy, we will have better principles of new design. There is innovation for the design direction, and there are more sales directions under the innovation.

All in all, each innovation brings different sales, as well as better design ideas, cultural integration let us learn from each other.

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#### RESEARCH ON SMART CITY CONSTRUCTION

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#### **ABSTRACT**

With the continuous development of information technology, the application level of urban informatization has been continuously improved, and the construction of smart cities has emerged. Building a smart city is of great significance in achieving sustainable urban development, leading the application of information technology, and enhancing the city's overall competitivenes. Smart city application systems mainly include smart logistics system, smart manufacturing system, smart trading system, smart energy application system, smart public service, smart social management system, smart transportation system, smart health protection system, smart settlement service system, and smart cultural service system. This article focuses on studying the public service system, social service system, transportation system and cultural education system of China's larger cities, summarizing the main achievements and existing problems in the construction of smart cities, and analyzing the 5G era brought to the construction of smart cities New requirements and new challenges, especially the image of big data to the social management system, give some opinions and suggestions through model analysis.

**Keywords:** Smart Society Management (SSM), Smart Public Service (SPS), Smart Transportation(ST), Cultural Services(CS),

#### **INTRODUCTION**

With the continuous development of information technology, the application level of urban informatization has been continuously improved, and the construction of smart cities has emerged. Building a smart city is of great significance in achieving sustainable urban development, leading the application of information technology, and enhancing the city's overall competitiveness. Smart city application systems mainly include smart logistics system, smart manufacturing system, smart trading system, smart energy application system, smart public service, smart social management system, smart transportation system, smart health protection system, smart settlement service system, and smart cultural service system. This article focuses on the characteristics of smart cities, analyzes the problems that arise in the construction of smart cities, and analyzes the causes of the problems. Finally, the article give some opinions and suggestions through model analysis.

#### 1. Current status of international smart city construction

At present, ten cities in the world have made outstanding achievements in the construction of smart cities, especially in the application of big data. They have their own main construction features. Dubuque is the first smart city in the United States and the world's first smart city. It is characterized by its emphasis on intelligent construction. New York Through data mining, fires were effectively prevented. Chicago Carry out urban data mining by "installing sensors on street light poles". Seattle Use data to save electricity and

energy. The city collaborated with Microsoft and Accenture on a pilot project to reduce energy use in the area. London. Use data to manage traffic. Gloucester also made full use of sensors and established a "smart house" pilot. Amsterdam is one of the first cities in the world to start the construction of smart cities, and it is also a model of European smart city construction. In Stockholm, Excellent results have been achieved in the management of traffic congestion. Known as the 'City of Bicycles', Copenhagen has made outstanding achievements in green transportation. Researchers from Lyon and IBM have teamed up to build a system that can help reduce road traffic congestion, using real-time traffic reports to detect and predict traffic congestion.

#### 2. Basic characteristics of smart cities

### 2.1 Comprehensive monitoring perception<sup>1</sup>

With the development of information technology today, we have been able to deploy a variety of sensors in all aspects of the city through the construction of smart city projects, so as to realize the automatic collection of ubiquitous information, and then according to the needs of city management, we can Information data is analyzed and processed to provide a data reference for the decision of city managers, and even replace the decision of city managers. It can be said that the emergence of sensors and the maturity of their technology have enabled us to record all aspects of urban life on a large scale and achieve comprehensive monitoring and perception of urban information.

### 2.2 Systematic collaborative sharing

Based on the comprehensive monitoring and perception of the city, smart cities need to integrate and analyze massive amounts of data and information. This information often belongs to different smart city projects across departments, industries, and even regions. This makes the relationship between governments, enterprises, residents and other urban life participants Redefined, from a one-way management and managed mode to a new multi-dimensional collaborative sharing mode. The city's governance structure will also shift from "layering" to "networking". The government is responsible for providing policy support for collaboration and sharing among different systems to achieve "crowdsourcing, wisdom, and creativity" so that the public can solve public problems and "share The era of governance" is coming.

#### 2.3 Information interconnection

With the maturity and vigorous development of the Internet of Things and the Internet, we have a new way of storing information: a web server, which means that all kinds of information are available at any time, and the spread, copy, and integration of information are more convenient. The same data can be quickly circulated and reused on different servers; different data can be integrated with each other to generate new utility. The cost of saving, sharing, and mining information data is getting lower and lower, and the cost for city managers to obtain various types of information data has also decreased. This has led to the "data opening" movement in the public in recent years, which has led to the development of smart cities. Class information data has a foundation for interconnection.

### 2.4 Innovative development of technology

The highest source of wisdom in a city is the people living in the city, and citizens are the mobile, best and smartest sensors. Smart cities use information technology with the Internet as the core. Large-scale and large-scale personal information can be freely circulated on the same system platform. Dispersed information and data can be effectively aggregated in a very short time. Everyone contributes a little data. Big data can restore the truth of the event, which is unprecedented in human history. 'Big data'is the most valuable innovation of this era, and the advent of the 'big data'era has contributed to smart cities.

#### 2.5 Optimization and upgrading of services

The government used to be the only governance center of the whole society, but with the development of smart cities, more public services will be transferred to society. Countless urban residents will become micro-governance centers all over the city, as the government's assistants to help deal with various issues in public affairs, the cost of various services in public life will be lower, and the quality of services will be greatly improved, even great value for money. People's individual needs will be met more timely, economically and more comprehensively, and the needs of the whole society will have faster and better solutions, which will provide city managers with more efficient and efficient solutions to various "urban diseases" Ideas.

#### 3. Existing problems and cause analysis

At present, the main problems in the construction of China's smart city are as follows:

# 3.1 Inherent deficiency of planning and design

The problems of planning and designs in smart cities are mainly manifested in the following three aspects:

One is that the design plan is not detailed enough. Take the Zhengzhou "Tianyan" project as an example. During the construction of the project, due to the lack of clear details in the design plan, the construction unit needs to deal with it according to the actual situation, making the surveillance cameras vulnerable to time, weather and surrounding environment. Three of the negative effects of external factors are obvious: one is the blind spot of the surveillance camera due to the installation angle, improper height or changes in the surrounding environment; the other is that the comprehensive performance of the surveillance camera planned and designed in the early stage is not High, especially low pixels, resulting in the use of the effect cannot keep up with the actual needs; third, early part of the electronic police, bayonet camera design did not fully consider the night fill light, resulting in poor night use effect, so that the night part has not yet been constructed The remote sections of street lights have become blind spots for monitoring.

Second, the regional development is not balanced. On the one hand, Zhengzhou Airport Experimental Zone is divided into the airport core area, the northern city comprehensive service area, the eastern port-type trade show and trading area, and the southern manufacturing cluster area according to the regional strategic positioning. Due to the rapid development of the core area and the northern area, the flow of people is large and the infrastructure is complete. The eastern and southern districts are under construction and development, and the flow of people is small. The construction of video surveillance is difficult, resulting in a very unbalanced planning of the video surveillance system, showing that there are more in the central part of the north and less in the southeast. On the other hand, public places with high traffic such as shopping malls, stations, schools, and hospitals have completed the full coverage of video surveillance, while some remote roads, culverts, construction sites and other hidden danger areas with low traffic and easy crime have become video surveillance the vacuum zone of Skynet. The construction of video surveillance in remote villages that have not been demolished is even weaker. Only a small number of surveillance cameras are built at the main road crossings in and out of the village. The online rate is extremely low due to factors such as man-made damage and untimely maintenance. Once a crime occurs, it will be this brings great inconvenience to investigators in obtaining criminal evidence.

Third, the equipment selection is not clear enough. In the completed projects, due to the competitive relationship between the major equipment manufacturers, there are technical barriers such as different codes and different signaling between these products. This technical barrier will not affect the realization of basic functions, but there will be many incompatibilities in the application of deep mining and analysis of later video image data.

# 3.2 The problem of information islands is serious

In today's society, the open sharing of data is an important channel for the people to understand the country, society, and government. However, since China has not yet formed a unified standard system for open sharing of data, the popularization of data culture is relatively weak, and the work of open sharing of data is still in progress. The exploratory stage has caused China's data openness and sharing to lag far behind other world powers. Data is the basis for the government to govern the country's decision-making. Decisionmaking without data is tantamount to talking on paper. The construction of smart city projects is to better obtain, analyze, and apply data. Data is the most important resource for smart city projects. At present, various functional departments of the government are vigorously building their own smart city projects, but few departments can coordinate the information and data needs of other functional departments and plan in advance the information interconnection between projects. This "sweeping before the door" thinking mode has caused a relatively common waste of resources in the field of smart city project construction, which in turn caused repeated monitoring and collection of data, and formed unconnected "information islands". This not only fails to meet the people's increasingly urgent data use needs, but also seriously affects the efficiency of the government.

# 3.3 Data mining needs to be strengthened

At present, the world has entered the era of big data. The size of big data lies not only in its capacity, but also in its value. There are many reasons for the advent of the era of big data, the most fundamental of which is that humans have made considerable progress in the ability to use data knowledge, and this progress is mainly manifested in the mining of data value. Before discussing the mining of data value, we need to clarify two concepts, namely structured data and unstructured data: structured data, also called row data, is data that uses a two-dimensional table structure for log'cal realization and expression. It has strict The data 'length and format specification are managed and stored through relational databases; unstructured data is data with incomplete and irregular data structures, inconvenient to use two-dimensional logical tables of the database, and data without predefined data models, such as pictures, Text, audio, video, image, etc. In today's big data explosion, about three-quarters of the world's data is unstructured data. The processing of structured data is relatively simple, and its value is easy to find; the processing of unstructured data is more complicated. To discover the value, the current main processing method is to convert them into traditional structured data. It is to use data mining technology. Data mining refers to the use of specific algorithms for automatic analysis of large quantities of data, through analysis to find trends and laws hidden in large amounts of data, that is, to find new knowledge from large amounts of data. However, there are many types of unstructured data, and it is not easy to find the value of data in it. It requires the continuous development of data mining technology, and constantly innovates more intelligent data analysis algorithms, so that data analysis software is constantly updated, upgraded and improved.

#### 3.4 Large gap in talent support

With the rapid development of the smart city industry, the government's governance philosophy and management model have also undergone great changes. The governance philosophy has gradually changed from a policy-oriented governance to a service centered on intelligence, digitization, and humanization. The management model gradually, decentralized management with a clear division of labor between various functional departments has become integrated and centralized management. In today's era of extremely rapid knowledge updates, this change in governance concepts and management models cannot be separated from the support of talents. Only the continuous learning and innovation of people can satisfy

the rapidly developing smart city industry. However, according to survey data from the National School of Administration, about 20% of civil servants in my country have not yet mastered the basic operations of computers, and there is a huge gap in the field of government information. Talent support is a very important link in the process of building a smart city system. Smart city projects cannot do without the support of big data technology, and the monitoring, collection, mining, analysis, and sorting of big data require the investment of talents in the information field. However, the government's information management department is difficult to retain talents in the increasingly fierce market-oriented industry competition due to low salary, limited development space, and slow knowledge update. Most of the information field talents prefer to choose high salary and development space. Large and easy-to-access technology-based enterprises seek development.

#### 3.5 The operation and maintenance system needs to be improved

As more and more smart city projects are completed and put into use, many outdoor sensors have been damaged to varying degrees due to the sun, wind, rain, man-made damage, line damage and other reasons. The project construction unit emphasizes construction and neglects maintenance. The problem has gradually emerged, which has seriously affected the normal use of smart city projects. Take the Smart Sky Eye Project and Smart City Management Project in Zhengzhou Airport Experimental Zone as examples. In 2017, the monthly average online rates of outdoor sensing equipment of the two projects were 83% and 89%, respectively, which did not exceed 90%. The Smart Sky Eye project even had some problems. The damage of the main optical cable causes the daily online rate to be less than 50%. It can be seen that outdoor sensing equipment built in public areas can easily be destroyed due to natural or man-made reasons, and cannot do without routine inspections and maintenance. Throughout the field of smart city project construction, the normal operation of the project is inseparable from the maintenance of equipment, software upgrades, and the guidance of professional and technical personnel, and other post-guaranteed work. For smart city projects to take effect, a sound operation and maintenance system is essential.

# **4.** Solutions to problems in the construction of smart cities

The countermeasures to solve the problems of smart city construction mainly have the following aspects.

#### 4.1 Establish a comprehensive planning concept

In order for the construction of smart cities to be carried out effectively, it is necessary to plan in an all-round way, attach great importance to the top-level design of urban development, actively promote the implementation of projects, integrate people's production and life with local urban characteristics, and extensively use big data Information technology is applied. In the process of building a smart city, continuously improve the operation plan and fund raising work. The process of smart city construction usually takes a long time and spans many departments and industries. The construction must be carried out in stages. In this process, a professional smart city construction system must be constructed and the operations of various departments must be actively coordinated and unified. The situations, the implementation of management work in all directions, so that a unified information platform can guarantee. Scientifically manage, coordinate the overall construction of smart cities in an all-round way, understand the laws and regulations of the opponent, give more encouragement and support to urban residents, and improve the life satisfaction of urban residents. This is also the current state of big data. Significance in the process of program development.

#### 4.2 Pay attention to information innovation

In the process of smart city construction, we must pay attention to the sharing of information and resources to ensure the interconnection of data. Therefore, we must effectively plan the information database, compile the information catalog, and make the smart city big data sharing mechanism perfect and coordinated by the government. Arrangements to effectively improve management rights and resource utilization. From the perspective of small and medium-sized cities, a comprehensive cloud platform must be established to ensure the centralized management of big data information and prevent resource waste, etc., in the construction of smart cities In the process, we must pay attention to the innovation and training of data, and the data awareness of relevant personnel. Managers must pay attention to accelerate the development of big data. Through advanced tools, the data can be effectively integrated, so that the decision-making ability of managers can be improved, and the city. The improvement of construction service level.

# 4.3 Building smart public services

In the current society, the construction of smart public services means strengthening the construction of some professional application systems such as medical treatment and housing, and then building a complete urban management system to improve the level of intelligence and precision of urban management, which can effectively improve The sharing of various public resources in the city promotes the efficient operation of information flow and capital flow in the city. In this way, the development of the city can be promoted on the basis of improving the efficiency and public level of the city.

#### 4.4 Build a smart environment

Nowadays, in the context of vigorous development of the market economy, people's living standards are constantly improving, and the quality requirements for the living environment are gradually increasing. The construction of a smart environment is also part of the smart city solution. In the actual situation, implementing green city planning, with the help of relevant information technology, can comprehensively understand and analyze the distribution of urban public space, greening, etc., so as to effectively manage and utilize various resources and improve the utilization of various resources Efficiency and improve the sustainability of the urban environment.

The construction of smart cities has gone through three different historical development stages and has achieved some achievements. However, at the same time, we cannot avoid a series of problems in this process. We must actively respond to it and firmly believe that the development path is tortuous, but the future for development is bright. Through the coordination and cooperation of all forces and overall arrangements, scientifically promote the in-depth development of smart cities.

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# RESEARCH ON THE PATH OF THE "SUPPLY SIDE REFORM" OF SPORTS SERVICE INDUSTRY BY THE ERA OF DIGITALIZATION AND GLOBALIZATION

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#### **ABSTRACT**

In the economic development of the country to enter the growth shift, structural optimization and innovation driven environment, the development of the sports industry is facing the contradiction between the demand rise and the effective supply shortage. In this paper, the analysis based on the relationship of supply side reforms and sports industry development, summed up the sports industry the necessity and feasibility of supply side reforms, points out the problems existed in the sports industry supply situation and reform, think of supply side reforms is to solve the development of the sports industry need not matching and supply and demand mismatch problem for an important measure, and puts forward the countermeasures and path of sports industry supply side reforms to promote.

Keywords: Sports industry; supply side; digitalization; globalization; reform

#### INTRODUCTION

In 2015, the Central Financial and Economic Leading Group meeting was held. Xi Jinping first mentioned "supply-side structural reform" at the meeting, and emphasized "cultivating and forming new supply power" at the State Council executive meeting the next day. In the formulation of the "Thirteenth Five-Year Plan", Premier Li Keqiang also put forward that "efforts should be made on both the supply side and the demand side to promote the industry towards the middle and high end", and "supply-side reform" became a hot word in the political field. The supply-side reform aims to solve the mismatch between the upgrading demand of Chinese consumption and the failure of Chinese manufacturing to keep pace with the times, and this mismatch between supply and demand and the contradiction caused by the mismatch also exist widely in the sports industry. At present, there is a great demand in the industry, but there is also a contradiction that the supply cannot meet the demand. Both competitive sports performance industry and fitness and leisure industry have short supply. Therefore, it is urgent and necessary to carry out "supply-side reform" in the field of sports industry.

# 1.1 Policy Interpretation of Supply-side Reform and Reform Ideas of Sports Service Industry.

"Supply-side reform" refers to starting from supply and production, constantly liberating productivity and enhancing competitiveness to promote economic development []. It is emphasized that through the adjustment of economic structure, the optimal allocation of factors can be realized, and the quality and quantity of economic growth can be improved. As we all know, the "troika" of investment, export and consumption on the demand side affects the short-term economic growth rate and promotes economic growth by stimulating social demand. On the other hand, the supply side, which consists of land, labor, capital and

innovation, determines the medium and long-term potential economic growth rate and promotes economic growth by improving productivity. At present, there is an obvious mismatch between supply and demand in domestic economic development. The frequent looting of toilet seats and milk powder by Chinese tourists abroad is just a manifestation that the domestic supply cannot meet the demand. In the past, it was necessary to stimulate demand due to insufficient consumption power, but now there is consumption power, and the supply of products cannot meet the demand, which leads to the decrease of customers' purchasing behavior. Therefore, the essence of the problem is no longer the lack of demand, but the mismatch between supply and demand [].Reform can no longer focus on expanding domestic demand and stimulating consumption on the demand side. Instead, it should start from the supply side, promote supply-side reform by improving productivity and commodity supply quality, and transform stimulating demand into providing stable medium-and long-term supply, and realize the "troika". The transformation to the "four major elements"

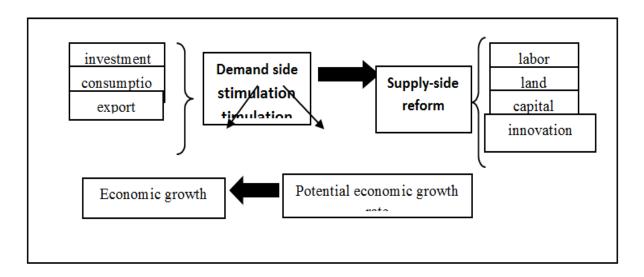


Fig .1 "Troika" on the demand side and "Four Elements" on the supply side

The reasons for the supply-side reform of sports industry: the mismatch between supply and demand in the economic field and the mismatch between supply and demand also exist in sports industry. The extensive development model of China's sports industry for a long time makes sports enterprises pay too much attention to the expansion of scale, while ignoring the development of connotation. This problem of rapid extension and backward connotation development leads to excessive ineffective supply of sports products and insufficient effective supply, resulting in "dislocation between supply and demand". Eventually, it leads to the strange phenomenon that "a large number of sports products are oversupplied in the market, but people's sports consumption demand cannot be met". Although the total supply scale of sports industry far exceeds the total demand, most of these supplies are low-level and inefficient. Therefore, the sports industry must change its development concept and recognize that the important factor affecting the development of the industry at present is not insufficient demand, but excessive ineffective supply and insufficient effective supply [].

It is necessary to reform the supply side of sports industry. On the one hand, because the supply side of sports in China is government departments and public welfare organizations, it cannot respond to the mass sports demand in time. On the other hand, with the improvement of national economic income and living standard, China will upgrade from survival consumption to development consumption, and the consumption of watching and participating sports by the masses will increase. New consumers and consumption concepts give birth to new consumption demands, so new supply is urgently needed to satisfy them. In addition, it is feasible to carry out supply-side reform of sports industry. First, the guiding ideology of sports industry development has changed from traditional public service undertakings and gold medal strategy to a commercial industry that stimulates consumption. Secondly, great changes have taken place in the overall development environment of sports industry. Policy support, market-oriented openness, capital attention and emerging consumer demand are obviously different from those before. Finally, as an area rarely involved in the past 30 years of reform and opening-up, its reform space is huge, it is not easy to be blocked by stakeholders, and its reform resistance is small, which is conducive to incremental reform and gradual realization of de-administration, and guides the reform of sports industry from government-led to market-led. Therefore, the sports industry will also become the fastest and most thorough industry in the supply-side reform.

# 1.2 Analysis on the Present Situation and Existing Problems of Sports Service Industry Supply.

In 2015, "Several Opinions on Accelerating the Development of Sports Industry to Promote Sports Consumption" was issued. As a sunrise industry, sports industry was nurtured and supported by the state and became a new growth point of the national economy. In order to scientifically define its statistical scope, the Statistics Bureau defined it as "the activity of providing sports products and services to the public and the collection of activities related to such activities" in the National Statistical Classification of Sports Industry, and divided it into 11 categories, namely: sports management activities, sports competition performance activities, sports fitness and leisure activities, stadium services, and other sports-related services. []. This paper mainly analyzes the four most focused categories, which are sports competition performance activities, sports fitness and leisure activities, stadium services, sporting goods and related product manufacturing.

According to the experience of developed countries, when the per capita GDP exceeds 5,000 US dollars, the fitness market and outdoor sports market will usher in explosive growth; When GDP per capita rises to 8,000 US dollars, the fitness industry will become the national pillar industry. In 2011, China's per capita GDP exceeded \$5,000, which made the consumption of national fitness and outdoor sports enter a rapid development stage. The increase of GDP per capita also makes people have the conditions to choose more fashionable and challenging sports, which brings about an increase in sports and entertainment consumption demand, which needs new supply to meet. However, from the current supply situation of the sports industry, it can not fully meet the growing sports and entertainment needs of the masses, mainly reflected in the following aspects:

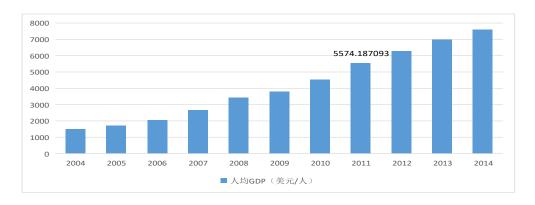


Fig. 2 Change chart of China's per capita GDP from 2004 to 2014

Data source: China's GDP (current US dollar) value and total population value from 2004 to 2014 in World Bank database

# 2.1 Competitive sports performance activities: the supply of high-quality events is seriously insufficient.

The quality of products supplied by sports industry will directly affect the total effective supply of the industry. Taking the products provided by competitive performance industry as an example, athletes, venues, equipment and facilities, and sports marketing are the core production factors of sports events. These core factors are packaged and developed by marketing means to form event products, which are provided to the audience through media communication, thus forming a supply chain. But at present, the biggest problem in this supply chain is that the supplied sports events can not meet the people's viewing needs, and on the one hand, it shows the oversupply of low-quality and low-level event content. In 2015, a total of 134 marathons were held nationwide, with many times and huge capital investment, but the quality of events was far inferior to that of developed countries, and there were few influential brand events. Of the 71 gold, silver and bronze marathon events in the

world, China only accounts for 5. On the other hand, it shows a serious shortage of high-quality and high-level events. At present, foreign competitions not only have a very high mass base, but also have a very high value of off-court star effect and derivatives, which are highly sought after by the public and capitalists because of their fierce competition and strong appreciation. Although there are many competitions in China such as Super League and CBA, there is a certain gap between China and foreign countries in both competitive and ornamental. At present, many high-quality competition resources in China are still in the hands of the administrative departments, and the competition is obviously in short supply. Taking marathon events as an example, since Document No.46 of the State Council was issued in 2014 and the examination and approval of the events was cancelled, the number of marathon events registered nationwide in 2015 has doubled that of last year. Between 2011 and 2015, the number of marathon races held increased from 22 to 134, with an average

annual growth rate of 57% [], However, compared with the number of more than 1100 events in the United States every year, the supply of domestic events is obviously insufficient. Oversupply of low-quality events and insufficient supply of high-quality events eventually lead to the overall supply shortage in competitive performance activities.

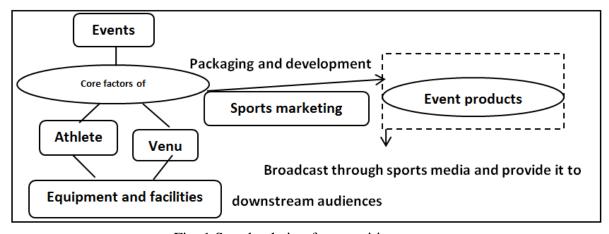


Fig .1 Supply chain of competitive sports

# 2.2 Physical fitness and leisure activities: there is a mismatch between supply and demand between product services and demand objects.

In addition to the shortage of supply, sports industry also faces the problem of mismatch between supply and demand. In the sports fitness and leisure activities industry, the products and services provided are not matched with the fitness needs of the masses. Taking the national fitness path as an example, it is very popular all over the country, but its purpose is to meet the fitness needs of retired elderly people, and this fitness path does not match the fitness needs of the community people mainly including office workers and young and middle-aged people. Therefore, the construction of indoor and outdoor infrastructurecommunity sports center [], which can satisfy people's participation in fitness, has become a key measure to meet the different fitness needs of various groups. In the 1980s, Britain formulated standards and clearly stipulated that a community sports center should be built for every 25,000 people. At the end of 1990s, there were as many as 220,000 sports facilities built around communities in Japan. However, due to the influence of the traditional concept of "gold medal first", the construction mode of "one project and two museums" is mostly adopted in China. Although this model can serve competitive sports well, it can't meet the needs of mass fitness. Often focus on building venues that can meet the needs of large-scale events and sports team training, while ignoring the construction of community sports facilities. This directly leads to the insufficient supply of community infrastructure and the mismatch between the fitness needs of the community masses and the existing facilities. This mismatch between supply and demand also exists in rural areas. At present, basketball, table tennis, gateball and chess room are the main sports venues in rural areas. However, as the largest group of national sports activities, affected by time, income and the concept of "labor is sports", farmers have little demand for public sports venues, but only prefer traditional national sports with strong entertainment, and sports are often carried out as holiday celebrations. Therefore, basketball and table tennis venues are not suitable for rural areas, and the "unified" project construction (farmers' fitness project) cannot meet the sports needs of most farmers.

# 2.3 Sports venue service: insufficient effective supply of sports infrastructure.

With the issuance of Document No.46 of the State Council, policies such as simplifying administration and decentralizing power and canceling the examination and approval of competitions have been introduced one after another, which has promoted the explosive growth of commercial and mass competitions. The increasing number of sports events and the rising demand for mass sports further aggravate the rising demand for venues. However, the existing stadiums and gymnasiums can't meet the needs of competitive performances in terms of quality, and they can't meet the needs of national fitness in terms of quantity. On the one hand, they are lack of venues and venues. According to the data of the 6th general survey of sports venues, there were 1,694,600 sports venues in China in 2013, which can be estimated from the total population of 1,361 million. The average number of venues occupied per 10,000 people was 12.45, while the average area occupied by each person was only 1.46 square meters [].On the other hand, the idle and low utilization rate of the built venues and venues. Comprehensive and large-scale venues are generally faced with the problems of low utilization rate and difficulty in improving efficiency due to the lack of market-oriented operation, mature professional events as venue content support, the lack of fitness habits of users' venues and the single functional design of venues. Compared with comprehensive and large-scale venues, the low utilization rate of school sports venues is caused by the fact that the venues are not open to the outside world. In China, there are as many as 660,500 venues managed by the education system, accounting for 53.01% of the total venues in China. As the nearest and most suitable venue for the masses, its opening rate is less than one-third []. If the "bottleneck" of the opening of university venues is not solved, the "last mile" of products and demand cannot be connected. However, the insufficient supply of sports infrastructure such as venues will directly lead to the difficulty of landing sports events and the shortage of supply, and indirectly lead to the unsatisfied demand of the masses to participate in and watch sports events.

Table 1 Number and area of sports venues in each system

System type	Number of venues (10,000)	Proportion of quantity (%)	Site area (100 million square	Area ratio (%)
			meters)	
Total	169.46	100.00	19.92	100.00
Sports system	2.43	1.43	0.95	4.79
Education	66.05	38.98	10.56	53.01
system	4.97	2.94	0.82	4.15
: Colleges	58.49	34.51	9.29	46.61
Primary and				
secondary school	2.59	1.53	0.45	2.25
Other				
educational	5.22	3.08	0.43	2.17
system units	95.76	56.51	7.98	40.03
Military system				
Other systems				

Source: Data Bulletin of the Sixth National Sports Ground Census

# 2.4 Sports goods and related products manufacturing services: sports products are invalid and oversupply.

The overall scale of China's sports industry is limited due to the insufficient development of the core industries, fitness and leisure industry and competitive performance industry. At present, although the manufacturing of sporting goods and related products accounts for a large proportion in the sports industry structure, the industry is also facing the problem of invalid oversupply, which is reflected in the invalid oversupply caused by homogeneous products. The absence of government and industry functions leads to the serious phenomenon of low-level repeated construction of sporting goods. The traditional "processing with supplied materials and OEM production mode" established by Chinese sporting goods enterprises relying on cheap labor leads to the lag of R&D technology, less difference and serious homogenization of products produced. In addition, the brand positioning is unclear, lack of personality, single promotion form and other issues, so that the industry failed to form a unique brand. The market demand can not be accurately positioned, and the supplied products can not meet the needs of the masses, resulting in a large inventory backlog and ineffective supply of products. On the other hand, the appearance of fake and inferior products also leads to the surplus of ineffective supply of products. Lack of market system construction and imperfect supervision have led to the emergence of a large number of inferior counterfeit sporting goods. These products can meet the needs of consumers in the "survival stage" at the early stage of reform and opening up, but cannot meet the needs of consumers in the "development stage". In the survival stage, because of the low income level, consumers have low requirements on product quality and brand, so these products can occupy a place in the market. However, with the improvement of residents' income level and the upgrading of consumption structure, the market share of these products gradually shrinks and disappears, and the surplus products that are too late to be cleared become ineffective supply. At present, with the rising labor costs and raw material prices, the overall growth rate of the industry slows down. Large enterprises can control costs through management, while small enterprises can only rely on compressed manpower. To realize the transformation and upgrading of the industry, we should clean up the excess capacity from the production side, optimize the industrial structure, further strengthen the high-quality supply, reduce the ineffective supply and expand the effective supply.

# 3. Supply Governance Path of Sports Service Industry.

As an important part of sports industry, these industries are a reflection of the development of the whole industry, and their existing problems are just the shortcomings of the development of the whole industry. The problems existing in these industries can be summarized as four supply problems: labor, land, capital and innovation, which are in line with the "four major elements" advocated by the supply-side reform. Therefore, the supply-side reform of sports industry should focus on the supply problems in these areas and put forward corresponding measures.

# 3.1 Excavate talent bonus and optimize the effective supply of labor force in sporting goods industry.

The manufacturing industry of sporting goods and related products relies on the advantage of cheap labor to form the "OEM production" mode, which usually relies on saving costs and lowering prices to win over customers, often investing too little in R&D and design, and copying design concepts by imitating foreign brands in product design, resulting in the lack of core technology and serious homogenization of products. Excessive imitation and reproduction also led to the emergence of a large number of fake and inferior products, which eventually led to the surplus of invalid supply of sports products. Therefore, in order to realize the transformation and upgrading of the industry, it is necessary to change the traditional development mode of relying on the "demographic dividend" and release the "talent dividend" to the maximum extent.

First of all, enterprises should attach importance to the role of human capital in industrial optimization and upgrading, change their concepts by relying on investment in education and science and technology, and promote the cultivation of enterprise innovation consciousness and the improvement of workers' quality. On this basis, improve the extensive development mode in the past. By improving labor productivity, eliminating backward production capacity and optimizing industrial structure, the ineffective supply of products will be reduced finally. Secondly, enterprises should strengthen investment in training and train a group of brand designers with innovative consciousness by strengthening the training of high-tech talents. Through the accurate positioning of the market and the sales target, we can develop unique services and products to meet the individualized needs of the market and avoid homogenization of products. Finally, we should strengthen cooperation with relevant universities and scientific research institutions to create an integrated talent training of "production-study-research". By training a group of enterprise management talents with industry management experience, professional sporting goods marketing talents who can explore the international market, and high-quality innovative talents with R&D and design capabilities, we can design, produce and sell products in a targeted manner, and build and cultivate competitive brands. By strengthening brand awareness, we can continuously improve supply quality and supply efficiency to stimulate consumer demand and avoid overstocking and overcapacity of products.

# 3.2 Promote the innovation of venue opening rate and operation mode, and solve the problem of venue supply in venue service industry.

Under the background of the upsurge of fitness for all, the demand of people to use stadiums for fitness is rising, and the shortage of sports facilities such as stadiums and gymnasiums has gradually become a hot topic. To solve the problem of venue supply in venue service industry, measures should be taken from two aspects: promoting the reform of venue operation management and opening to the outside world. First of all, we should standardize the contents and methods of operation and management of various sports venues belonging to the sports system, and promote the combination of public welfare benefits and economic benefits. By clearly defining the scope and standards of subsidies for free and low-cost opening of large stadiums and gymnasiums, determining the application and approval process, the management and use methods of stadiums, improving the supervision and inspection and performance evaluation mechanism, etc., by subsidizing all free and low-cost open stadiums and gymnasiums in China, we can promote the opening of large stadiums and gymnasiums in the education system. Secondly, by exempting some stadiums and gymnasiums from property tax and land use tax to stimulate the opening of school stadiums and gymnasiums, schools can make full use of holidays and spare time to open stadiums and gymnasiums without affecting normal teaching activities, so as to improve the utilization rate and reduce the idleness of venues and facilities.

In addition to promoting the opening of venues and facilities in the education system, accelerating the innovation of venue operation mode is also a means to solve the shortage of infrastructure supply. We should revitalize the existing resources of venues, speed up the innovation of venue operation management, and focus on solving the problems of operation management and idleness of large-scale venues. Promote the development of ROT (Transformation-Operation-Handover) mode of stadiums and gymnasiums. The operation of stadiums and gymnasiums should develop towards marketization. Therefore, the upgrading of stadiums and gymnasiums has become a necessary prerequisite. Whether it is the Men's Basketball World Cup in 2019 or the Winter Olympics and Asian Games in 2022, the holding of this series of international large-scale events will stimulate the demand for high-level stadiums and gymnasiums. The reform of stadiums and gymnasiums should focus on two main lines: hardware upgrade and software innovation, and hardware upgrade will bear the brunt, including the explosive growth of lighting display system, venue facilities, security system, environmental protection and energy saving, while software innovation should take informationization and venue intelligence as breakthrough points.

# 3.3 Actively introduce capital to improve the effective supply of high-quality events in competitive performance industry.

In the holding of sports events, capital investment is very important. At present, there are a lot of events held in China, but not many can really meet the needs of mass sports. Compared with the four major professional sports leagues in North America, the development of sports events in China is obviously far behind, and neither box office nor investment can achieve equal results. Therefore, if the industry wants to develop, it must constantly improve the influence and value of local events, create high-quality and high-level events through the introduction of capital, and further revitalize the sports event market. From the perspective of supply side, domestic sports events such as Super League and CBA can attract consumers' attention and favor only by improving their own level, and only after the popularity of events rises can capitalists pay attention to them, so that investors can see business opportunities and opportunities from them, and increase their investment in domestic and local events driven by interests, thus giving the event parties more opportunities to improve the events, improve their viewing level and enter a virtuous circle of event development.

Taking China's sports industry market in 2015 as an example, China's professional sports events have undergone new changes. According to the data released by World Football, in the attendance ranking of the World Football League in 2015, the Super League ranked sixth in the world with an average attendance rate of 22,580 people per game, surpassing the leagues such as Ligue 1 and Bajia. In the league attendance ranking in Asia,

Super League ranks first, becoming the only Asian league that can rank among the top ten in the world. In addition, the Chinese Men's Professional Basketball League has also made a great leap. In the 2014-2015 season, there were 1.62 million spectators, with an average attendance rate of 68.86%, and the average audience reached the highest level in the past six seasons. With the continuous growth of sports industry, there will be huge room for local competitions to rise. Therefore, in order to solve the problem of insufficient supply of events in competitive performance industry, it is necessary to create "small but fine" high-quality events. By actively introducing capital investment, a closed loop is formed, in which capital is attracted by events and capital is promoted by events. At present, with the improvement of the development level of the competition, the absorbed capital will also increase. In 2015 alone, Sports Olympics won the 5-year copyright of Super League for 8 billion yuan; The Wukesong Gymnasium, named after LeTV Sports, became the "LeTV Sports Ecological Center", forming a sports ecological chain; ENDURA has become a sponsor of cycling equipment in Hubei Bicycle League. This series of events indicates that Chinese local brands are getting more and more attention from enterprises, and local sports events will occupy an important position in the sports market in the future.

# 3.4 Using internet technology to promote the innovation of fitness and leisure industry model.

The supply side and the demand side are like the palm and back of a person, which are beautiful only if they are symmetrical or balanced, otherwise they will appear deformed. The function of the Internet is to connect the two, and reflect the information on both sides to each other truly and completely, so that both sides can grow and develop in a unified rhythm. In the final analysis, the asymmetry of information on the supply side and the demand side causes the problem that the products and services in sports fitness and leisure activities are not matched with the mass fitness needs. In the process of planning and building fitness projects, government departments can't get real survey demand information from mass groups, so the understanding of specific information such as mass project preference, income and leisure time is incomplete. However, this incomplete information acquisition will also lead to the fitness project invested heavily by the state, which cannot play a substantial role because it does not meet the real fitness needs of the masses, and the fitness project established with the original intention of improving the physique of the whole people will eventually become a material decoration. To solve this problem, we must make full use of Internet technology to make up for the mismatch caused by information asymmetry. By using Internet tools, we can make the demand correspond to the flexible production capacity of manufacturers one by one, build a professional service system supporting the industry, and continuously promote the model innovation of fitness and leisure industry.

To solve the problem of mismatch between supply and demand of fitness and leisure activities, we can learn from online to offline, that is, the communication and trading platform between suppliers and demanders formed through the Internet platform. Fitness institutions upload information resources such as venues, coaches' basic information, idle time and user evaluation through the Internet, so that users can make online appointments, pay fees and enjoy offline services according to the information. At the same time, it directly realizes the docking between coaches and users, so that they can use the platform to take orders at zero cost, which reduces the intermediate cost of teaching, while users can find suitable coaches in the shortest time through the platform, and use the platform for evaluation and feedback. This model reflects the information of demanders to the supply side in a comprehensive and timely manner through the Internet, prompting producers to supply products and services that can meet the diversified and personalized needs of consumers, and then driving the adjustment of production methods, the transformation of production processes and the redistribution of production factors on the supply side. Therefore, the

government should also make full use of Internet technology before building sports infrastructure and fitness projects, so that the design, construction, use and maintenance of fitness projects are always online, so that the masses can know the relevant information and trends of government fitness projects through the information released by the platform, and give corresponding suggestions and supervision. And the government can know the real fitness needs of the masses by publishing questionnaires on the platform. Finally, the demand and supply are connected through the Internet, so that the people's fitness needs can be met, and at the same time, the government can form a matching supply model and supporting service system around the demand.

### 4. Concluding remarks

The contradiction between supply and demand faced by sports industry is not caused by insufficient demand, but by the surplus of ineffective supply on the supply side, the shortage of effective supply and the mismatch between supply and demand. There is no lack of consumption power in China, but supply cannot keep up with consumption demand. Therefore, the sports industry should not continue to focus on stimulating consumption, increasing investment and exporting, but should start from the upstream supply side, promote the reform of various industries from the four main lines of labor, capital, land and innovation, and strive to form an effective and stable medium-and long-term supply.

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# RESEARCH ON ORGANIZATIONAL INNOVATION MANAGEMENT BASED ON INTERNAL CONTROL

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#### **ABSTRACT**

Under the new normal state, the business development of enterprises faces more fierce competition and more risk challenges. Strengthening internal control can achieve the intensive use of funds and resources and serve the realization of corporate strategic goals. Therefore, the level of internal control has become an important factor that determines the operating efficiency and competitive strength of an enterprise. From the perspective of internal control work, we use statistical theory and management accounting ideas to explore the relationship between market culture, management control style, and corporate performance in internal management from both theoretical and empirical analysis, and clarify the Influence process. Then according to the research conclusions, an innovative plan for the financial management of the enterprise is formulated, which is conducive to the overall optimization of the quality of the enterprise's financial work. This has positive significance for the improvement of the management accounting theoretical system and the improvement of the overall operation quality of the enterprise's financial management.

**Keywords:** Market culture; Management control style; Financial Control; Business Performance

#### INTRODUCTION

Under the modern enterprise system, a mainstream management concept is to achieve intensive management, use fewer resources, and achieve better management results. This is also a direct manifestation of the pursuit of profit maximization by enterprises. In this context, organizational culture and internal control have many things in common in terms of goals and methods and have the necessary conditions for integration.

We analyze the mechanism of organizational performance, examine the impact of various variables on organizational performance, and study the comprehensive benefits of organizational culture, management control style, and financial control methods on organizational performance. There is little empirical research in this field in China, mostly qualitative Analysis, lack of data measurement, and accuracy analysis. Because of the current negligence of enterprises on organizational culture and the lack of domestic scholars to study the quantitative relationship model of organizational culture, management control style, and organizational performance, we link organizational culture with management accounting theory, establishes a model, and uses quantitative analysis to measure different variables For the impact of corporate performance, provide empirical support for the comprehensive impact of market culture, management control style and financial control methods on organizational performance through research, and give a more accurate measurement of its impact. Research-based on these issues, whether from theoretical From the research point of view, has far-reaching significance from the actual enterprise management and operation strategy.

#### LITERATURE REVIEW

Zhang Xu and Wu Chunyou (2006) [1] proposed that organizational culture is the corporate values, the organizational principles of beliefs and attitudes, and guides the practice of the enterprise, which plays a positive role in the management performance of the enterprise. Simons (2004)[2] proposed the diagnostic control style as a feedback system, designed to ensure the realization of predictable goals. The control style uses results as a benchmark for detection. Niu Yan (2008) [3]believes that the company's management and control style is also one of the key reasons for the company's performance. Only by adding the actual operating status of the company to the management and control style, and through viable financial control methods can it help the company to improve Performance. Enterprise performance should be carried out from two dimensions of governance and control. Control can be classified as behavioral control and consequential control. At the same time, in the empirical research of Widener (2007)[4], this point should be confirmed. He mentioned that an effective control system will guide the organization not to go down the wrong track, and through control means, financial control is one of the commonly used control means. The correctness and rationality of the plan can be verified, and the relationship between the results-oriented diagnostic control system and the interactive system as the financial strategic target monitor and the financial control. Liang Song and Shi Benshan (2010) [5] analyzed the relationship between corporate financial control and corporate performance, and the role of corporate financial control on corporate performance, and found that the greater the intensity of corporate financial control, the greater the company's market share; The smaller the degree of corporate financial control, the lower the company's market share. Anna (2008)[6] pointed out that the status of business control can directly reflect the strength of the organization's internal control capabilities, so the organization's performance level can be understood from the financial control situation. However, different scholars have different views on financial control. Ye Zi (2011) [7] found that the results of financial control failed to promote the organization's improvement in business performance, nor did it help the organization's performance to grow. Too strict financial control may also inhibit Organizational Performance. Quieseenti et al. [8] Pointed out that there is a positive correlation between management control style and corporate performance. Management control style is essential for companies to do internal control and improve business performance. Simons (1995) [9] mentioned in the empirical research that the diagnostic control style is a feedback system and the pillar of the traditional management control system. Its design purpose is to ensure that a predictable goal is achieved, and the available survey indicators in financial terms have market share. , Investment return level, sales growth rate, overall profitability, etc.

Domestic and foreign scholars' research on management control includes different types of management control. Some scholars have verified the impact of organizational culture, management control style, and financial control on corporate performance. Performance, however, the comprehensive impact of market culture and management control style (diagnostic control style) on organizational performance through financial control has not yet been explored. And most domestic research stays at the theoretical conclusion, for this, we propose the entire theoretical framework.

#### THEORETICAL FRAMEWORK AND BASIC ASSUMPTIONS

The dominant culture of an enterprise is accompanied by the problems of management and control. How does the organizational culture affect the management control style of the leader, how to choose the organizational culture and management control style that matches the enterprise, and through which path to improve or suppress the organizational performance, Furthermore, how-to guide the operation and management of enterprises is a problem that Chinese enterprises urgently need to understand, and it is also a problem that this article focuses on. We combine the market culture and management accounting research fields, starting from the concepts of organizational culture, management control style, financial control, and organizational performance, etc., based on studying the relationship between variables, further explores the organizational culture and management methods Will it directly affect the performance of the enterprise, and which paths indirectly affect the performance of the enterprise?

The theoretical framework is specifically shown in the following figure:

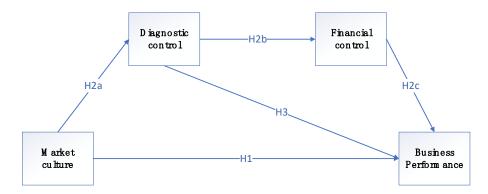


Figure 1. The structure diagram of the proposed theoretical framework

The following is a detailed analysis of the basic assumptions in the proposed theoretical framework.

# H1: The market culture is related to corporate performance and has a positive correlation.

Market culture, as one of the most common and typical corporate cultures in China, emphasizes the competitiveness between organizations and market competitors, as well as the competitiveness between employees. It is a result-oriented organizational culture that has a significant impact on the management performance of the company's influences. Kotter Sugita & Takuya (2009) [10] also obtained empirical results to create an organizational culture that matches the business environment and strategy. Improvement plays a relatively important role. In summary, the author makes this assumption.

H2a: Market culture will affect the diagnostic control style, which is positively related.

The implementation of the diagnostic lever requires three conditions: (1) the ability to evaluate the output of a certain process in the work operation; (2) the standard with which it can be measured; (3) the ability to deviate from the predetermined standard Correct the behavior. As the pillars of China's traditional management and control system, the above three points are consistent with the result-oriented market culture. So we make this assumption.

# H2b: Diagnostic control style will affect financial control and have a positive correlation.

Diagnosis management control is mainly to achieve the effective allocation of resources, to determine goals, to correct the direction and strategy of the enterprise promptly, to evaluate past work at all levels, and to save management's attention. The manager's diagnostic management control covers a considerable range. The impact of the diagnostic management control system on corporate finance is mainly reflected in the diagnostic control in financial management. Therefore, the author puts forward this hypothesis: the senior

management of the enterprise mainly through the diagnosis and management of the finance in the diagnosis control system, positively affects the enterprise's financial control, and further improves the enterprise's financial performance.

# H2c: Financial control is related to corporate performance and has a positive correlation.

The management style of enterprise executives is inseparable from enterprise performance, and diagnostic management control is the core part of the management control system. The diagnosis management control system is mainly used to monitor the results and correct deviations. The senior management of the enterprise can solve the problems existing in the production management and management process by optimizing the management structure, production structure, and profit layout of the enterprise. In the long run, it can promote the active and healthy development of the enterprise and thus achieve the goal of improving enterprise performance. Therefore, the relationship between the two is closely related. On the other hand, inappropriate diagnostic control measures may be implemented in the management process, and the effectiveness of the diagnostic management control system will take some time. Failure to adjust or stop such measures in time may cause some losses. Therefore, inappropriate schemes and strategic adjustments may inhibit the improvement of corporate performance. When we make assumptions, it is difficult to determine whether they are positive or negative. In summary, the author proposes the following assumptions.

# H3: The diagnostic control system is related to the performance of the company and has a positive correlation.

Excellent financial control helps the company to better manage and develop healthily, and effectively improves the company's efficiency in financial management, which will improve corporate performance to a certain extent. Scientific and reasonable financial budget and financial control in terms of profit acquisition and financial expenditure can significantly improve the financial performance of the enterprise.

In summary, the author assumes that market culture has the indirect path to organizational performance: Market culture directly affects the style of diagnostic control and thus affects organizational performance; market culture directly affects the style of diagnostic control, which in turn affects corporate performance through financial control methods.

### **EMPIRICAL ANALYSIS**

### 4.1 Questionnaire data description

By issuing questionnaires, the author surveyed 113 middle-level or above management of mainland companies. In the end, 554 questionnaires were sent to 113 Mainland enterprises, and 509 questionnaires were retrieved, of which 337 were valid questionnaires. These data come from 337 effective investigators from 113 Chinese companies. The companies participating in the survey are mainly state-owned enterprises and private enterprises. Up to 69% of the valid data comes from the middle-level leadership or above, which meets the criteria for the middle-level management or above as the invited surveyor, which was prepared in the design of this questionnaire. 75.9% of the invited survey respondents are senior employees of the company and have more mature views on the company. 94.2% of the invited surveyors have received higher education and have a sufficient understanding of the details of the questionnaire.

#### 4.2 Quantitative analysis of research variables

#### 4.2.1 Market culture

For the design of market culture quantification, the internationally used cultural measurement tool OCAI (Organizational Culture Assessment Instrument), and Quinn & Kim (2011) authoritative classification methods are used. OCAI contains six corporate culture characteristics, each of which includes Four different descriptions require managers to allocate 100 points to each of the four different options based on how well each description fits their corporate culture. Regarding the four options A, B, C, D in the questionnaire, the author focuses on the questionnaire's research on the scoring of option C for each question, to explore relevant conclusions about the "market culture" in organizational culture.

### 4.2.2 Factor analysis of diagnostic control and financial control

Factor analysis is an exploratory data analysis method in statistics. The main purpose of factor analysis is to describe some hidden variables that cannot be directly measured in a set of measured variables. The factor analysis method was used in this questionnaire survey, which not only helped the author to extract a few major factors in the generation management style and financial control (each major factor can fully summarize the management control style reflected in the project), but also quantified Manage and control the relevance of various items to public factors, and help to understand the ability to explain the actual reflection of unobserved hidden variables.

#### (1) Diagnostic control

Simons (2000) proposed that the diagnostic control style is a feedback system. The management uses the diagnostic control style to obtain the performance that the organization has achieved while correcting the deviation of the expected given performance.

The common factor variance contribution of diagnostic control is that the cumulative variance contribution rate of the first common factor has reached 59.176%. The author believes that to some extent, this common factor can already reflect the common role of different aspects of diagnostic management style.

Diagnostic control factor: In the management process of enterprise managers, management control is used to track target progress, monitor results, find deviations and take measures, and be used to evaluate and monitor subordinates.

#### (2) Financial control

In this study, the author used five internal attribute measurement methods for the measurement of financial control. Van der Stede (2001) proposed that the five core attributes of financial control include the degree of communication-related to financial control, the relevant meetings that emphasize budget, and the annual Budget revision, detailed quantity of budget control, and tolerance for budget deviations. In the "management control methods and management effectiveness" in the questionnaire, the author's research focuses on the management of the company's financial budget.

The cumulative variance contribution rate of the first two common factors of the SPSS output reaches 66.275%, which can largely reflect the sample information. The author chooses the first two common factors as the main research variables.

Financial factor 1: Whether senior management has effective communication and feedback with superiors and subordinates in financial budget control;

Financial factor 2: The degree to which senior management attaches importance to financial control management;

### 4.2.3 Business Performance

Through research integration, this study selected the comprehensive measurement method of Kaynak & Kara (2004), which includes seven items of financial and non-financial performance, and asked respondents to indicate that they agree with the following regarding their current business The degree of this statement includes seven dimensions including

market share, sales growth rate, overall profitability, return on investment, customer retention rate, employee turnover rate, and introduction of new products into the market to comprehensively evaluate corporate performance. We take the average of these seven items as a quantitative indicator of corporate performance.

### 4.3 Influencing process path analysis

# 4.3.1 Correlation analysis

Correlation analysis is the analysis of variables that are indeed connected in the population. It is the process of describing the closeness of the relationship between objective things and expressing it with appropriate statistical indicators. The correlation coefficient is a commonly used indicator to measure the correlation between variables. Although the Person correlation coefficient mainly reflects the linear correlation between variables, the calculation process is simple and the positive and negative correlation between the variables can be analyzed and the correlation between the variables can be roughly estimated.

**Table 1.** Research Variables Variable Correlation Coefficient Table

	Market culture	Diagnostic control factor	Financial control factor 1	Financial control factor 2	Business Performance
Market culture	1.00	0.131	0.083	0.07	0.097
Diagnostic control factor	0.131	1.00	0.28	0.292	0.356
Financial control factor 1	0.083	0.28	1.00	0	0.316
Financial control factor 2	0.07	0.292	0	1.00	0.246
Business Performance	0.097	0.356	0.316	0.246	1.00

The correlation coefficient of market culture to corporate performance is 0.097, so there is no significant relationship between market culture and corporate performance, and it also shows that market culture must indirectly affect corporate performance through mediation.

### 4.3.2 PROCESS regression analysis of the overall model

Consider whether the influence of market culture (parameter X) on corporate performance (dependent variable Y) can influence corporate performance Y through market culture X affecting intermediate variables M1 diagnostic control style and M2 financial control.

Path market culture-> diagnostic control-> financial control-> enterprise performance, market culture through positive diagnostic control, diagnostic control has a positive impact on financial management and then improves corporate performance. (Bootstrap confidence interval [0.004,0.0023], LLCI and ULCI are both greater than 0) The model is significantly effective; the stronger the market-oriented organizational culture penetration, the stronger the diagnostic control, and the managers under the diagnostic control can track the progress of the company 's goals and monitor the results, Can timely detect deviations and take measures, as well as evaluate and monitor subordinates, and the ability to communicate and

feedback on financial budgets and the importance of financial budget management will be strengthened, strengthen communication and communication with relevant staff on financial budgets and according to the business situation Adjusting business measures can be more timely, thereby improving corporate performance.

#### INNOVATIVE BUSINESS MANAGEMENT STRATEGIES AND METHODS

#### 5.1 Raise the level of enterprise diagnosis management control awareness.

The foundation of enterprise diagnosis management control consciousness construction to ensure that the enterprise's internal control work is promoted at a high level. Enterprises need to conduct research and analysis on the basic role of diagnostic control awareness cultivation. Enterprise managers should first have a clear understanding of the management control style of management. As the core of enterprise management, the diagnostic control style of enterprise managers should be paid more attention by managers. At the same time, enterprises must also have a mature diagnosis control mechanism. To increase the financial performance of enterprises, attention should be paid to the evaluation and adjustment of financial items in the style of diagnostic control.

#### 5.2 Set clear financial management information goals in time.

To improve the management efficiency of financial work, it is necessary to formulate a clear financial management information target. Affected by the new accounting standards, all aspects of the company's production and management are constantly changing, and the development speed and actual conditions are different. In short, enterprises need to improve their actual situation based on the framework mentioned in this article, formulate financial management information goals that suit the development of the enterprise, provide various data support for the company's business decisions, and promote the healthy and stable development of the enterprise.

#### 5.3 Improve the level of the corporate financial management system.

Enterprises need to investigate and analyze the related factors of the construction of a financial internal control management system and summarize the related factors of interest in financial work so that more initiatives related to the innovation and development needs of corporate finance work can be operated under the system 's specifications. Fully adapt to the innovative development needs of financial work. The construction of the corporate financial internal control system must strengthen the focus on the influence of internal management related work, especially to examine the influencing factors of the enthusiasm of financial professionals. More measures that meet the innovative needs of corporate finance work can be obtained in the system construction. Improvement, to achieve a comprehensive optimization of the internal control of corporate finance.

#### **CONCLUSION**

To explore the comprehensive impact of market culture and management control style on corporate performance through financial control, this paper proposes an innovative management framework based on market culture and enterprise management control style theory. This article starts with the concepts of market culture, managers' diagnostic management control style, financial control, and corporate performance. Through practical analysis, quantitative research on the correlation between variables provides the management and statistical basis for the proposed theory. In actual operation, it can first help the

organization locate its organizational culture type, measure the organization's management control style, the degree of use of financial control, and the overall performance of organizational performance. Then advance one to help managers correctly determine whether the organization is suitable for using a market-oriented organizational culture, whether the organizational culture is consistent with the organizational strategy, and whether a management control method that matches the corporate dominant culture is used. Finally, from a long-term perspective, the innovative management strategies and methods based on the theories of this paper have a certain guiding effect on enterprise management. This research result has high reference value for scholars who make relevant academic research in the future and also contributes important literature for the gradual improvement of Simmons' control lever framework. The author hopes that other scholars will further expand the research on management control style and promote the further improvement of Simmons' control lever framework.

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#### AN EMPIRICAL STUDY ON CUSTOMER SATISFACTION EVALUATION OF CHINA PUBLIC SERVIES BASED ON STRUCTURAL EQUATION MODEL

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#### **ABSTRACT**

Based on American Customer Satisfaction Index (ACSI), combining with the current service-oriented government requirements, we analysis influencing factors of public services satisfaction, build China Public Services Customer Satisfaction Index (PSCSI). Further, an empirical study on the PSCSI reasonability using SEM method. The results show that the perceived effect of public services, as well as the differences of public services quality has a greater impact on Public Services Customer Satisfaction.

**Keywords**: Public Services, Differences in perception, Structural Equation Model (SEM), Public Services Customer Satisfaction Index.

#### INTRODUCTION

Lots of countries have developed evaluation models to evaluate customer satisfaction of the public sector [1], such as the ACSI model in America, SCSB model in Sweden, DK model in Germany, KCSI model in South Korea, as well as MCSI model in Malaysia. Chinese scholars [2-7] also have made some achievements in various related topics in this area, such as customer satisfaction measurement system of the public sector, Government Information Platform (GIP) evaluation of public satisfaction, and customer satisfaction measurement index system of the government's public service, and etc. These studies provide theoretical support to carry out public satisfaction rating of public sector. In addition, with the development of China's economy and society, as well as the improving public' sense of social responsibility, the enthusiasm of democratic awareness and requirements for participation in social affairs are being strengthened continuously. The government departments not only need to concern to enhance their ability to govern, but also spend more energy to concern about public satisfaction. Therefore, public satisfaction index is incorporated into the government performance evaluation system[8], the local governments have carried out various forms of public participation in evaluating government activities, such as" people rating government" in Nanjing, "online council government" in Beijing, "people evaluate officer"in Qingdao, and etc. However, with respect to these "public participation in evaluating government" activities, due to lack of a comprehensive evaluation system of public satisfaction, their effect is minimal. Based on the famous American Customer Satisfaction Index model [9] (ASCI), combined with the actual in construction of service-oriented government in China, this study proposed a novel model named China Public Services Customer Satisfaction Index model(PSCSI), and constructed variables and model structure. According to this theoretical model, we designed a questionnaire and collected real-world data of PSCSI, and completed an empirical study after handling missing values. Using these data, the proposed model was fitted, corrected and interpreted.

#### 1. China Public Services Customer Satisfaction Index Model

Public services customer satisfaction derived from the public perception of the performance of the service core functionality (or content) in the process that the public accept government services. Therefore, the analysis and refining relevant factors that affect the public perception to the quality of government services is the basis to build public services customer satisfaction conceptual model. Generally the relevant factors that affect the public perception of the quality of government services include: service process, service content, service attitude and service levels, and service effectiveness. These elements can be used to compare the difference between the quality of public expectations and public perception, i.e. the differences in perception of the effect of public services, which ultimately affects the public's satisfaction. And the public satisfaction would affect the government's image in the public mind and the public trust in government.

Based on the above considerations, in succession on the concept of the ACSI model, combining with the characteristics of the government's public service and the needs of the Service Government Construction, we build China Public Services Customer Satisfaction Index (PSCSI). As shown in Fig.1, ten latent variables are included in the model. Five exogenous variables affect the customer's satisfaction, it is the public service supplies institutional guarantee 1, public services quality guarantee 2, public services content quality 3, public expectation 4, public services attitude and the level 5; five endogenous variables are the awareness about the quality of public service 1, cognitive differences of public service effects 2, public satisfaction 3, image of service-oriented government 4, and public trust 5. The first seven variables are premise variables, the other three variables are outcome variables, the premise variables synthetically decide and affect the outcome variables [10].

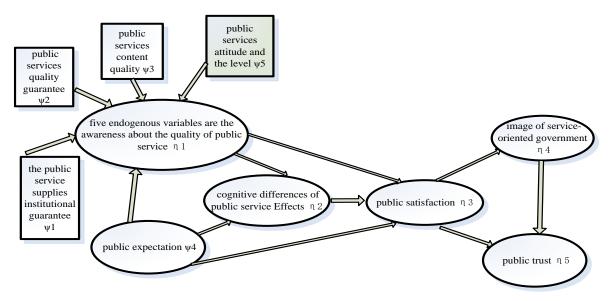


Fig. 1: China Public Services Customer Satisfaction Index (PSCSI)

#### 1. 1 Latent variables content and their relevant relationships

Public service supplies institutional guarantee 1:a long-term mechanism to guarantee the public access to public services. It includes information distribution system of public services, public services funds supervision system, channels and means of the public participation the public services, and evaluation system in public service supply performance. And part of these properties, such as completeness, authority, fairness, effectiveness, and transparency of the rules and regulations, will impact on the awareness of public service quality indirectly.

Public services quality guarantees 2: a guarantee mechanism of public service include audit, acceptance, and supervision of Public programs. The assessment of Public programs includes government self-assessment, superior department's assessment, public assessment, and professional institutions assessment from the third party. The objectivity, effectiveness, comprehensiveness, authority of the public service quality evaluation, will impact on the awareness of public service quality indirectly.

Public services content quality 3: it is public services content quality that is the most awareness in the public; it decides whether the public can enjoy the services they wanted. Therefore, the practicality of public service content, associated with the degree of expected service (public relations), comprehensiveness and quality attributes, the image of the service-oriented government will have some impact, but will also indirectly affect the awareness quality of public services.

Public expectation 4: The expectation is that a person wants to achieve a goal and the pursuit based on past experience and reality. The expectations of the public on the government's public service, is a subjective value judgment of the quality of the future government's public service, on the basis of the past or existing perception of government's public service. Public expectations will have some impact on the awareness quality of public services, public satisfaction and government trust.

Public services attitude and the level 5: public services attitude and the level is an evaluation of the words, deeds, practices, and work skills, communication, sense of service when the main supply of public services supply public services. The public service attitude, and level will impact on the awareness quality of public services and public satisfaction.

The awareness regarding the quality of public service 1: it is the key impact factor of public satisfaction evaluation. This is a comprehensive evaluation of the public's feeling and experience about the process when they accept public service. It is a comprehensive evaluation of the public service supplies institutional guarantee 1, public services quality guarantee 2, and public services content quality 3. It depends on a comparison of the public expectations with their own awareness.

Cognitive differences of public service Effects 2: it is the comparison of the public's awareness about the quality of public service and the expectations of public service quality. It is that the public examine the effectiveness of public services from the perspective of their own value judgment, and ultimately make a value judgment [11]. There are some differences between public service effectiveness perception and the structure variable "perceived value" in the ASCI model. It mainly focused on public cognition of the public service awareness, preferences and subjective, i.e. a value judgment.

Public satisfaction 3: it is a comprehensive subjective evaluation of the awareness about the quality of public service 1 and cognitive differences of public service Effects 2. It is a general measure of a public service satisfaction.

Image of service-oriented government 4: a perception evaluation of the government services supply, the government services attitude, government services level, government services content. This perception evaluation is established on the basis of the public satisfaction evaluation. And it will impact public's trust to government.

Public trust 5: the public trust in the political system, government agencies, government decision-making and government officials' behavior based on rational cognition, perception of practice, psychological expectations, and emotional factors [12]. In this study, it is a kind of trust evaluation to public services after people accepted the public service. It determines whether the public will accept the government's public service again. It is the ultimately factor which affects whether the government's public service meets the needs of the public.

Based on the above analysis on the research contents and the relevant relationships amongst latent variables, we propose the following hypothesis:

Hypothesis 1: Public service supplies institutional guarantee 1 has a positive impact on the awareness about the quality of public service 1.

Hypothesis 2: Public services quality guarantee 2 has a positive impact on the awareness about the quality of public service 1.

Hypothesis 3: Public services content quality 3 has a positive impact on the awareness about the quality of public service 1.

Hypothesis 4: Public expectation 4 has a positive impact on the awareness about the quality of public service 1.

Hypothesis 5: Public services attitude and level 5 have a positive impact on the awareness about the quality of public service 1.

Hypothesis 6: The awareness regarding public service quality 1 has a positive impact on cognitive differences of public service Effects 2.

Hypothesis 7: The awareness regarding public service quality 1 has a positive impact on public satisfaction 3.

Hypothesis 8: Cognitive differences of public service Effects 2 has a positive impact on public satisfaction 3.

Hypothesis 9: Public expectation 4 has a positive impact on cognitive differences of public service Effects 2.

Hypothesis 10: Public expectation 4 has a positive impact on public satisfaction 3.

Hypothesis 11: Public satisfaction 3 has a positive impact on image of service-oriented government 4.

Hypothesis 12: Public satisfaction 3 has a positive impact on public trust 5.

Hypothesis 13: Image of service-oriented government 4 has a positive impact on public trust 5.

#### 1.2 Observed variables design

Since government departments public services customer satisfaction index is a state of mind of their own experience and the expectation after public acceptance of government services, it is a subjective value judgment in the sense. In the model, the assumptive latent variables are generally difficult to be measured directly. Therefore, this paper uses 32 observed variables for 10 latent variables, and establishes evaluation scale of public services customer satisfaction index which we cannot show here because the words limit of paper .

We can find multiple correlations amongst these variables in Tablea. So we assume that there is a linear relationship amongst these variables. And this linear relationship can be expressed by the structural equation model.

The main function of the structural equation model [13] is that it can establish the latent variable causality path analysis diagram, and make effect analysis with repect to direct and indirect influence amonst different variables.

The directly affects effect analysis use structural equation modeling to direct determine causal relationship between the latent variables. And the indirectly affects effect analysis use manifest variable as intermediate variable, and use the observation equation, to observe the relationship between endogenous latent variable and exogenous latent variable. That is, through the intermediate variable, independent variable measure dependent variable, and analysis the relationship between them. In this sense, structural equation modeling is a kind of a way to verify the causal and non-causal relationship between the measurable variable and unpredictable variables. In the government departments public services customer satisfaction index, the customer satisfaction index is a subjective value judgments, can not be directly observed and need the mediating variables to measure it. This accord with the structural equation modeling scenarios, so in

this paper, we use structural equation model to evaluate customer satisfaction index.

### 2. A Empirical Study on the Public Services Customer Satisfaction on Evolution 2.1 Data Collection

In this paper, we collect data via a questionnaire survey. The investigation period is from June 1, 2019 to October 1, 2019. In order to successfully complete the investigation in Anhui Province, we entrusted the Anhui Provincial Municipalities Administrative Service Center to survey the people who enter the Center and accept the survey voluntarily. The questionnaire included two parts: The first part is regarding the basic information of the participants, such as age, occupation, gender, education degree. And the second part is designed with 5 Likert scale based on the 32 observed variables index system. Participants were asked to evaluate 5 grades for each question in the questionnaire (from highly satisfied to extremely dissatisfied).

We delivered 1912 questionnaire, and collected a total of 1841 questionnaires. Excluding those that are not standardized or with missing values, there are valid 1776 questionnaire left. This paper completed the analysis based on the valid date. The basically statistic information is shown in Table 1, Table 2.

**Table1** Basic statistical analysis information regarding valid data

Basic	l l l l l l l l l l l l l l l l l l l	statistics		
information	Observing indexes	absolute	relative	
variables		number(people)	number	
COV	man	1286	0.724099	
sex	woman	490	0.275901	
	20 years old or below	146	0.082207	
	20 to 30 years old(30 included)	381	0.214527	
0.00	30 to 40 years old(40 included)	588	0.331081	
age	40 to 50 years old(50 included)	422	0.237613	
	50 to 60 years old(60 included)	138	0.077703	
	over 60 years old	101	0.056869	
	high school and below(include	384	0.216216	
	technical secondary school)	304	0.210210	
education	college degree	471	0.265203	
	bachelor	449	0.252815	
	master or above	472	0.265766	
	government officer	104	0.058559	
vocation	employees in enterprise and public institutions	431	0.24268	
	businessmen	359	0.20214	
	educators	315	0.177365	
	freelancer	207	0.177303	
	farmer	239	0.134572	
	others	121	0.068131	

Table2 the distributed geographical distribution and recovery of public satisfaction survey

questionnaire

city	questionnaire issue number	questionnaire recycling number	Number of valid questionnaiers	valid response rate
Anqing	124	120	120	100%
Bengbu	135	121	118	98%
Lu'an	128	122	122	100%
Chuzhou	144	140	131	94%
Maanshan	150	150	142	95%
Huangshan	135	131	124	95%
Chizhou	143	137	130	95%
Tongling	167	158	158	100%
Fuyang	129	129	121	94%
Suzhou	160	155	149	96%
Bozhou	135	127	113	89%
Hefei	220	212	209	99%
Huaibei	142	139	139	100%
total	1912	1841	1776	96%

Statistical results can be seen from Table 1 and Table 2, which shows this survey has a wide range of distribution in region t age and cities, as well as education level . The valid questionnaires recovery rate is over 90% in cities except Chuzhou City.

#### 2. 2 Reliability and validity test

Public satisfaction model operation is established on the basis of the latent variables observable indicators designed scientifically and rationally. Therefore, before we use these observable indicators data to run the model, we need conduct reliability test and validity test.

#### 2.2.1 Reliability test

Reliability test is to check of the reliability of data measurements, which means to detect latent variable and its observation variables internal consistency. The reliability indexes Cronbach's alpha coefficient, studies have shown that it is a high internal consistency of the latent variables and their observed variables, when Cronbach's  $\alpha \ge 0.7$ ., the reliability test results are shown in Table 3 by SPSS14.0.

**Table3** Reliability test and Cronbach's a coefficient

Iatent variables	Cronbach's a coefficient	Measured variables
The public service supplies institutional $\Psi 1$	0.8851	3(X1,X2,X3)
public service quality guarantee Ψ2	0.9107	4(X4,X5,X6,X7)
public service content quality Ψ3	0.9940	4(X8,X9,X10,X11)
public expecation Ψ4	0.8208	3(X12,X13,X14)
public service attitude and the level Ψ5	0.9539	4(X15,X16,X17,X18)
the awareness about the quality of public service η1	0.8954	3(Y1,Y2,Y3)
cognitive differences of public service	0.8897	3(Y4,Y5,Y6)

Iatent variables	Cronbach's a coefficient	Measured variables
effects η2		
public satisfaction η3	0.9438	3(Y7,Y8,Y9)
image of service-oriented government η4	0.8678	2(Y10,Y11)
public trust η5	0.8104	3(Y12,Y12,Y14)
total	0.9437	32

As shown in Table 3, the overall reliability testing Cronbach's alpha coefficient of the survey data is 0.9437, indicating that the survey data has a high reliability. In addition, all Cronbach's alpha coefficients of all latent variables were  $\geq$  0.7. Therefore, the questionnaire scale has high data reliability.

#### 2.2.2 Validity test

Validity testing is checking the measured variables, i.e. how much extent the measurement indexes express the meaning of latent variables. The higher the validity, the more consistent the measurement results and examines the contents, and vice versa. Validity testing is generally divided into content validity, criterion validity and constructs validity. Content validity testing refers to take samples about the applicability and representative of the contents on the questionnaire. Criterion validity testing refers to compare the obtained data from the scale and the values of other selected variables (criterion variable) to make sure whether it makes sense. Construct validity testing refers to the measurement results reflected a certain structure and the degree of correspondence between the observed values.

In the actual operation, the first two types of validity need expert qualitative research or generally accepted criterion of measuring, so it is difficult to achieve, but the structure validity can implemented used in a variety of ways [14]. The structure validity testing generally [15] uses the method of factor analysis. In the results of factor analysis, the main indicators to evaluate the structure validity are cumulative contribution rate, joint degree and factor loading. Cumulative contribution rate reflects the cumulative effectiveness that the common factor explain the scale, joint degree reflect the effective degree of the original variables is interpreted by a common factor, factor loading reflects the relevance of the original variables and a common factor. This study uses the calculation of factor loading to inspect the validity of questionnaire measurable variables. Under normal circumstances, if the factor loading coefficient is higher than or equal to 0.4, we can consider measurable variables has high validity [17]. The observed variable factor loading coefficient is shown in table 4:

As shown in Table 4, the measurable variable validity test factor loading coefficients are above 0.4, which indicating that the text data validity is acceptable.

**Table 4** observed variable validity testing factor loading coefficient

latent variables	observed variables	factor loading coefficient	significance level p
	X1	0.571429	***
the public serbice supplies institutional guarantee Ψ1	X2	0.561905	***
montunional guarantee 11	X3	0.580952	***
	X4	0.623181	***
public services quality guaranteeΨ2	X5	0.674619	***
	X6	0.590476	***

latent variables	observed variables	factor loading coefficient	significance level p
	X7	0.619048	***
	X8	0.552381	***
public services content	X9	0.507619	***
qualityΨ3	X10	0.609524	***
	X11	0.538095	***
	X12	0.995238	***
public expectation Ψ4	X13	0.661905	***
	X14	0.457141	***
	X15	0.590476	***
public services attitude	X16	0.642857	***
and the level Ψ5	X17	0.609523	***
	X18	0.685714	***
the awareness about the	Y1	0.714285	***
quality of public service	Y2	0.642857	***
η1	Y3	0.680952	***
	Y4	0.795238	***
cognitive differences of public service effects η2	Y5	0.614286	***
	Y6	0.761905	***
	Y7	0.642857	***
public satisfaction η3	Y8	0.476190	***
	Y9	0.676191	***
image of service-oriented	Y10	0.576158	***
government η4	Y11	0.580958	***
	Y12	0.666667	***
public trust η5	Y13	0.652381	***
	Y14	0.623876	***

#### 2.3 Variable correlation analysis

Correlation analysis is to test the relationship between variables in our proposed model and ensure the relevance of structural equation modeling operational variables and reliability of the results. According to the model and hypotheses in Fig.1, the following correlations in these variables need to be examined.

- 2.3.1 The correlation amongst the awareness about the quality of public service 1, the public service supplies institutional guarantee 1, public services quality guarantee 2, public services content quality 3, public expectation 4, and public services attitude and level 5.
- 2.3.2 The correlation between the awareness about the quality of public service 1, public expectation 4, and public satisfaction 3.
- 2.3.3 The correlation between public satisfaction 3, public expectation 4, and public trust 5.

SPSS14.0 is used to calculate Pearson correlation coefficient amongst the variables. Detailed results are shown in Table 5:

**Table 5** Pearson correlation coefficient amongst different variables

No.	coefficient	Ψ1	Ψ2	Ψ3	Ψ4	Ψ5
1	η1	0.847	0.914	0.641	0.761	0.892
2	coefficient	η1		Ψ4		
	η3	0.831		0.884		
coefficie		η3		η5		
3	η4	0.610		0.802		

Note: there is a correlation when table variables significant level are under the 1%

From Table 5, it can be seen these variables were significantly positively correlated. However, the further impact effects between variables still need to be analyzed by the structural equation model.

#### 2.4 Model validation

We use AMOS7.0 software to conduct estimation and model goodness of fit test of government public service public satisfaction model parameter.

#### 3.4.1 Model parameter estimation

We use AMOS7.0 to test the departmental public services public satisfaction model assumptions and estimate the standardized path coefficient between latent variables respectively. The result of the coefficient estimates is shown in Fig. 2.

From the model path coefficients among variables in Fig.2, the following conclusions can be drawn.

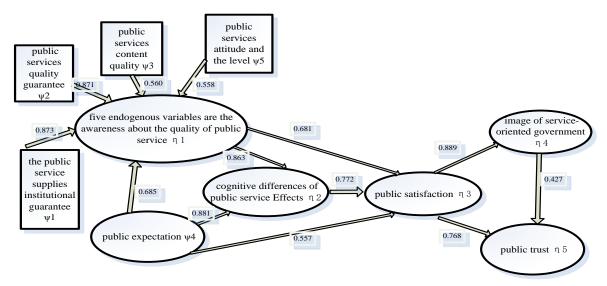


Fig. 2: the standardized path coefficient between latent variables

All the proposed hypothesis, from Hypothesis 1 to Hypothesis 13 have been verified. Model path coefficients are positive which shows that there exists positive relationship between variables. This verifies the proposed hypothesis.

the public service supplies institutional guarantee 1, public services quality guarantee 2 has the greatest impact on the awareness about the quality of public service 1. The public service supplies institutional guarantee 1 has a direct impact on the awareness about the quality of public service 1 reaches 0.873, and public services quality guarantee 2 has a direct impact on the awareness about the quality of public service 1 reaches 0.871. The public services content quality 3 and public services attitude and the level 5 has impacts on the awareness about the quality of public service 1 reaches only 0.56 and 0.558 each. This shows that there are still space for improving public services content quality and public services attitude and level of Anhui provincial government, i.e. the improvement in strengthening the process of building service-oriented government.

Public satisfaction 3 subject to three variables, they are public expectation 4, the awareness about the quality of public service 1, cognitive differences of public service Effects 2. where cognitive differences of public service Effects 2 has the greatest impact, the coefficient reaches 0.772, indicating that the Anhui provincial government public services, public expectations have yet to be improvements. Public expectation 4, the awareness about the quality of public service 1 have both direct effects and indirect effects on the public satisfaction 3, its direct impact coefficients were 0.557 and 0.681, indirect influence coefficient was 0.68 (0.881 \* 0.772) and 0.67 (0.863 \* 0.772). From the indirect influence coefficient, we can see that the main difference is that the two direct impact coefficients in cognitive differences of public service Effects 2 is different. This shows that public services customer satisfaction of the Anhui provincial government needs to be improved.

The image of service-oriented government 4 relies heavily on public satisfaction 3, public satisfaction 3 per upgrade a unit, service-oriented government image 4 speed increases will be 0.889, which indicates that the service-oriented government construction process in Anhui Province must always adhere to the "people-oriented", and constantly improve the public service delivery mechanism, as well as gradually increase public satisfaction.

Public trust 5 is affected by public satisfaction 3 and image of service-oriented government 4. From the view of direct influence coefficient, public satisfaction 3 has a stronger impact on Public trust 5 than the image of service-oriented government 4(0.768> 0.427), which shows that Anhui still has a gap in the current service-oriented government

building, whether the public trust in government and once again willing to accept the government's public service, it depends on the public obtained satisfaction degree at the last public services. Hence, in order to improve future work, Anhui Province government sectors need to improve their government's image and enhance service awareness efforts.

#### 2.4.2 Model fitting and evaluation

Evaluation of structural equation model fit is divided into subjective evaluation and objective evaluation [11]. Subjective evaluation is to use the model to estimate and test the original theory hypothesis, usually is to check the path direction of estimated model and to check whether the influence coefficient sign meets the original assumptions and the actual situation. As shown in Fig. 2, all of the estimates presented in this paper are validated assumptions and the path between variables affect the direction and the size is also not unusual influence coefficients. Hence from the view of subjective evaluation, it is obvious that the model is reasonable.

An objective assessment refers to the relevant evaluation index based on a model data calculate, that fit index to determine the merits of the model. Common structural equation model goodness of fit can be roughly divided into three categories [18], i.e. absolute fit index (the overall fit indices)such as the RMSEA, GFI, chi-square test  $\chi 2$ , RMR, SRMR, and relative fit index also (incremental fit index), such as the NFI, TLI, CFI, etc, and information index, such as the AIC, CAIC and so on. Various standards and optimal fit index for proposed model fit indices are shown in Table 6:

**Table 6** Government Public Services Public satisfaction evaluation model fit indexes

Index Name		the actual value in fitting	Evaluation criteria [19]
Absolute 54	chi-square statistics X <sup>2</sup>	347.25	the smaller the better
Absolute fit index(the overall	GFI	0.836	greater than 0.9
fitting index)	RMSEA	0.049	under 0.05 the smaller the better
D. I. di	NFI	0.930	greater than 0.9,the closer to 1,the better
Relative fit index(incremental fit index)	TLI	0.951	greater than 0.9,the closer to 1,the better
	CFI	0.913	greater than 0.9,the closer to 1,the better
Information fit index	AIC	465.29	the smaller the better

Note: Evaluation criteria given in the table is the optimal standard of fit index. Take RMSEA as example, its value is less than 0.05 indicates a better model fit, and between 0.05-0.08 indicate acceptable model fit(Browne & Cudeck,1993). Therefore, we need analyses according to the specific circumstances in practical studies.

As shown in Table 6, the incremental fit index model NFI, TLI, CFI index value is better, except the overall fit indices index value was slightly lower than 0.9, other indicators of the overall fitting index are in the optimal standard range. Moreover, the model information index is relatively small. Combination of the above, the subjective evaluation of model fitting and the actual value of the proposed model fit indices can be inferred that the public services public satisfaction model (PSCSI) has a high degree of fit, and all the model parameter estimation results are acceptable.

#### CONCLUSION

With the improving of service-oriented government building and the developing of civil society, the public service will get more and more attention. Government departments will also increasingly provide people with content-rich, efficient, high quality, as well as low cost of public services from the perspective of the public. However, because of lack of experience in the service-oriented government construction, plus stakeholders interest demands differences in the service-oriented government construction process, has led to various contradictions and stagnation phenomenon in the process of the service-oriented government building in various places. This stduy aimed at discovering affect public satisfaction factors, provides a data support for building a more satisfying the public service-oriented government.

Government departments in the public service should strive to provide high quality public service content in the future and make the public can really get the service convenience and benefits. efforts to improve the image of the service sector, especially with the transformation of government functions and service-oriented government in-depth construction, we should focus on service image, enhance service awareness and improve service behavio. In addition, government departments should try to provide the public with expectations, efforts to narrow the differences in the public perception of public service effectiveness. And with the development of modern information technology, people will collect certain information before they receive public services provided by government departments. When people get public services, people will compare with their expection in mind. In the real-world, but they often appear inconsistent. It may be due to the government's propaganda before service leading to too high public expectations. Another reason may be that public services provided by government departments really can not meet the public's requirements. Undoubtedly, the public satisfaction to government services will be affected no matter in both these cases.

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#### SURVEILLANCE POLICIES FOR THE CORONAVIRUS PANDEMIC

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#### **ABSTRACT**

The Coronavirus (COVID-19) pandemic has been a life threat to citizens worldwide. In many countries, the governments have implemented surveillance policies to deal with a highly contagious nature of the virus. For example, many governments rule their citizens by an emergency decree to control the spread of the disease. The use of smartphone-based individual tracking applications has been witnessed continuously. This paper aims to explore various forms of surveillance policies which have been implemented by the governments during the COVID-19 crisis, how the policies curtail individual freedom and privacy, the responses from citizens, impacts of the policies, and to discuss whether the surveillance policies make citizens will to support authoritarian responses to the virus temporarily or create a civic preference for authoritarianism in a long run.

**Keywords**— Coronavirus (COVID-19), surveillance policies, individual freedom, authoritarian responses, authoritarianism.

#### **INTRODUCTION**

The Coronavirus (COVID-19) pandemic has been a life threat to citizens of all countries. Levels of contagiousness and severity of the Coronavirus (hereafter COVID-19) pandemic have made the citizens panic as Ustaran (2020) stated, "it happens at a global scale, everyone is at risk – no matter how often you wash your hands."

Consequently, the governments have enforced extreme measures or policies which have become norms of many countries in a short period. These extreme measures or policies have affected privacy of the citizens worldwide. For example, the citizens have been monitored and tracked strictly. In addition to this, their personal medical records have been shared between organizations until between the states or countries (Ustaran, 2020).

Although these extreme measures or policies are aimed to save the world from the COVID-19 crisis, they raise the question that, "are these extreme policies necessary or right to be implemented?" In the country of origin of COVID-19, China, the government has implemented some public policies. For example (Ustaran, 2020):

- "Epidemic maps" a real-time application showing risky areas of COVID-19 infection so that citizens will avoid to travel to those areas:
- The application showing infected people in the public transports. It shows who are infected in a train or a plane that the citizens are being on board.

The extreme measures or policies regarding COVID-19 have created the "dilemma" between the control of the COVID-19 and the citizens' privacy. The potential solution to this dilemma is the "right balance." That is, the governments inevitably have to control the spread of COVID-19 for the national security and the public safety, but they have to always think about keeping the privacy of their citizens as well (Ustaran, 2020).

#### LITERATURE REVIEW

#### 2. 1 What is surveillance policy?

"Surveillance" means a close watch kept over someone or something (Merriam-Webster Dictionary, 2020). According to the author, surveillance policy is a public policy that the government uses to monitor or watch the citizens for the purpose of disease control during the COVID-19 pandemic. This is due to the reason that COVID-19 is a harm to public health, and affect the global economy; for instance, unemployment rate, imports and exports of products.

#### 2.2 Impacts of COVID-19

2.2.1 Impacts of COVID-19 on people's mental health

Pundir (2020) has found that COVID-19 can affect people's mental health in two major ways. First, people will feel unwell when they cannot physically touch the people they love. Second, they are capable to perform maniac behaviours when facing shortages; for instance, shortages of food and other necessary products.

2.2.2 Impacts of COVID-19 on a political equilibrium

Amat, Arenas, Falcó-Gimeno, and Muñoz (2020) argue that COVID-19 creates a new political equilibrium between the public interest and the civil liberty or privacy.

2.2.3 Public policies for COVID-19 pandemic

Amat et al. (2020) also state that the countries worldwide have two major forms of public policies to deal with the COVID-19 pandemic:

- (1) Policies to encourage citizens' voluntary compliance and cooperation in following the social distancing measures;
  - (2) Coercion and surveillance policies.

There are coercion policies that have been implemented in some countries during the COVID-19 crisis. For example, In the Philippine, President Duterte has announced a coercion policy by a very threatening quote, "shoot them dead!" According to this policy, polices, soldiers and other state officers can shoot citizens who violated the lockdown or quarantine measures (Capatides, 2020). In India, state officers can use the sticks to beat citizens who violated lockdown or quarantine policies or force them to do a frog jump (Hindustan Times, 2020).

Both coercion and surveillance policies can genarate "fear," but in different forms. Coercion policy generates fear of death or injury when surveillance policy generates fear of privacy violation or invasion, and fear of restriction on civil liberty. However, the COVID-19 threat seems to be especially effective at fostering support for a strong leader who uses authoritarian responses to COVID-19 (Amat et al., (2020). Coercion and surveillance policies are outstanding examples of those authoritarian responses.

#### RESEARCH METHODOLOGY

This section discusses a research method undertaken in the course of the research. The method undertaken can be found briefly described in the following sections.

#### **Research Design**

This study employs a qualitative method which is a document study only. The purpose of which is to study surveillance policies for the COVID-19 pandemic in terms of:

- Examples of surveillance policies;
- Impacts of surveillance policies;

- Critiques or arguments on surveillance policies; and
- Solutions to those critiques or arguments.

Data collection is conducted through the document study of:

- Official news articles;
- Journal articles: and
- Research articles.

#### **RESULTS AND FINDINGS**

This section discusses the results and findings of the study as follows:

#### 4.1 Examples and impacts of surveillance policies

There are examples of surveillance policies that have been implemented in many countries across the world as follows (Pundir, 2020):

- China is tracking people through their smartphones;
- Israel used its counter-terrorism agency to monitor people; and
- Singapore is using a contact-tracing smartphone application to track infected people.

In case of India, their surveillance policies are quite intense. For example; the Karnataka authority has mandated all citizens who are being quarantined to send selfies to the authority every hour throughout the day. In Delhi, the authority has had government officials postering on home-quarantined patients' houses which revealed their names and those of their family members (Pundir, 2020).

Turning to Thailand, the government has implemented an outstanding surveillance policy, called "Thaichana" policy."



Image source: Thaichana (2020)

Thaichana policy has implemented through two digital platforms consisting of an internet website and a smartphone application which store the collected data in the same database. The policy has two targeted groups (Yonstar, 2020):

#### (1) Entrepreneurs

The entrepreneurs are required to register their business data with the Thai government; for instance, the capacity to serve customers when following the social distancing principle. After that, they will receive the QR code for postering at their business places so that the customers can scan the QR code for check-in and check-out records; and

#### (2) Customers

The customers are required by the Thaichana to scan the QR Code to check in and check out of the business places they visit. Thaichana has collected real-time data, and the data will be stored for 60 days.

In can be concluded that the objectives of Thaichana policy are (Yonstar, 2020):

- (1) To make the government able to track infected people; and
- (2) To show the density of people within each shop or restaurant or building. If the density is too high, the digital system will alert. As a result, the entrepreneurs will not allow people to enter that place.

There are two significant concerns over the Thaichana as follows (Yonstar, 2020):

#### (1) Privacy concerns

Since the government has collected the identity data such as name, surname, mobile phone number that can be linked to the ID card number, people have concerned that their privacy can be violated. Another point is that they have questioned why the government has to keep the data for 60 days which is quite a long period. The response from the government's spokesperson is that, infected people can transfer the COVID-19 disease for up to four cycles of the disease. One cycle of the disease lasts 14 days so four cycles lasts 56 days. For this reason, the government has to store the data for 60 days to cover the whole period of the infection cycle;

#### (2) Efficiency concerns

Thaichana's digital platforms are accessible for only people in big cities. Thus, the coverage of this policy implementation is just partial. Some ask the further question that, "why the government did not collaborate with mobile phone providers?" because their services cover almost all population of the country.

#### 4.2 Critique or argument on surveillance policies

OECD (2020) argues that disclosures of personal information can allow the public to better identify potential COVID-19 infections and track the spread of virus over time. However, current surveillance policies for monitoring and containment have concerns for:

- (1) Civic privacy or liberty; and
- (2) Personal data protection.

#### 4.3 Solutions for resolving concerns about surveillance policies

There are three major solutions for resolving concerns about surveillance policies as follows (OECD, 2020):

(1) Fully transparent and accountable privacy-preserving solutions should be embedded by design to balance the benefits (COVID-19 control) and the risks associated with personal data collection, process and sharing (violation or invasion of people's privacy or liberty);

- (2) Data should be retained only for so long as is necessary to serve the specific purpose for which it was collected. To address privacy concerns, the data should be deleted once the COVID-19 crisis is over; and
- (3) The governments should employ the "data anonymization." That is, make the data collected through the surveillance policies anonymous as much as possible.

#### CONCLUSION AND DISCUSSION

#### **5.1 Conclusion**

The Coronavirus (COVID-19) pandemic has been a serious threat to citizens in every country. It has impacts over citizens' lives as well as the country's economy. Moreover, it has created a new political equilibrium between the public interest and the civil liberty or privacy. The governments have tried to secure the public interest by enacting and enforcing coercion and surveillance policies in order to control the spread of the virus. However, these policies have generated public concerns about the violation or invasion of civil liberty or privacy by the governments. The key solutions to those concerns are that, the data which have been collected through the surveillance policies should be anonymized in order to protect people's privacy. Furthermore, the data should be stored as long as necessary for specific purposes. Once the pandemic is over, the data should be totally deleted.

#### **5.2 Limitation of the Study**

The study cannot point out whether the surveillance policies make citizens will to support authoritarian responses to the virus temporarily or create a civic preference for authoritarianism in a long run because the COVID-19 pandemic has recently begun. Therefore, it is too soon to conclude the situation.

#### **5.3 Recommendations for Future Research**

Two major forms of research are recommended for conducting a research in the future. The first one is to conduct a survey to collect data about surveillance policies in a large scale so that the study will show the key similarities and differences among surveillance policies in different areas of the country. Another possible form is to conduct the case study because the case study will show details of each distinct surveillance policy.

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## THE COMPREHENSIVE PERFORMANCE MANAGEMENT AND ASSESSMENT OF COMMERCIAL BANK BASED ON PCA

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#### **ABSTRACT**

The comprehensive performance management of commercial bank is the key content of the internal management of commercial bank, while the core content of the comprehensive performance management lies in the science and reasonableness by which the comprehensive performance management is established. This paper is intended to implement PCA in a head office of some bank as well as its branches, thus figuring out its feasibility of PCA in the establishment of commercial performance management and in theory its reasonableness. As a result, a theory will be found to optimize the comprehensive performance management of commercial bank.

**Keywords:** PCA (principal component analysis), Commercial Bank, Comprehensive Performance Management.

#### THE SIGNIFICANCE OF RESEARCH

As a significant part of the whole financial system and the system of market economy, commercial bank has played an important role in different areas. Thus its internal management has become an urgent area on which academic world is always focusing. In the whole management of commercial bank, comprehensive performance management is the most important tool which can be implemented in every field. Its content can be classified into compliance management, profitability management, competition management, risk management and so on.

The core content of comprehensive performance management in commercial bank is the establishment of its rules. The reasonableness and efficiency of it should be taken into account by management leaders. As a rule, this means is preferable to others in this field and to some extent it can determine the development potential and market competitiveness of commercial bank.

The establishment of current comprehensive performance management of commercial bank comes mainly from market environment, development goal, business preference. And managers set up their own rules form their own experience without the support of theoretical analysis and quantification.

At present, there are two main fields on which comprehensive performance management of commercial bank focuses: one is to assess the whole competitiveness of commercial bank from the issued financial performance; the other is to value the whole management result of some period running data and predict its future possibility. However, it remains to be seen that we should assess its reasonableness of our comprehensive performance management from the internal and accordingly we have no relative theory and tool to support.

This paper is expected to deal with such issues and may have a leading role.

#### APPLICATION OF RESEARCH

The assessment measures of comprehensive performance management of commercial bank, in general, can include assessment object, assessment time interval, indicators for performance assessment, the scoring rules etc. Among them, indicators for performance assessment is the most important factor, to which leaders attach great importance. They will give second thoughts to it and test it again and again. But, it is subjective and can not be reliable. In addition, the comprehensive performance management assessment of commercial bank has complex and diversified indicators. There are compliance management and external supervision as well as mobility, security, effectiveness. This paper is mainly related to its reasonableness of establishment of indicators.

PCA has its four advantages in analyzing data:

- 2.1 In data processing, the amount of counting can be reduced by abandoning some PCA:
- 2.2 Principal components are irrelevant to each other, which can eliminate their mutual influence. Thus it is easier to choose the indicators.
- 2.3 In the comprehensive function, the weight of the principal component is the contribution rate of each component, which can reflect their relation. By doing so, it is relatively objective and reasonable.
  - 2.4 Its computing is well regulated and easy to deal with on computer.

Having discussed above, PCA has its role in the comprehensive performance management of commercial bank.

#### SAMPLE DATA

This paper selects the recent comprehensive performance assessment data of the top 4 large state-owned commercial Banks in China as the analysis sample, and selects the assessment results of a first-level branch to its second-level branch in 2019 at the data level. It's going to be eliminated in terms of the specificity of some individuals. There are a total of 20 data samples, including two small branches with incomplete assessment indicators and 18 sets of remaining sample data.

#### **ANALYSIS**

KMO test and Bartlett mathematical test are usually used to determine whether the data is suitable for principal component analysis. The specific determination is as follows:

First, analyze the KMO value; If this value is higher than 0.8, it means that it is very suitable for analysis. If this value is between 0.7 and 0.8, it means that it is more suitable for analysis. If the value is between 0.6 and 0.7, then analysis can be performed. If the value is less than 0.6, it is not suitable for analysis.

Second, if the P value of Bartlett test is less than 0.05, it is also suitable for principal component analysis.

The evaluation of the secondary branch plan implement QianFenZhi, 34 set index, to analyze the effectiveness and simplicity, we will find out 18 branches in the average of the 34 indexes, some indicators of score less in delete, then choose one of 18 indexes account for 95% of the overall average weight, can be on behalf of the assessment results.

According to the number of assessment indicators, the analysis samples were named as sample 1 to sample 7, and seven samples were used for principal component analysis using SPSSUS. The results of KMO value for the number of indicators, the proportion, the applicability of principal component analysis, and the P value from Bartlett test were as follows.

Table1 Sample situation table

The sample name	Index situation
Sample 1	Internal control evaluation, operating income, non-performing loans (NPLS) control, economic added value (years), net income per capita, average daily personal core deposits, intermediate business income, non-performing loan collection, per capita net income, daily average probability core deposits, the movement responsible party construction, number of non-performing loans to generate scene merchants, Internet consumption, the crucial poverty
	scenario, the Internet industry chain businesses, brought to customers, personal palm toward silver active customers, active online customers.
Sample 2	Internal control evaluation, operating income, non-performing loans (NPLS) control, economic added value (years), net income per capita, average daily personal core deposits, intermediate business income, non-performing loan collection, per capita net income, daily average probability core deposits, the movement responsible party construction, number of non-performing loans to generate scene merchants, Internet consumption, the crucial poverty scenario, the Internet industry chain stores.
Sample 3	Internal control evaluation, operating income, control and control of non-performing loans, per capita ECONOMIC added value (annualized), net profit, average daily personal core deposit, intermediate business income, liquidation and disposal of non-performing loans, average net profit, average daily core deposit to the public, responsibility construction of party conduct and clean government, the number of non-performing loans generated.
Sample 4	Internal control evaluation, operating income, control and control of non-performing loans, per capita ECONOMIC added value (annualized), net profit, average daily personal core deposit, intermediate business income, settlement and disposal of non-performing loans, average per capita net profit, average daily public core deposit.
Sample 5	Internal control evaluation, operating income, non-performing loan control, per capita ECONOMIC added value (annualized), net profit, average daily personal core deposit, intermediate business income, non-performing loan settlement and disposal, per capita net profit.
Sample 6	Internal control evaluation, operating income, control and control of non-performing loans, per capita economic added value (annualized), net profit, average daily personal core deposit, intermediate business income, liquidation and disposal of non-performing loans.
Sample 7	nternal control evaluation, operating income, non-performing loan control, per capita ECONOMIC added value (annualized), net profit, daily personal core deposit, intermediate business income.

**Table2** Sample applicability analysis table

The sample	<b>Index number</b>	<b>Proportionality</b>	<b>KMO</b>	The P value of
name				<b>Bartlett inspection</b>
Sample 1	18	100%	0.128	0.00
Sample 2	15	95%	0.453	0.00
Sample 3	12	90%	0.538	0.00
Sample 4	10	83%	0.704	0.03
Sample 5	9	77%	0.721	0.03
Sample 6	8	72%	0.618	0.012
Sample 7	7	65%	0.538	0.022

It can be seen from the above table that from a mathematical perspective, the P values of Bartlett test in all the analyses show that they are suitable for principal component analysis, but the KMO values show that the applicability of samples 4, 5 and 6 is more obvious. The mathematical applicability of pca in samples 4 and 5 is the strongest, and gradually decreases.

Through observation, we can find that sample 4 and sample 5 contain a main indicator of the bank's development, and delete some non-important indicators such as customer category and party construction, which are often marked with greater subjectivity.

Thus it can be seen that pca is highly applicable to the evaluation of subject indicators when analyzing pca in the comprehensive performance assessment of commercial Banks

#### **CONCLUSION**

- 5.1 Through analysis and comparison with the actual situation, pca is highly applicable to the evaluation of subject indicators when analyzing pca in the comprehensive performance assessment of commercial Banks.
- 5.2 Due to the diversified operation of commercial Banks, especially large stateowned commercial Banks in China, the power of the government and the subjective judgment of main leaders will have a great impact on the comprehensive performance assessment of branches.
- 5.3 Therefore, to evaluate the comprehensive performance of commercial Banks by principal component analysis, the above factors should be taken into comprehensive consideration and the interfering factors of response should be reasonably eliminated. Principal component analysis can provide reference for commercial bank's comprehensive performance assessment.

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# STUDY ON THE INFILTRATION OF CHINESE TRADITIONAL CULTURE IN THE TEACHING OF AESTHETIC EDUCATION IN COLLEGES AND UNIVERSITIES

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#### **ABSTRACT**

Colleges and universities have always been the pioneers in the implementation of curriculum reform in China. With the quality education deeply rooted in the people's mind, efficient aesthetic education has become more and more important. The purpose is to effectively optimize the aesthetic quality of students and form a sound aesthetic consciousness. Among them, college students also shoulder the great mission of inheriting and innovating Chinese traditional culture and actively participating in the rejuvenation of Chinese traditional culture. Therefore, the aesthetic education teaching in Colleges and universities should also actively penetrate Chinese traditional culture, so as to build a characteristic aesthetic education course in Colleges and universities. In this paper, we will carry out rich traditional culture display activities, develop rich local resources, and organize aesthetic education based on traditional culture. From three aspects of practical activities; this paper analyzes how the aesthetic education in Colleges and universities should actively permeate the traditional culture.

**Key words:** college aesthetic education, traditional culture, integration strategy

As we all know, China is a great cultural country with a history of five thousand years, and the traditional culture of the Chinese nation is a cultural system formed through historical precipitation, baptism and innovation. It is the essence of the Chinese nation, and also the cornerstone of our national feelings such as cultural self-confidence and national identity. In the teaching of aesthetic education in Colleges and universities, the most important basic task is to optimize students' ideological understanding, cultivate students' sentiment, and form a sound personality and outlook on life, world outlook and values. In this process, Chinese traditional culture plays an important role, because the rich traditional culture education can effectively stimulate students' deep national identity and pride, make them consciously inherit and innovate the essence and connotation of traditional culture, so as to effectively improve students' ideological cognition. Therefore, the aesthetic education in Colleges and universities should actively integrate traditional culture, and make adequate preparation for the future growth of students.

#### 1. Carry out rich traditional culture exhibition activities.

If we want to infiltrate the traditional Chinese culture into the aesthetic education of college students and let them consciously participate in the revival of the Chinese nation, the first thing we need to do is to let the students understand the traditional culture correctly and make it be impressed by the richness and advanced nature of the Chinese traditional culture. Therefore, the aesthetic education teachers in Colleges and universities should actively organize rich traditional culture display activities, increase publicity efforts, effectively attract the attention of college students, and make them consciously participate in the inheritance and construction of traditional culture.

In order to strengthen publicity, the author will regularly organize traditional culture exhibition activities in the university student activity center, such as folk crafts exhibition, Chinese traditional crafts performance, calligraphy competition, handmade competition, etc. These exhibition activities can not only enrich the extracurricular life of college students, but also make them further understand our traditional culture. In addition, the author will invite some craft inheritors to our school to publicize a certain traditional culture, such as stone painting, clay sculpture, sculpture, etc., so that students can fully realize the profound traditional culture and inspire the deep sense of pride and honor of students. Moreover, due to the large number of traditional culture projects, most students can find the traditional culture activities they are interested in in in the exhibition activities, which effectively expand the audience of aesthetic education, and effectively promotes and propagandizes aesthetic education.

#### 2. Develop rich local resources.

The regular school teaching will organize the subject teaching according to the teaching material content step by step, but the aesthetic education teaching in Colleges and universities is very open. Even if the aesthetic education curriculum materials are created, there is still a great space for innovation. It is the aesthetic education teachers in Colleges and universities to develop the school-based curriculum according to the local resources and the needs of teachers and students in the school, so as to build a characteristic curriculum system. Therefore, college aesthetic education teachers have the ability to develop local resources, let students fully understand the traditional culture of each region, so as to effectively expand students' cultural vision and optimize students' aesthetic perception.

In order to organize a variety of aesthetic education teaching activities and enhance the cultural consciousness and self-confidence of students, the author will investigate the traditional cultural knowledge of interest to all students, such as traditional clothing, local traditional food, local historical development and architectural features, etc., and then set up a rich school-based curriculum based on this, and comprehensively develop local resources, so as to fully satisfy the class Students' development needs. For example, some students are very interested in the local traditional houses and architectural features, so the author organized this part of students to the local folk villages or some villages with original architectural features for on-the-spot investigation, carefully observed the local architectural style, and comprehensively investigated the local regional culture and natural conditions, combined with the characteristics of traditional buildings for aesthetic appreciation.

#### 3. Organizing practical activities of aesthetic education based on traditional culture.

Under the modern education system, the conventional teaching mode centered on "classroom, teaching materials and teachers" has been criticized and criticized, because this teaching mode will appear the problem of knowledge and practice disjointed, so now colleges and universities pay more and more attention to comprehensive practice activities, and enrich the practical experience of college students through rich and colorful community activities, discipline practice and practical training activities. Then, in the teaching of aesthetic education in Colleges and universities, teachers should also actively organize aesthetic education practice, guide college students to experience the essence and charm of traditional culture in real life, let students experience the inheritance and innovation of traditional culture, and make them imperceptibly optimize their cultural self-confidence.

For example, in order to spread traditional culture, the author organized a variety of community activities, such as embroidery community, calligraphy community, cheongsam community, Hanfu community, etc., to encourage college students to choose their own interested community activities and explore rich traditional culture together with like-minded

friends. In addition, the author also calls on college students to actively visit museums, historical memorials and other collection rooms that are conducive to understanding Chinese culture and history, and enrich students' cultural experience with the help of professional cultural explanations.

In a word, the teaching activities of aesthetic education in Colleges and universities are related to the development of College Students' mind, morality, character and personality, and play an important role in their future life. Then, in order to make college students grow into excellent talents in line with the requirements of the new era, and cultivate a group of qualified socialist successors, college aesthetic education teachers should actively permeate traditional culture in aesthetic education teaching, cultivate students' national self-confidence and cultural identity, and make them consciously inherit and innovate our traditional culture.

#### THE IMPACT OF ONLINE GAMES ON SOCIETY

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#### **ABSTRACT**

No one denies that in the Internet age, the Internet promotes the development of society, makes people's life more convenient and improves people's living standard. As the carrier of information technology, it has become an important tool for people's work, study, life and entertainment. The development of the Internet has brought great convenience to people, who can share a large amount of information across the boundaries of time and space. The content of the network market is constantly enriched, so that we can do not leave the house to know the world without going out.

one The advantages of social development under computer network. The Internet era broadens people's horizon, keeps abreast of current affairs and news, and obtains all kinds of latest knowledge and information. Can chat without scruples with net friend, pour out one's heart, reduce schoolwork burden, alleviate pressure; Can improve their own level of a hobby, and so on

two The computer network has a negative impact on social development, and bad information poses a potential threat to the formation of young people's outlook on life, values and world outlook. The unhealthy information and cyber crimes on the Internet pose a threat to the physical and mental health and safety of teenagers. Many teenagers indulge in the virtual world of the network, divorced from reality, and some teenagers neglect their studies. Some traditional cultures, such as craftsmanship, are gradually forgotten. People's work and life are less and less influenced by the social environment, and the human body is likely to degenerate as computers replace a large part of our work. Similarly, due to the decrease of direct communication between regions, it will become impossible for different races, cultures and customs to complement each other, many different ethnic advantages will not be learned, and the quality of human society will be greatly reduced.

Conclusion. In the computer network era, people's use of computers and the Internet will inevitably penetrate into all aspects of social production and life, through the functions of computers and networks, will give enterprises production and business activities as well as people's work and life to bring great convenience. The development of computer network is a sign that human civilization has entered a higher stage. It promotes the development of human society towards a more modern direction and promotes the arrival of the era of knowledge economy.

#### INTRODUCTION

#### 1.1 research background

In today's society, science and technology are more and more developed, science and technology is the crystallization of human labor and the wisdom of human beings, the progress of science and technology has driven the material civilization of the human world. With the progress of science and technology, the products of science and technology come

into being, the popularization of computers and more and more functions of mobile phones come into people's side and family, and human beings enter the era of science and technology. The popularity of computers and mobile phones is also driving a new cultural product - online games. And online games have also rapidly developed into a new industry. The network game also is in IT technology and the Internet technology improvement but produces, the new technology has improved the game technology. It has changed the expression form of the game and even the playing method of the game, but it has not changed the essence of the online game which belongs to the cultural products. It satisfies the elevation of the human spirit. The integration of online game industry and traditional culture and entertainment industry is accelerating, and online game has become a popular symbol in today's society. Therefore, the online game product is not only a kind of commodity, but also has the cultural attribute, undertakes the cultural dissemination mission. The development of online game industry should not only attach importance to economic benefit, but also attach importance to social benefit. On the one hand, the online game content itself has a strong cultural color. The content of the game, whether it is the scene, the setting of the characters in the game, or the design of the game mechanism, has inherited the spiritual wealth accumulated by human beings in the past thousands of years. On the abstract level, it reflects the national values and beliefs, and on the image level, it forms tangible products. On the other hand, the influence of online games has radiated into the traditional cultural entertainment fields such as movies, music, advertisements and literature. In recent years, online games and other industries enterprises a lot of different industry cooperation, such as adapting literature online games, will be the same name for online games, television programmes to network game and film marketing cooperation, specifically for online games makes the game music, etc., many of the traditional culture in the entertainment industry companies into the field of online games, online game companies are trying to enter the film, literature, etc.

#### 1.2 problem statement

The network is a double-edged sword, is both beneficial product, is a scourge, and this network game is the bane, the network game is just an unreal world. There are many reasons for minors to indulge in online games. One is the setting and content of some online games, easy to cause minors to indulge. Second, at present, minors are facing the problem of insufficient places for off-campus activities. Third, at present, the spiritual entertainment products for minors are not rich enough to meet the minors' strong curiosity, thirst for knowledge and the desire to participate. Fourth, part of the family to the children's education mode is inadequate, responsibility is not enough. And how many people are addicted to it. Just because, it can bring us temporary happiness and excitement. After the fun? Only boredom, emptiness, and fatigue remained. When you have a moment after the fun, you will find in fact once again empty. What can games bring to me? Can't! It can only satisfy your momentary desire. In the future? Do you depend on it for your whole life? From now on, you can succeed only by your own efforts. To make a career. The Internet opens up before our eyes an endless forest of information. And we are at an age of curiosity. Therefore, the problem of minors' addiction to games needs the participation of the whole society, from legislation and law enforcement, activity places and environment, spiritual products suitable for minors, family education and other aspects of comprehensive solution, to help minors to use the network health, correct treatment of online games.

#### 1.3 research problems

Addicted to the Internet, will waste valuable time. The network is virtual, has the great concealment, the complexity and the temptation. In his acceptance speech, the 88-year-old Nobel prize-winning author said: "the Internet has had a huge impact on people's ability to think, seducing a generation with its nothingness. Even when rational people realize they're

hooked, they're hooked." What he said is not without reason. If a person bubble all day in the Internet cafe, it must be no ambition and no initiative, can only kill people's time. Everything has a degree, do the network this degree, is the real network life. Addicted to the Internet, will cause physical and mental damage. Everybody knows chasing underage heat cannot enter net cafe, the purpose is to protect their physical and mental health, let them study well, become a country useful t in the future, but, the owner of a lot of net cafe especially black net cafe, in order to profit, violate the regulation to accept underage to surf the net. An excellent study of children, as long as addicted to Internet cafes, academic performance will be a drop dry zhang. The reason is very simple, the network game or chat tool has a very strong temptation, once dip into extricate oneself, some even go astray. Most of the children on the Internet cafes are often behind the back of their parents and teachers secretly to go, since to consumption, once there is no money, will go to borrow, even to steal, to rob, on the road to crime, some will also attract a killer.

#### 1.4 research objectives

The purpose of this study is to figure out solutions based on the impact of online games on teenagers, teenagers, young adults and middle-aged adults, and then analyze the harm of online games on them, physical and mental, academic, ideological, and life goals. How to prevent Internet addiction. Learn how to prevent infatuation, addiction to online games. Develop good entertainment habits. Through the collection of information, interviews and questionnaires, exhibitions and exchanges to achieve the goal.

#### 1.5 research significance

Improve the people addicted to the Internet, develop a healthy and progressive outlook on life, goals, most of the online game addicts do not have a good outlook on life or goals. In the experience of a setback will be discouraged, escapism. Therefore, it is necessary for the university to carry out this kind of psychological counseling on campus. Don't let contemporary college students waste their youth in a virtual world. Improve the university management system and create a good learning atmosphere. To observe the phenomenon of truancy and truancy in every university. And the school also acquiesces in this phenomenon, which has made students subconsciously think that truancy is not very serious. Therefore, this phenomenon is becoming more and more serious in colleges and universities. In order to create a good learning environment for students, schools must give students certain punishments. Let the students know the seriousness of the situation. Set the right career and life goals and strive for them

#### LITERATURE REVIEW

Key words: computer, network, influence, Internet, economy, network game.

Online games not only do harm to the society but also have many benefits. The most direct benefit is to drive the economy.

#### 2.1 new highlights of economic growth

Into the 21st century, China has been vigorously developing the Internet, a large number of Internet cafes, broadband Internet access nationwide popularity, and the development of online games just caught up with this ride. From the network game input aspect consideration, the above condition is extremely advantageous. When the network game is in the development of more customers, greatly reduce the marginal cost, more importantly, can ignore the geographical span of the limit, thus reducing a large number of capital investment. This also makes online games become less input, more output of a sunshine industry, and in a short time to jump into the national economy of the new bright

spot. The specific situation of the growth of the market scale of online game industry in China is shown in table 1:

As can be seen from table 1, the market size of online game industry in China has been growing steadily, and it exceeded 10 billion in 2007. The rapid and steady growth of the online game industry and its own characteristics of low investment, high output, low energy consumption, low pollution make it a dazzling national economy.

2.2 (ii) the pulling effect of online game industry on other industries

Since 2002, the game industry has become a new economic bright spot and a powerful lever to drive the industry economy in China's provinces, regions, municipalities and even all over the country. It is estimated that in the search engine, network advertising, network education, E-mail, network SMS, network games and other major Internet profit model, the proportion of online game profit is 20%. According to data released by sadie, online games in China are by far the most profitable of all Internet apps, accounting for 35 percent of the app services market

In 2005, for example, the revenue of telecom business related to online games was RMB 17.34 billion; the revenue related to IT industry was RMB 7.16 billion; the revenue related to publishing industry was RMB 3.71 billion; the overall contribution of the game industry to its related industries exceeded RMB 30 billion.

2.3 the online game industry in China under the financial crisis

Under the influence of the world financial crisis in 2008, many industries showed negative growth. However, the online game industry did not show negative growth, and the growth rate was basically the same as that in 2007, showing a very good development trend. Released in the 2008 annual China game industry annual meeting of the "2008 annual China game industry report" shows that in 2008 China's online game users reached 149.36 million, the market actual sales revenue reached 18.38 billion yuan, increased by 16.6% over 2007, appear this kind of circumstance of the reason is that the Internet has made the game between consumers and industry is almost face to face, extremely flat sales channels and clubs in the channel layer upon layer pressure accounts, accounts receivable huge problems such as maximum limit reduces the risk of shortage of funds. "Some people say that online games are a safe haven in the financial crisis," said qiubojun, chairman and CEO of kingsoft.

The consumption level of Chinese residents is getting higher and higher, and the demand for spiritual life is getting higher and higher. As the entertainment industry, the development of online games will inevitably bring some negative effects, causing a series of social problems. But all things need to split view, a key period of economic transformation in the country, is similar to the network game such low cost, high yield of pure service industry, should be as the key areas to develop the third industry, at the same time try to reduce its adverse effects in the process of development, not timid, stop-and-go. It should be noted that cities with developed cultural industries, such as Shanghai and hangzhou, have regarded online games as the biggest development opportunity in the creative industry in recent years, and issued a series of relevant policies, which is the best interpretation of the future development prospect of this industry.

#### THEORETICAL FRAMEWORK

The editorial department of this journal, jiangnan. Network: let people happy let people worry [J]. Friends of junior high school students, 2004, (Z5)

Zhang jianbo, Lou dongsheng, shi yuhua. The impact of computer network on human society [J]. Statistics & consulting, 2001, (03).

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The influence of Internet on society [J]. Foreign social science, 2005,(02).

3.1 with the advent of the information age, the digital information revolution is dramatically changing the way people work and live. The digital revolution calls out new technologies, and the Internet is one of its development products. But every coin has its two sides, so does the computer network. The network has its advantages and disadvantages, we must have the correct use of it, in order to truly serve the social development. With the rapid development of network technology, the Internet has penetrated into thousands of households. It has changed our traditional way of thinking, to give us a great help: sitting at home can browse a lot of books; Within minutes letters were received from miles away; In the shortest time to obtain the information they want to know; Through the distance education network, to learn more knowledge and so on. Generally speaking, children's appreciation and taste are mostly influenced by their parents, thus producing the same or similar interests and hobbies with their parents. Although computer network can bring so many advantages to the development of our society, if we don't make the right use of the network, it will also bring a lot of harm to the development of our society. Although computer network can bring so many advantages to the development of our society, if we don't make the right use of the network, it will also bring a lot of harm to the development of our society. In the treatment of Internet resources, parents can find meaningful information together with their children, and actively discuss, to develop their ability to distinguish and correctly process information. Parents should also actively cooperate with the school to organize their children to participate in meaningful, positive and colorful activities to cultivate a wide range of interests. Advocate to let children go outdoors, to practice to experience and feel the nature, the world of society, and let them in a harmonious natural environment, in the colorful social exchanges, really cultivate the good quality of love life. At present, what we need to do is to study the network continuously, so that we can have the right understanding and understanding of it, and be able to make the right use of it.

3.2 for modern society, the popularization and development of computer network has exerted an innegligible impact on the productivity and living standard of the society and other aspects. In particular, Internet technology, as a necessity of production and life, has assumed an increasingly high social status and social role. The network will promote the development of social productivity at a faster speed. On the positive side, I think the most representative one is the positive role of network technology in social development. As an important symbol of advanced productive forces, science and technology play a very important role in promoting social development. Each scientific and technological revolution has caused, to varying degrees, profound changes in the mode of production, the way of life and the way of thinking, and tremendous social progress. Human society has experienced several technological revolutions, and the arrival of the computer network era will fully spread a new round of scientific and technological revolution. Through computer and Internet technology, the dissemination of information and the development of technology will be unprecedentedly accelerated, people will understand the information, the way and speed of information dissemination will be increasing, the timeliness of information will be more effectively strengthened. New material, new energy development and utilization of the technology will also get a better development in the era of computer Internet network, to promote science and technology as the first productive force of human economic and social development status has become increasingly apparent, even will make science and technology to a large extent the decision on productivity of the size of the decisive factors of computer and Internet network role in every aspect of human society, through the network technology, it will give the units at all levels of management activities associated with the conduct and the working life of the masses and so on to bring great convenience, achievements today, the development of computer network, is a milestone in human civilization into a higher stage, It will push human society to a higher stage of development. And some of the new material, new energy development and utilization of technology will also gain great development in the process, to promote science and technology as the first productive force of human society is more prominent, and it may even make escalated into an independent power of science and technology in the process of material production, productivity of the size of the decisive factors and become the decision. Contradiction always everywhere, the key is how humans play their subjective initiative proper adjustment, in the case of a contradiction inevitably exist, not do more harm than good in the largest extent the network brings us convenient and successful beyond imagination at the same time, also brings more challenges to the human society, challenges and opportunities coexist, however, we should be positive to meet challenges, and grasped the computer network era brings new opportunity, efforts to promote the human society towards a higher stage.

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# HIGH PERFORMANCE ORGANIZATION, ENTREPRENEUR ORIENTATION, TECHNOLOGY MANAGEMENT AND ORGANIZATION INNOVATION MANAGEMENT INFLUENCE ON SUSTAINABLE DEVELOPMENT IN THE AUTO PARTS INDUSTRY: A CONCEPTUAL MODEL

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#### **ABSTRACT**

The spirit and background of this research recognizes the importance and the need to create research that indicates conditions, trends, changes and factors affecting the management system in Organization in factories of auto parts manufacturers within the framework of having to be ready and able to go deep into the strategic framework for setting up a management system and improving the capacity building capacity of the organization in many dimensions. In each story, each part in a holistic this includes ways to reduce the loss of opportunity from future changes in each economic region and to be able to point out the future. Including new opportunities that will arise during the transformation of the industrial ecosystem. All of them are linked based on sustainability in the automobile parts industry. Establish a strong supportive approach to each of the key areas in the research variables, giving the overall picture of the business, the organization of the auto parts manufacturing industry to be able to sustain itself and sustain itself in business. Change at a very high current acceleration.

**Keyword**: Organization Innovation management, Entrepreneurs Orientation, High performance organization, Technology management, Sustainable development.

#### **INTRODUCTION**

This reflects the current state of change and possible trends soon, from the global situation, social, economic, and environmental, that drive various types of automotive innovations according to market needs. In addition, the policy guidelines for the industrial ecosystem in the region of Asia and investment promotion policy in the automotive and automotive parts industry Researcher, as a career in the automotive industry, where the organization is involved in the value chain and the supply chain in the automotive industry in Thailand. Has created a Tools and Assessing in the analysis of variables including Entrepreneurship, Innovation management, High performance organization, Technology management and Sustainable development for establishments that produce auto parts. Autoparts enterprises in Thailand to study the level and significance of the variables on entrepreneurship. Innovation management High performance organization Technology

management and sustainable development to analyze causal influences and relationships of variables Entrepreneurship Innovation management High performance organization Technology management Affecting sustainable development Conveys ideas to suggest ways to develop and improve for auto parts manufacturers in Thailand and to create sustainability for domestic auto parts industry operators. Integrative Literature Review for Theoretical and Conceptual Back ground of Each Factor.

#### LITERATURE REVIEW

This research is a comprehensive review of ideas, theories, literature and various research works that are connected and related to Entrepreneurship, Innovation Management, High Performance Organization, Technology Management and Sustainable Development of Thai Auto Parts Manufacturing Enterprises To bring the variables of the operator Innovation management High performance organization Technology management and sustainable development of Thai auto parts industry establishments to build and analyze tools and then evaluate and verify with automotive parts establishments that manufacture parts for delivery to industrial plants. Car assembly in Thailand which collects the information gathered for analysis to provide guidance on management and development to guide the creation of sustainable development for establishments in the Thai auto parts industry.

#### 2.1 Sustainable development

A fundamental process for holistic development to be inclusive and balanced. Carefully consider all aspects of both the social and economic environment. Providing opportunities for all parties to participate in the development Consider holistically in terms of engagement. Considering the links that arise on the diversity of different economies, consider the development of competitiveness on the basis of their own resources. Society and Environment Focus on the needs of all parties related to the social and cultural context. and does not have a negative impact on future developments. The concept of sustainable development generally encompasses three dimensions: the economic dimension, the social dimension (with human capital, the factor of happiness and the base of economic value creation), and the natural resource dimension (including education and environment) to achieve the process. Developing more integrated sustainable education It operates under the following key elements: 1) competitiveness based on institutional resources and capabilities, 2) the ability to meet the needs of the organization and stakeholder groups, and 3) the ability to Adaptation to local and international contexts by integrating the principles of 21st century learning (Concepts on Post Graduate Education for Sustainable Development, Waraporn Chau-In., 2012.).

#### 2.2 Innovation management

Process of managing and improving the management and production efficiency of auto parts manufacturers in Thailand. That need to be improved Change And apply it to the organization to move into the framework of sustainability in 3 areas: economy, society and environment. (Sustainable Development: Ananta chai Yoon Prathom, Charaswan Kittisuntharakun mawicha yaphon banchawachirachai, Saowaporn Witthavornnariratana, Santhaya Tijiwassatipyanon.,2014)

# 2.3 Entrepreneurship

The innovative ability of the individual to the ability to transform ideas (Idea) and operating for socio-economic purposes (Vij & Bedi, 2015) into a process. Action to create dynamic change through new resource deployment (Swedberg, 2007; Nunes, 2016) Entrepreneurship must consider the environment. Diagnose the possibility seek the necessary resources interpret the environment as an opportunity to action, generating profits from operations (Nelson & Johnson, 1997). New product presentation New operating methods, new markets, new supply sources, and new organizational models (Schumpeter, 1934) are the predictors of corporate success (Kraus etal., 2012), (Pimkanada Chanda Huadong, Ploy Phan. Teach Suwit., 2018.)

# 2.4 High performance organization

Abbreviated as HPO, some are known as Excellence Organization. At present, there are many departments, both the private and government sectors of Thailand, have focused on and brought various administrative tools to develop departments to advance to High performance organization For important government sectors such as the Ministry of Energy And the Petroleum Authority of Thailand Has clearly set a goal to drive the organization to become HPO, which the management of the agency has given great importance to this change. For the definition of high-performance organizations Is to be a good organization there is clearly a plan to support various conditions. The situation is analyzed that can affect the work from all angles. This makes it possible to perform missions, achieve objectives with efficiency, on time, and excellent quality of work. Be accepted from this definition, in the past we only looked at each other as a good organization or agency. Or with high performance, that is, an organization that can work to achieve the goals that define the internal system of the organization (Source: https://reg1.pwa.co.th/km/?p=33, Learning Organization., 2012.)

# 2.5 Technology management

The process of adopting systems, equipment, tools, machines, methods and techniques Practices or interactions are used in business processes to promote efficiency. And higher productivity to be consistent with the context of constantly changing business processes (Source: Innovation Management, Management Skills and Production Technology on the Competitive Potential of Thai Auto-part Enterprises, Chartkaew Hartrawang., 2012.)

# The links between key variable to confirm the Relationships between them.

Study the relationship between each other according to the conceptual framework Findings from the investigated research It also pointed out the study issues and the evidence of correlation as described in the model as shown in Table 1.

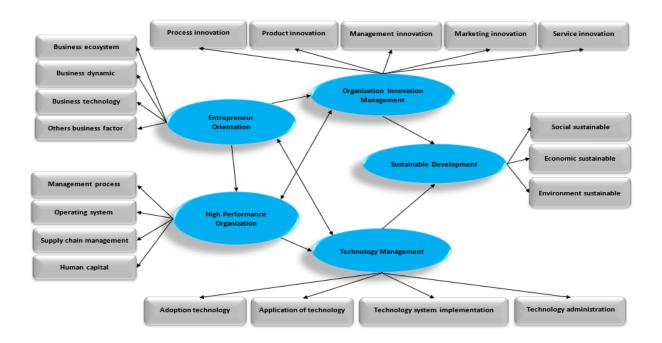
# **Developing the Conceptual Model**

Table 1 Linking between relationship of key variables.

Linking between key variables.	Scholars in related research results	
Innovation management & Sustainable development	Steve Kennedy, Gail Whiteman, Jan van den Ende., (2017), Bettina B. BOCK.,	
	(2012), Tachia Chin, I.M. Jawahar, Hao Jiao., 2019.), Marcel Bogers, Henry	
	Chesbrough, Robert Strand., (2019), Mariia Ermilova, Tatiana Maksimova, Olga	
	Zhdanova, Dokhoyan Zohrab., (2019),	
Innovation management & High performance organization	Bahadur Ali Soomro, Shahnawaz Mangi, Naimatullah Shah., (2020), Servet	
	Nasifoglu Elidemir, Ali Ozturen and Steven W. Bayighomog., (2020), I Gede	
	Riana, Gede Suparna, I Gusti Made Suwandana, Sebastian Kot., (2020), Mirela	
	Jeffman dos Santos 1, Marcelo Gattermann Perin, Cláudia Simões, Cláudio	
	Hoffmann Sampaio., (2020), Jorge António Barbosa Ferreira , Arnaldo Coelho,	
Entrepreneurship & Innovation management	Bahadur Ali Soomro, Shahnawaz Mangi, Naimatullah Shah., (2020), Liliya	
	Satalkina and Gerald Steiner., (2020), Heru Sulistyo, Sri Ayuni., 2019), David B.	
	Audretsch & Maksim, Belitski & Rosa Caiazza3 & Erik E. Lehmann., (2020),	
	Massimiliano Vescil , Antonio Botti , Rosangela Feola & Chiara Crudele., (2020),	
	Liliya Satalkina and Gerald Steiner., (2020)	
Entrepreneurship & Technology management	David B. Audretsch & Maksim, Belitski & Rosa Caiazza3 & Erik E. Lehmann.,	
	(2020), Liliya Satalkina and Gerald Steiner.,(2020), Riccardo Fini, Einar	
	Rasmussen, Johan Wiklund, Mike Wright., (2020), Chris McPhee, Editor-in-	
	Chief, Ferran Giones and Dev K. Dutta., (2019), Nasim Roustapisheh, Hossein	
Entrepreneurship & High performance corperate	Przemystaw Zbierowski., (2020), Heru Sulistyo, Sri Ayuni., (2019), AYE	
	RIZVANDI, FARSHAD TOJARI., (2019), Edy Susanto, Budiyanto, Suhermin.,	
	(2020), Sundas Khan, Sabeen Hussain Bhatti, Umer Zaman (Corresponding	
High performance organization & Technology management	Mirela Jeffman dos Santos I, Marcelo Gattermann Perin, Cláudia Simões, Cláudio	
	Hoffmann Sampaio., (2020), Paitoon Chetthamrongchai, Kittisak Jermsittiparsert.,	
	(2020), Yongan Zhang, Umair Khan, Seoyeon Lee and Madiha Salik., (2019),	
	Shaul Kimhi, Yarden Oliel2., (2019)	
Technology management & Sustainable development	(Jiani Wu, Nguyen Khoi Tran., (2018), Edmundas Kazimieras Zavadskas , Jurgita	
	Antucheviciene, Tatjana Vilutiene , Hojjat Adeli., (2017), Bokolo Anthony Jnr.,	
	Mazlina Abdul Majid and Awanis Romli., (2018), Marylyn Carrigan, Solon	
	Magrizos, Jordon Lazell, Ioannis Kostopoulos., (2020), Mohamed Ally, Norine	

# Conceptual framework of this paper.

After studying to find findings from relevant research around the world and summarize relationships and links to form a conceptual framework. Including Entrepreneurship Innovation Management High performance organization Technology management and sustainable development for leading to analysis of an international standard approach for creating sustainability in the automotive parts industry.



### RESEARCH METHODOLOGY

# 3.1 Research design

Conducted research in a mixed methodology. Step 1 Quantitative research. (Quantitative research) is conducted by collecting data from questionnaires. (Questionnaire) to find answers on the concept High performance organization Entrepreneurship Technology management and innovation management Influence on sustainable development in the auto parts industry in Thailand From a sample of 460 people, data was collected and analyzed by using statistical analysis and Structural Equation Modeling (SEM). Step 2 was performed by qualitative research. Related research and an in-depth interview (In-depth interview), an expert who is the executive of the automobile parts industry enterprises. And 10 executives of automobile assembly plants in Thailand to confirm and find the consistency between high performance organizational parameters Entrepreneurship Technology management and innovation management Influence on sustainable development in the Thai auto parts industry.

### **RESULTS AND FINDINGS**

### 4.1 Descriptive analysis.

This study is to build on this research as part of a wide variety of ideas aimed at the development of sustainable automotive parts industry. On the principle of conservation of resource consumption Inclusion of social stakeholders and sustainability and grow in economic business in the context of the set concept. With innovative principles as the basis of this research.

### CONCLUSION AND DISCUSSIONS

The results of this research laid out a key, hierarchical approach in the research framework in the work of the organizing topic in order to hierarchy the sections that are put in place in the framework of the marketing and management process. Service, entrepreneurship, management of business communication systems, dynamics, technology and other elements of business, high-performance organization, vocal performance, inefficient stakeholder training, knowledge management, capital and results. Implemented, organized, lateral coordination, deployment and management training, including elements that complement and coordinate with each other to contribute to the advancement of the auto parts business in Thailand.

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# INNOVATION PUBLIC SECTOR DEVELOPMENT QUALITY AND ADMINISTRATION AND DYNAMIC CAPABILITIES TO HIGH PERFORMANCE ORGANIZATION

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### **ABSTRACT**

The purpose of this research is 1) Focus on the level of innovation **public sector development quality** and dynamic, which can influence of being the high-performance public organization 2) To study the standard level in **public sector development quality**, which affects the development of bureaucracy, and. Lifting the quality of performance related to Royal Decree on moral corporate government rules and procedures and good governance 3) Researching the relationship and factors affecting the success of **public sector development quality** can used in the organization.

The focused population for this research were executives, supervisors of 420 people. The statistic results found that seven factors affect public sector development quality. 1) Organizational leadership (vision, values, direction) 2) Setting the strategy (it is including risk management, communication, organization goals, and the indicators to organization/ individual) (implementation of strategy) 3) Priority on service recipients and stakeholders (Feedback from participant, satisfaction survey) 4) Analysis and knowledge (information management) 5) Human resource management (Focusing on human resource, HRM and HRD, moral and responsibility) 6) Process (Reduction of step of working process) 7) Result of operational. Dynamic capability variables, there are five main variables role of leadership 1) Leadership role 2) Law and regulation and policy 3) Human resource 4) Corporate culture 5) Environment factor. As a result of this thesis that can measure performance, good governance, and administration and public bureaucracy efficiency. The elevation of public sector development quality resulted in better performance in goods and services linked to the empirical data. Research can concluded that 1) The government has been improved public administration through which overall performance is at a high level 2) Standard of public administration resulted in better performance in both productivity and services at a moderate level 3) Relation test using structural equation statistics found that improvement of public sector development quality and dynamic capability affect higher performance and efficiency of the public sector performance.

**Keywords**: Good Gevernance, dynamic ability, public sector development quality

### INTRODUCTION

Thai bureaucracy has gone through several meaningful reform. In the year 2540, There was a Prime Minister` office regulation. Mentioning about reforming the bureaucracy for the first time and setting the master plan for reform bureaucracy (between 2540-2544). It has done by setting two principles, which are

Principle 1: Adjustment of the roles, duty, and sizes of government organization.

- Principle 2: Innovate the operation system of government organization. The following has used the principle
- 1) Divide the authority, grouping of the mission and worker according to the skill and knowledge.
- 2) Delegation of the authority and administration power to a local government organization.
  - 3) Transformation of public activities into private activities.
- 4) Reducing the scale of government agency by dissolving or shut down ministries, bureaus, and dissolution of individual permeant employees.
- 5) Promotion and reward to the outstanding performance of the department and individual government agencies.
- 6) Establishing the goals of public organization for making public administration more flexible and independent by enacting the public organization in 2542.
- 7) Putting Prime minister office regulation on affairs of moral administration of the country.
- 8) Putting Prime minister office regulation on standard of management and achievement of public organization in 2543.

Later in 2002, There was a reform of the bureaucracy by focusing on the government organization framework holding on Agenda based principle to create strategic management. Establish an evaluation system by using performance testimonials. Adjusting the local state government administration into an integrated provincial administration system. The issue of a Royal decree on the rules and regulation of moral governance within 2546. It became the guideline in the procedure of government services. So that government services will be beneficial to all people. The use of advanced technology in government administration lead to the E-government services. The use of the GFMIS system helps to develop the public finance system. The improvement of quality of services by reducing the process or creating organization services to serve all citizens. it called "Bureaucratic development." The scope of the reform of bureaucratic under the strategic plan for the development of Thai Bureaucracy (2556-2561) are as follow

1) Government role adjustment. The adjustment has been made by review the duty or role. It needs to be the focus on the necessary tasks. Divide the responsibility and authority to the private sector and create cooperation among the various public sectors to solve different problems to satisfy people's needs.

People need to be concentrated by the bureaucracy. People will influence the government agency setting the objective according to the benefit of citizens. People will have the opportunity to listen and comment system so that there will be an improvement, adjustment, and solving the problem according to citizens' feedback. It also includes the management under the emergency to sort out crises or reduce the burden, which will create difficulty for people's business operations and lifestyle. Strengthen the competitiveness to create the civilization within ASEAN for cooperation in role and duty for country group. Allocate the resource and make the best use of those materials in the same direction.

2) Renovate and new management should be focus on the reform of the internal administration system. The internal administration system's reform will create the efficiency and effectiveness of offering high-quality services for clients and people.

The bureaucracy system helped the government's role by reducing the complexity, renovating, improving the procedure and management system, increasing the efficiency, public sector integration, and various level of operation to connected for supporting the implementation of national policy. They were getting ready to drive the Thai bureaucracy into the ASEAN Community and the World Forum. Integrated human power or expert in various sectors to drive the policy by working with another sector.

- 3) Reform of budget management to make this became a tool that can use policy and strategy for developing the country, resulting in genuinely beneficial people. It is the resulted oriented budget. (Result-based Budgeting) In adjusting the budget, The ministries and department will have more action for the decision making role.
- 4) The reform of personnel management system by organized a new management system under fairness and justice. The compensation must be equal to the market price by having high-performance management and best quality human resource management.

Recruiting highly capable people to the department and create the leadership at various levels. Create social responsibility and moral for improving the quality of life. Manage appropriate compensation system to all worker

5) Cultural and moral modification for government officials and officers to understand and adjust themselves to suit a new working system. The working system focused on public responsibility, morals, and transparency to eliminate corruption and misconduct. Moral and transparency will create trust by the other people, and government agencies may have more dignity.

Creating the value and cooperate culture, using the information technology to support work efficiency, and adapting the change. This factor will generate transparency and confidence by a refuge. Cooperate with other sector will carry out the corruption and misconduct

(Public administration of the Kingdom of Thailand Civil Service Training Institute, Office of the Civil Service Commission History of bureaucracy, pages 49 - 60)

However, the Thai bureaucracy is still facing various problems. They will affect not to satisfy need of citizens inappropriate time, transparently and fairly (Miss Pituwan Kitikhun Instructor Academic Service Division 1 Academic Center). The problem can identify by the following.

- 1) The framework and structural problem. The bureaucracy has a broad framework and structure that creates complexity in role and duty, authority, and decision-making power. This is having the direct effect of ineffectiveness and inefficiency to serve the complication of government administration in the present and the future at the maximum performance. There are duplication of authority and the responsibility among depart. Besides, The central government administration uses the principle of centralization, which resulted from creating various bureaucratic departments, ministry department, and command department. When it turns out to be this system, it creates the delayed and unappropriated to serve need and want of the people
- 2) **Administrative problem**. The bureaucracy's administration must be more transparent, fair, justice, and can not be verified by outside—the intervention from a political party who formulate the policy. Besides, sometimes the bureaucracy system neglected its operation performance, and monitor and evaluation, a measure of success or achievement of performance, which resulted in various bureaucracy do not have the data of processing each project for improve or develop better work.

- 3) **Personnel management and human resource management problem**. Human resource management is inequality causing officials to have different advances in their position. The compensation system does not adjust to suit an environment labor market. Besides, there is a lack of appropriate means of driving government officials to have appropriate attitudes and behaviors, which corresponds to the personnel's problem. Officials still lack knowledge, expertise, and professionalism, which will cause them not to adapt to change. Lack of accountability, has traditional attitudes and values. As a result, the bureaucracy and civil servants are still attached to the work by using the power of command. Self-centered And use a patronage system to work without allowing the public to participate in suggesting opinions.
- 4) **Corruption and misconduct :** It is a significant problem of Thai bureaucracy because the system is retained. Officials are having the behavior of helping their people, which is the primary channel for the corruption. It became a significant problem for the bureaucracy.
- 5) **Technology innovation**: Technology has been developed over since decade. With the quantity of extensive data, more intelligence and robotic technology can be used to analyze in-depth. All data can be carried anywhere with the help of technology such as mobile phones or computers. Technology is involved in all dimensional in the working of all government departments. Government agencies can use technology to serve people, management, setting various policy, and including solving the problem or crisis. This will vary the working system of the government sector and become more digital.

Government has a policy focused on improving the bureaucracy system to live up to the quality and performance in administration and worker. It has been done due to the effectiveness and efficacy of evaluating the performance according to good governance. It brought in a modern management system and concept under application from the principles of business administration. For example, strategic management, step of procedure reduction. Satisfaction feedback or test, Official certification, opportunity for the department to purpose the change, risk management, improvement on information systems, etc.. This increased capacity of the government sector. Cabinet approved the quality criteria for the public administration system as a tool to develop a bureaucratic system. It has begun to apply this system in 2549. Development of Public sector management quality award(PMQA) is a tool for developing an organization according to the strategy of elevating the quality of Thai bureaucracy to have the potential and the capability of international equivalent. In which to streamline the organization management system, the Organization must have two types of knowledge. One is the specialist, while the other is the generalist. In the administration of the entire system, strategic management must be used as a tool for management. Strategic management is the internal organization to survive from various external factors in which keep on changing. Organization must be analyzed, monitor, and estimate the trend and all other external factors. This information can become the essential data in which the firm can adjust internal force accordingly to external force. The organizing system should create a team in which a team member must learn and develop together and understand. The tool used is the value chain for creating quality goods and services and suitable for services recipient. Organizations having two areas are to focus. There are primary activity and support activities in which these two areas must coordinate together by using total quality management.

The problem mention above, it reflects the need to reform the bureaucratic system. Innovation public sector development quality and administration are useful for delivering better value of goods and services. A tremendous bureaucratic system's advantage and goodwill are that they must receive positive feedback and interest of services recipients to become a high-performance and quality government organization and sustainable. There also must include international standard. The research findings indicated that:

1. the development of the public sector variables. 7 factor are 1) Organization leadership (vision, values, direction) 2) Strategic and planning (Risk management strategy, communication, objective and achievement) 3) Priority on service recipients and stakeholders (Feedback from participant, satisfaction survey) 4) Analysis and knowledge (information management) 5) Human resource management (Focusing on human resource, HRM and HRD, moral and responsibility) 6) Process (Reduction of step of working process) 7) Result of operational 2. dynamic capability variables, there are five main variables 1) role of leadership 2) Law and regulation and policy 3) Human resource 4) Corporate culture 5) environment

# a. objective

- 1) Focus on the level of innovation public sector development quality and dynamic, which can influence of being the high-performance public organization.
- 2) To study the standard level in public sector development quality, which affects the development of bureaucracy, and. Lifting the quality of performance related to Royal Decree on moral corporate government rules and procedures and good governance.
- 3) Researching the relationship and factors affecting the success of public sector development quality can used in the organization.

Performance action is a variable that can measure the development of the quality and efficiency of management and government department performance. The result of action performance is empirical data that 1) Government sector have developed quality of government administration at high quality 2) Government administration affect the lively performance and quality of system 3) Relation testing has been done by using statistic equation which shows that development of the quality of government management at the policy level is adequate to the better value and performance in administration.

# **Terminology**

**Public Sector Management Quality Award(PMQA)**: USA initiated the standard management and quality development. It became a significant national agenda throughout the period since the reform of bureaucracy. This affects to increase the competitive ability for the country.

**Good governance**: It refers to the administration to achieve the following objective 1) Generate most benefit to citizens 2) Achieve the state mission 3) efficiency and worthy in government project 4) There are no unnecessary processes or steps. 5)Ready to adopt a change due to the situation 6) bring a comfortable way for all the people and satisfy their actual need 7) There is a regular evaluation of the government's performance.

**Dynamic Capabilities**: It refers to the ability of an organization in the gathering, decision making, innovation, and integrate various types of resource which organization are holding to be adaptable to the change.

# 1.2 Hypothesis

Hypothesis 1: Innovation public sector development quality and administration and dynamic Capabilities to high-performance organization

Hypothesis 2: he level of quality criteria for public administration, which will influence system development. Upgrade the quality of public sector performance in line with the Royal Decree in which mentions that the procedures for good governance management

### LITERATURE REVIEW

In this research, the researcher began from the secondary journal article and academic textbook or document, secondary study used for concept, theories, and knowledge as follows Innovation is a unique tool for entrepreneurs. It is the adjustment to become an opportunity (Peter Drucker, 1985). It refers to creation or invention by spending resources, labor, and time on new products and services. It is something that shapes into the interest of a new way to produce a product and services. Changing something on a small scale while the other thing is changing exterminate. According to Quinn 1992, innovation is the process of activities that lead to production. For those organization which focuses on empowering of management, it is a management innovation. When it comes to planning, thinking, making the maximum use of the resource, and achieving the final goal, it requires specialized knowledge and experience to deal with. Therefore, whatever is a knowledge, techniques, new concept, or new kind of change or product, it is considered innovation. When innovation being applied for management, it also considers as innovation management. Such as human resource management or operational innovation, it has developed to empower the capabilities of corporate operations. (Jeerapun Junvichien, 2016, Documents teaching Subject Innovation Management) Innovation on balance scorecard used as a tool in converting strategy into an action. It is an evaluation tool which can measure the performance, showing organization potential and future organization trend. To understand the position of an organization in several shapes and correctly, this information is required. There are four areas which is a management innovation in measuring organizational potential.1) The Financial Perspective 2) The Customer Perspective 3) The Business Process/Internal Operation Perspective 4) The Learning and Growth Perspective. (Robert S. Kaplan and David P. Norton, 1996) Taking an example of Rockwater, Apple computer, Advanced Micro Devices(AMD) These three companies used BSC to measure the performance and setting strategy. An example in Thailand, Thailand adopted the BSC concept to use in the Seven-Eleven store. It is used in the working system to be more implementation. Thai bureaucracy bring in innovation in management as well. An example of an organization that applied innovation in management is Office of the Civil Service. It has been done by established Public service management standards and outcome (PSO), the international standard of Thailand in government agencies' management and achievement, and PMQA. It is a tool for organizational development according to a strategy for enhancing the quality of Thai bureaucracy for having the same standard and capability equivalent to international. The research found that the development of administration will lead to innovation services. Department of policy must emphasize maintaining a standard of work system. It also needs to focus on policy setting. Ministry level work plan still lacking the full-service model. In the provinces sector, which have reasonable administrative, they focused on maintaining their popularity base on meeting and visiting people. It set local activity for listening to feedback from people in that area (Sorravit Preamchuen Research and academic articles Public Management Quality of Thai Civil Service, Year 9 th No. 1 January - June 2016). Service innovation is to enhance efficiency as well as the effectiveness of the level of services. Creating more value can be considered service innovation that refers to creativity in developing a product or services to satisfy various consumer needs. Integrating the organizational management potential and interacting with customers creates services value (Usui,1999). Innovation services that can be used in the real world may need to create step-by-step innovation systematically. Service science is a science that guides the starter point, which leads to generate of diverse knowledge. It is beneficial to create service innovation. Service innovation will generate based on technology, ICT, which creates a wide range of various value service offer in the modern world. Over more, services innovation relies on the four framework( Information, process, technology,

and environment) (Miss Chanida Khumrahong). Dynamic capability is similar to the ability of an organization in setting the objective, expand or modify resource and human resource to service under varying environment. (Teece et al., 1990; Teece et al., 1997; Eisenhardt & Martin, 2000; Eriksson,2014) Uriarte et al., (2018) found that Dynamic capability helps the organization strengthen and transform the process into the change of business environment Teece et al., (1997). It found that dynamic capability promotes organization capacity to improve performance, especially in the market dynamics. This is because it is the determinant of the relation between the organization and change in the market condition. There is development and restoration of the organization to achieve objective and gain advantage of the sustainable competition.

### RESEARCH METHODOLOGY

In this research, it focused on the criteria for Innovation public sector development quality, service innovation, human capital, organization framework, law and regulation, and Government policy. The population used for research are executives, supervisors, and departmental staff who apply quality criteria for government management in the organization and service recipients. The researcher determined the sample group by using a total of 420 questionnaires. When the quantitative research was obtained, the quality analysis has applied from crucial information.

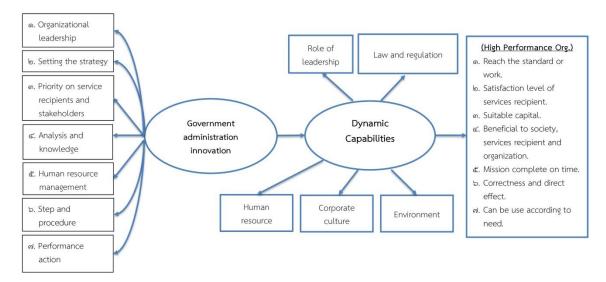
# 3.1 This research combine of the following variable

# The development of public management quality variable: It consist of

- 1. Organizational leadership (vision, values, direction)
- 2. Setting the strategy ( it is including risk management, communication, organization goals, and the indicators to organization/individual)(implementation of strategy)
- 3. Priority on service recipients and stakeholders (Feedback from participant, satisfaction survey)
- 4. Analysis and knowledge (information management)
- 5. Human resource management (Focusing on human resource, HRM and HRD, moral and responsibility)
- 6. Process (Reduction of step of working process)
- 7. Result of operational

# **Dynamic capability variable** it consists of 5 variable

- 1. role of leadership
- 2. Law and regulation and policy
- 3. Human resource
- 4. Corporate culture
- 5. environment



1 Research conceptual framework

### 3.2 Method of research

This research used combination methodology. It consists of quantitative and qualitative study, Survey research by creating a questionnaire tool to measure the variable that influences independent variables. The population are executives, supervisors, staff of the departmental who apply quality criteria for government management in the organization, and service recipients. The samples used in this research obtained from the previous study. It was the suggestion idea from sample size to find a suitable number of simple size according to the variable. So that a sufficient sample size could obtain. The acceptable variable should be a ratio of 20:1 (Hair, Black, Babin, & Anderson, 2009; J. F. Hair, Black, Babin, Anderson uns Tatham, 2009). This researcher calculated sample size according to the structural SEM under the rule 300 of David Garson (2008). The sample size should obtain at least 300 people. This research has 12 variables. It collected data from the target population, officials, and government employees from 10 departments, which can be combined to 420 people to obtain an adequate date. Randomly sample should not be non-probability sampling. It should select regarding each sample have different change of picking the test. In this case, 420 people are accidental sampling. The data collected by questionnaire. Questionnaire contain of 5 level of Likert 'scale. The researcher collected data from the sample size in which data has analyzed by using various statistics. The following are the statistic method used for analyzing the data

- 1) Descriptive statistics refer to the distribution of frequency, percentage, mean and standard deviation.
- 2) Inferential statistic: It refers to analysis to test of hypotheses the variable by using one-way ANOVA analysis
- 3) There are statistic for testing the harmony of model and empirical data such as CMIN/DF, GFI, AGFI, NIF, IFI

### RESULT

The result of Innovation public sector development quality and administration and dynamic Capabilities to high-performance organization found that

- 1) The department of bureaucracy that serves the services to people focuses on developing services quality according to the principle of development of quality management. It is to promote the efficiency and effectiveness of services. Most departments are concentrate on satisfying service recipients or listen to feedback and opinion from stakeholders and customers. There will be the ability to involve the innovation services.
- 2) Government officials' opinions in the development system of government quality administration found that most of the sample size has a reasonable opinion on government quality administration's development system. When it is considered in each scope, The study shows that the size of services recipients and stakeholders (Feedback, satisfy survey), Process management (reduction of process step) are most favorable. The size of human resource management should be improved. It also found that bureaucracy still having the issue of multiple command and complicate redundant chain of command.
- 3) Compare the opinion from government officials in the development system of government quality administration. The study found that Education, position, affiliated agency, and work experience are related to government quality administration's development system. The position of work variable having no relationship with development systems. Therefore, Education levels determine the opinion on the development system of government quality administration. The resulted oriented variables founded. Performance measurement, Imitation of the private sector, Public sector action review, delegation of power and authority, competition, transparency, and accountability are dealing with bureaucracy development.
- 4) According to research, the development system of government quality administration follows the Royal Decree on the criteria and methods of good governance at 2546. The administration must do good governance for the benefit of the people. All the process set of government sector must be transparent. There should be a tool for recheck every step for it. If there will be an impact on people, the Government should listen to people's opinion or explain to make the understanding for whom received the benefit for those projects. Public administration for the achievement of the government mission, it should be efficient and valuable.

### **SUGGESTION**

By applying the techniques of government quality administration techniques, measurement of overall performance is essential to stimulate the bureaucracy department to awareness. It effects to government officials to be more enthusiastic about their work. However, using a management tool for various projects and adapting those tools for different government departments, it still not being used for all departments. Some of the departments still not understanding this tool correctly. It is causing inefficiency in performance according to duty. It is not using because this system is causing no effect at all. The Government should become more severe in using this tool because many organizations are operating mainly on internal management. Management techniques are useful in bringing efficiency and effectiveness. The public sector must discipline to use this tool, including the authority of government officials. The criteria must be defined

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# PROMOTING COMPREHENSIVE REFORM OF VOCATIONAL SCHOOL EDUCATION WITH INNOVATIVE MANAGEMENT

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# **ABSTRACT**

With the advent of the era of big data, in order to meet the training needs of social talents, the field of education is also undergoing continuous reform and innovation. After continuous exploration and discovery, schools need new management measures and ideas to promote all-round development, especially vocational schools are bearing the responsibility of training skilled talents. How to cultivate talents to meet the needs of social development, employees to meet the needs of enterprises, and students to meet the aspirations of success, are all the goals of vocational schools. In the past few years, vocational schools have been exploring ways of educational reform through school enterprise cooperation, integration of industry and education, and collaborative education. With the coming of industry 4.0 era, vocational education has entered a new round of development and will face new opportunities and challenges. Therefore, in the form of deepening the comprehensive reform of vocational education, vigorously promoting innovative management methods will certainly promote the comprehensive reform of education in the true sense of vocational schools.

**Keywords**: Vocational school, Innovative management, Reform

With the coming of industry 4.0 era, the world economy has rapid development, international competition becomes increasingly fierce, demands for talents in all aspects of the country are increasing, the education industry also has transformation, the fourth education revolution has already come. Vocational schools shoulder the mission of training skilled talents, adhere to the training principles which have equal personality development to comprehensive development, as well as employment to entrepreneurship, so vocational education is going through a golden period, but also a challenge period. Even though the skilled talents are in short supply, and can't meet the demand of enterprises, but the parents and students don't understand and agree with the vocational education, which leads to the problems of students' comprehensive quality deviation, teaching effect is not significant, enrollment difficulties and so on. So in this new era of diversification, how can vocational schools continue to promote the comprehensive reform of education in order to seek development? Based on this question, this paper discusses and analyzes several ways to promote the comprehensive reform of vocational school education with innovative management methods.

# 1. Promoting education and teaching work with internet plus

With the advent of the intelligent era, Internet plus mode has already been deeply involved in the field of education. In the background of Internet plus, the fourth educational revolution has driven vocational schools to change the traditional education and teaching mode. Through the integration of technology and education, we can broaden the channels for students to acquire knowledge, can change teaching methods, integrate curriculum structure, optimize curriculum system, innovate learning methods, and immerse students in learning

situations through information technology such as VR, AR, MR and so on . It makes students realize the interest of learning, improves the attraction and effectiveness of teaching, highlights the key points of teaching, breaks through the difficulties of teaching, achieves the expected goal of teaching, makes vocational education students easier to master knowledge, and makes learning everywhere.

Recent years, China's vocational schools combines Internet plus technology in modern teaching mode. It has made China's vocational education more abundant and diversified. It has not only saved teaching capital, but also made vocational schools more personalized, adaptive and selective. Therefore, if vocational schools want to continuously improve the quality of education and teaching, meet the needs of students, and adapt to social development, it is necessary to strengthen the construction of educational information technology environment, improve the level of educational informatization of staff, change students' learning behavior, and make vocational school education socialized and work together.

For example, modern teaching methods have naturally changed the teaching mode of traditional vocational schools. Now, the mixed mode of various school environments and teaching media has entered the classroom of vocational schools, and spawned many new online teaching forms, providing students with self-evaluation, progress evaluation, achievement evaluation and other functions, helping vocational students to carry out in-depth learning Good development of high-level thinking ability of students. Internet plus provides an integrated intelligent learning environment for vocational schools. Through intelligent learning terminals, such as digital campus, future classroom, smart laboratory, etc., it can identify the personalized characteristics of students, perceive learning situations, record students' learning process and learning results, provide students with diversified learning resources, and achieve seamless integration of reality and virtual space learning.

In this era of Internet plus, vocational schools need to plan for the construction and application of information technology in education and teaching management, and open up online learning space for all teachers and students, and build a student learning and development center and a teacher learning and development center. For example, vocational schools can accelerate the construction of "one network, one platform, two libraries and six systems", and improve the overall planning and construction of "Digital Campus", fully build a special education network and an education "cloud computing" data center. Master the characteristics of students through big data, then we can provide students learning paths, analyze students' learning process and results, predict exam results, further optimize the construction of information-based infrastructure, make full use of the service system of educational resources sharing, and realize online and offline integrated education services supply, provide high-quality education resources to students, encourage teachers and students to use network resources for distance collaborative learning. Especially in the current global coronavirus situation, online distance education has brought a certain impact on vocational education. Due to the continuous improvement of the courseware presentation form, teaching mode and mobile technology of online courses in practice, the online teaching of vocational education has also been optimized, driving the reform of teaching mode, which can not only complete the expected teaching tasks, but also provide personalized teaching products for students, strengthen the main position of students, and meet the needs of students' personalized learning. The online teaching and other methods can well complete the interaction between teachers and students. Of course, at the same time, teachers in our vocational schools are required to constantly improve the level of information-based teaching, improve digital literacy and big data thinking, cultivate innovation ability, attach importance to the design of teaching activities, change their roles, from the transfer of knowledge to the construction of knowledge, build a learning community with students, have

a stable and mature knowledge structure, and master the subject teaching methods of integrated technology Law. Schools and superior departments should also develop corresponding incentive mechanisms to stimulate teachers and staff to innovate and apply modern means of education, change the traditional education evaluation mode, make accurate judgments with big data, pay attention to students' individual differences and overall development, and provide teachers and students with more scientific, open, comprehensive and diversified development paths and directions.

Vocational schools can also build a virtual economic teaching transaction system and a digital learning port through intelligence, help improve the "Internet +" community education model, implement the strategic transformation of the construction of an open vocational school, and provide education services together with enterprises and communities. Then a new collaboration framework based on Internet plus for the provision of diversified educational services is presented. It can promote the new development of vocational education and teaching, help students increase practical experience, and enhance the level of knowledge application. This makes the data flow between vocational schools, society and enterprises. From network interconnection to application interconnection, it enriches educational resources, improves educational level, breaks the original boundary of vocational schools, and forms a diversified learning community. Meanwhile, Internet plus also requires vocational school students to change their learning styles and thinking modes, form a new form of ubiquitous learning and mobile learning, improve their learning cognition level, data literacy, and their ability to learn reflection and lifelong learning.

# 2. Promoting moral education work of students with innovative combination

Makarenko proposed that "one percent of the waste products in education work will cause serious losses to the country". The rise and fall of the national fortune lies in education, especially vocational education, which is related to social problems, people's livelihood problems and development problems. However, the quality of vocational education students is generally poor, individual students' psychology is abnormal due to school dropout or family changes, which lead to serious social bad habits and learning weariness. This is an objective existence. At the same time, parents of students have high expectations for their children's adult success, so we can't give up any student. I think that without a strong moral education team, effective moral education methods and the ability of moral education, our education and teaching work can not be successfully completed.

Through many years of educational practice, I think vocational schools can adopt the innovative mode of "eight class combination" moral education combination. It is to set up mental health education class, career planning class, moral education class, moral lecture, activity class, nurturance education class, practical training class and innovation and entrepreneurship class, and do a good job in the thematic class meeting teaching plan and student growth files.

Mental health education class. Due to the rapid development of the society, various factors affect the psychological status of vocational school students, many students have psychological problems, so mental health education and knowledge and skills education are two key contents of vocational education, none of them can be omitted. Through mental health education, we can solve the psychological obstacles of students, which is conducive to the development of students' mental health, and make students better accept school education ideas.

Career planning class. It will carry out career education and career ideal education according to the characteristics of students, and complete the top-level design of career planning education in the stage of vocational education from the aspects of adaptability guidance, course selection guidance, academic guidance and employment guidance. Only by

guiding students to firm their ideals and beliefs, establish the route and coordinates of life development, learn with goals and pursue, can they correctly establish career view, career choice view, entrepreneurship view and talent view.

Moral education class. Through the moral education class, we can solve the problems of moral education of students, cultivate students to establish socialist core values, carry out "adult talent" education for students, make moral education class close to students, close to specialty, close to society, and make students reach the training mode of "C(cognition), E (EQ), S (skills)". Based on activities, let moral education into life, based on practice, let students grow up.

Moral lecture. Through the moral lecture, the traditional Chinese culture will be inherited, the traditional Chinese thoughts will be carried forward, the traditional virtues of "benevolence, righteousness, courtesy, wisdom and faith" will be remembered by vocational education students, the virtues will be publicized in the class, the positive energy will be passed on, the stories of virtues will be remembered, and the core values of socialism will be established.

Activity class. The activity class of vocational school includes the community and the second class, which enriches the students' after-school life, enables them to learn more skills and knowledge which do not belong to their own profession, cultivates students' interests and comprehensive ability cultivation education through participating in various activities, enhances students' social ability, and guides them to develop actively and healthily in an all-round way.

Nurturance education class. As the quality of vocational school students is low and their behavior habits are not good, we can change their bad daily behavior habits and improve their comprehensive quality by developing the training program and correction program of their behavior habits formulated by the nurturance education class.

Practical training class. Vocational school is mainly to train technical talents. The practical training course is dominant. Through the practical training class, students can be trained to have skills, get employment smoothly, and live a dignified life.

Innovation and entrepreneurship class. Premier Li Keqiang put forward the slogan of "mass entrepreneurship and innovation" in the new situation. Entrepreneurship means employment, which makes the unemployed have jobs and the employed happy to work. Our vocational educators should instill new ideas for our students and encourage them to innovate and start their own businesses. This is also the advantage of vocational education. We should cultivate students' self innovation ability and let them choose to do their own businesses.

Through the new model of "eight class combination" of moral education, the students are taught according to their aptitude, which has achieved good results. Many vocational school students have realized the life transformation of "Walk in with head down, and walk out with head up", cultivated their international vision, contemporary consciousness, and enhanced their national feelings and cultural confidence.

Vocational schools can also maximize the excavation and integration of high-quality social resources, and cooperate in-depth with Party schools, party history research offices, labor unions, Youth League committees, women's federations, cares for the next generation working committees and other departments or units to build a distinctive combination of education platforms. Integrating leaders and teaching staff into the moral education training system can promote the education of all staff, jointly promote the construction of school culture, open up the social practice base of students, and build a trinity of moral education system of school, family and society.

# 3. Using blockchain technology to drive enrollment and employment work

The white paper on the development of China's blockchain technology and application points out that "the transparency of blockchain system and the non tamperability of data are fully applicable to student credit management, enrollment and employment, academic, qualification certification, industry university cooperation and other aspects, which are of great value to the healthy development of education and employment". With the promotion of blockchain technology, it should be also used in the field of vocational education. Because it not only helps to solve the problem of false academic qualifications of vocational school students, but also drives the enrollment and employment work of vocational schools. For example, "link100 professional ability chain" is a powerful verification and analysis for students' credit, employment, learning, qualification certification and other information by virtue of blockchain's unchangeable credible words and authentic technical features, to help personal career development. After verification, it can collect students' academic scores, and provide a reliable and detailed personal growth record for future enterprises. It can meet the needs of employers and other parties, and ensure the maximum interests of enterprises and individuals.

"Stakeholders in the education industry may focus on the potential of the blockchain, that is, the potential for digital authentication of personal and academic learning," it was also written in the report 《blockchain in the education industry》 issued by the European Commission. Vocational schools can record students' learning trajectory and big data of students' information through blockchain technology, and analyze students' learning level reports. According to the data of WSCT blockchain technology ledger, enterprises can truly master the learning and skill level of students. Big data of vocational school students' information solved the practical problems between schools and enterprises when vocational school students are employed. According to the data of students (including their moral education development level, professional development level, physical health level, physical and mental development level, interest and specialty level, etc.), the employer can judge whether the students meet the company's post requirements through the analysis report. Students can also find jobs matching their own skills according to the blockchain ledger, and learn the real level of the enterprise development, the future development direction and the prediction of the enterprise according to the blockchain technology. This solved the problem of lacking trust among the society. Moreover, through the school data provided by WSCT, parents and students can learn the education and teaching ability of teachers, the classification of schools and the construction and development of key specialties. It ensures the transparency, openness, objectivity and authenticity of schools, and helps students find a vocational school suitable for their own majors. In this way, the situation that students and parents can not judge the real teaching quality and teaching level of a school due to the influence of advertising will not appear. These unalterable data help students to provide the right choice of information, and conducive to an excellent vocational school enrollment work.

The use of blockchain technology can solve the four key points around the development of vocational education through "enrollment, courses, practical training, and employment", and open up "province and city, industry and education, school and enterprise, public and private education, education training, inter-school, Chinese and foreign "Implementation of vocational education channels. Schools can evaluate their own talent training quality and majors through big data, and jointly build training rooms, training bases or joint research with enterprises to actively implement the "blockchain technology demonstration application action" to promote blockchain technology transform into the development momentum of the enterprise, and into the actual productivity of the enterprise. It can vigorously promote better cooperation between schools and enterprises in personnel training, provide enterprises with a reliable detailed record of students, and build a trust

network with schools. And it can help vocational schools to achieve a true "learning on demand, teaching on demand", provide a dual education service supply, and promotes the vocational school employment work to be better completed.

# **4.** Utrengthening the management of the school by restructuring the organizational structure

The organizational structure of vocational schools is to ensure the communication and coordination of all departments, which is composed of organizational roles, organizational expectations and organizational relations, and serves for the protection of school teaching. In order to meet the needs of the society, vocational schools should also adhere to the organizational system reform and system innovation, strengthen the school management strategy, dare to innovate, reasonably adjust the innovative management mechanism of internal institutions and resource allocation, and form a scientific and orderly management system. At present, the organizational structure of vocational schools is generally divided into different functional departments, with too many levels, only to complete their own workload, It has strong administrative characteristics, leads to the current organizational structure of vocational schools taking "success" as the goal and ignoring the fundamental pursuit of "education". Therefore, through the reorganization of school organizational structure, the pyramid organizational structure can be transformed into a flat organizational structure. So all departments can realize the seamless docking and optimization of management data integration, which can improve the enthusiasm of teachers, improve the quality of school development, make the school organizational structure closely linked, and facilitate the comprehensive reform of school education.

The reorganization of the organizational structure of vocational schools can follow the following principles. First, the reorganization of the organizational structure is to serve the overall educational and teaching needs of the school. The main task of vocational schools is to carry out education and teaching for students, so schools can change the functions of the original departments from "management" to "service and guidance", adjust their own structure, increase the coordination ability of education and teaching of all departments, compress administrative functions, expand teaching functions, and guide school education and teaching activities in various ways. So it can ensure that school education is responsible for the service objects. Second, they should vigorously mobilize the enthusiasm of all staff, parents and students to participate in school management. In addition to teachers, students, as the audience, should also participate in the management of the school together with their parents, so that the school and parents can better promote the reform of the school system. Students, as the service group of the school, should also participate in the management of the school. Schools can set up parent committee, parent inspection office and student rights committee to give parents and students the rights to participate in the management of school education and teaching. Integrating multiple management opinions is conducive to optimize the school management mode and realize personalized education. Third, organizational restructuring should adopt a gradual approach. The organizational structure of the school has been built since the establishment of the school, and has formed a certain working mode. Therefore, the restructuring of the school structure is not completed soon, which will lead to the confusion of school management. Therefore, the restructuring of the organizational structure should be coordinated and gradually reformed by the whole school. Fourth, it is necessary to realize the organic unity of administrative business management and teaching development in vocational schools. Most of the organizational structures of vocational schools are set up according to the requirements of higher authorities, and the work is completed according to the instructions of higher authorities, lacking initiative and creativity. All the work of the school should be finally implemented to the goal of making the students

become talents. Therefore, the administrative department should work together with the teaching department according to the requirements of the overall goal of the school, and learn to work individually, which can better lay a good foundation for the school teaching work, and do a good job in service and protection.

According to practical experience, the organizational restructuring of vocational schools can be roughly divided into three steps. The first is to establish a leading group. The leading group can hire consulting experts to jointly carry out "first diagnosis", prepare the basic data of the school, grasp the problems existing in various departments of the school, and make a diagnosis report. Second, the leading group and professional team interpret the diagnosis report, compare and analyze the horizontal data, make solutions, cooperate with each other, restructure, deal with various relationships in the process of restructuring the school's organizational structure, and finally realize the innovation and transformation of the school's overall management thinking. The third is to analyze the effectiveness of the restructured organization. For example, whether the enthusiasm of teachers has been improved, whether the work efficiency of all administrative departments has been improved, whether the work of all departments in the school is aiming at serving teaching and students, whether the organizational structure of the school is networked, flat development, etc? We must ensure that the restructured organization can adapt to the development of education, meet the needs of society and create the characteristics of running a school. The new management system should adapt to the trend of school organization reform.

Through organizational restructuring, the school organizational structure tends to be flat and networked. Vocational schools can achieve "implementation, supervision, monitoring, diagnosis and evaluation" in management, so as to realize "institutionalization of teaching management, standardization of student management, internal control of financial management, socialization of logistics management, modernization of safety management, project-based scientific research management and institutionalization of team management", making the construction of vocational schools more open and diversified. The re integration of teaching system and management system is also the inevitable trend of school reform.

# **CONCLUSION**

"The real meaningful education reform must be based on everyone - every student, every teacher, every principal, even every parent, as well as every educational leader and manager's ideological concept change."Through the discussion and analysis of the above content, we can know that, with the continuous development and progress of today's society, the mode of economic development and the demand for social talents are also changing. Under the background of this big era, if a vocational school wants not to be eliminated, it must carry out reform and innovation in order to conform to the current social development trend and improve the development level of vocational education. Only by taking the social needs as the direction of development, the education and teaching reform as the guarantee of development, innovating the management of education and teaching, and promoting the development of various forms of education, can the development of the school last for a long time. This article based on the impact of innovation management on the comprehensive reform and development of schools, this paper puts forward several effective innovation strategies. Hope to provide reliable reference and help for the development of vocational schools. Finally, hope that every school can be brave to innovate, make the advantage education better, and make the strong education stronger.

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# THE NEED FOR FURTHER STUDY IN BACHELOR OF BUSINESS ADMINISTRATION INTERNATIONAL TRADE PROGRAM OF THE STUDENTS IN EASTERN THAILAND

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### **ABSTRACT**

This research aims to investigate the factors influencing eastern Thailand students' needs for further study in bachelor of business administration (B.B.A.), majoring in international trade management. The sample was selected by stratified random sampling method, which consisted of 375 12th-grade students from 7 provinces in eastern Thailand, including Chonburi, Rayong, Chanthaburi, Trad, Chachoengsao, Prachinburi, and Sa Kaeo. The questionnaires were used to collect the data. The gathered data were analyzed by using frequency, percentage, and multiple regressions.

The finding showed that 55.5 percent of students were interested in the B.B.A. program, majoring in international trade management. The regression result, besides, found that the institutional factors (e.g. the reputation of the school) most importantly affected the decision to study ( $\beta$ = 0.585; p=.000), followed by instruction factors (e.g. teaching style) ( $\beta$ = 0.378; p=.000), and personal factors (e.g. family requirement) ( $\beta$ = 0.294; p=.000), respectively. In addition, the respondents need the offered program in the weekend, international conference scholarship, and high-tech logistics laboratory.

Keywords: International Trade Management, Further Study, 12th-grade Student

### INTRODUCTION

Due to the international trade management is interesting together with the economic development project in order to meet the needs of today's students. The researcher wishes to know about the requirements for undergraduate study, international trade management program, of students in eastern Thailand and to know the need for further study in the course. In order to be able to use the research results by education institutes, the planning of the teaching and learning process should be carried out in the future (Aunyawong, 2019).

The objectives of this study are 1) to study the requirements for undergraduate study, majoring in International Trade Management in Eastern Thailand, 2) to study the different attributes that affect the decision to study for B.B.A., majoring in international trade management in Eastern Thailand, and 3) to study the factors influencing decision-making on B.B.A., majoring in international trade management in Eastern Thailand.

### LITERATURE REVIEW

### 2.1. Overview of International Trade Management Study

As reviewed by Aunyawong (2019). Most international trade management majors are in the faculty of business administration, management, commerce and accountancy, management science, and many faculties. It is a dream major of high school students who study in the arts or math-science. This major will focus on the graduates becoming the new international trade management, going forward with creative business. For the concept of international trade management systematically, students in this field will often have the opportunity to travel abroad. It is suitable for people who like to travel. The supporters will be academic researchers in international trade management, import-export businessperson or consultants in international trade management.

Graduates in International Trade Management can work very wide because of the broad curriculum of this field. Mostly focus on companies that are exporting or importing. It can work in many positions, such as marketing, coordination, foreign affairs or transportation of international transportation. Or some people can go to work abroad. In line import - export Import-Export is mainly from the sales department, purchasing department, coordination department, and customs clearance procedures. For the work in this field, it is quite detailed and a formality of each product is very different. However, import - export. In each department may be redundant from other disciplines such as graduate graduates in marketing, can work in the sales department as well (Aunyawong, 2019).

In the job application, most companies require applicants who have a bachelor's degree, without specific subject areas. In the international trade management course, the graduates are able to choose from a wide range of career paths in business administration, including banking, finance, stock market, marketing, or sales representatives. Most of those who want to progress in the job. You will need to continue studying at the master's level. This will be the specialty of international trade management. Most bachelor's degrees will be based on business concepts and maturity will be ready to develop in the field we will continue (Aunyawong, 2019).

### 2.2 Decision Making to Further Study

Barnard (1938) has stated that the decision making is an alternative consideration of many options to obtain the best alternative. Griffiths (1959) has specified that decision is an alternative to practice by thinking about different choices. Simon (1960) has detailed that decision-making is a finding opportunities of decisions for the possible way. Pfiffner and Presthus (1960) have indicated that decision-making is choosing the best way to achieve the objectives. Oppenheim (1979) has identified that making decision is a careful consideration before do anything.

Schiffman & Kanuk (1994: 659) have supposed that the decision-making process is a process to choose from two alternatives. Plunkett and Attner (1994) have summarized 7 steps of decision-making process as follows: define the problem, identify limiting factors, develop potential alternatives, analyze the alternatives, select the best alternatives, implement the decision, and establish a control and evaluation system. Kotler and Armstrong (2001), moreover, have represented that there are four factors influencing decisive behavior as follows: cultural factors, social factors, personal factors, and psychological factors.

### 2.3 Related research

For related works in making decision to study, Cubillo, Sanchez and Cervino (2006) have proposed steps to make the decision of the foreign students that there are 5 main factors: 1) Reason and privacy 2) Impact on the image of the country 3) the image of the city 4) the image of the institution and 5) the educational program. Chen and Simitat (2006) have depicted that for Australia, the attitude or perceptions of Taiwanese students towards higher education in the destination country was of greatest importance in shaping their intentions for overseas study. The influence of family and friends was more important than consideration of resources necessary in shaping intentions to study in the USA. These differences provide a basis for considering tailored marketing plans for these countries.

### RESEARCH METHODOLOGY

# 3.1 Population and Sample

For this study, the study population was a total of 5186 students from 218 schools in the Eastern Thailand were selected for the study. For the result from stratified random sampling based on number of the districts, there were 62 schools as the representative of each district. Finally, from stratified random sampling based on the number of provinces, there were 7 schools as the representatives of each province. The sample size was calculated using proportional allocation method.

The sample in this study was the students who were going to graduate in the 12th grade in Eastern Thailand. Thus, the sample size was calculated using the Taro Yamane (1967) method with 95% confidence. As a result, the sample was 375 respondents. They were selected randomly using convenience sampling.

### 3.2 Research Design

There are many ways to deal with research that can be used to understand the relationship between knowledge and what is happening. In this case this research was selected as a survey research in order to understand the additional knowledge acquired from the attitudes of students who are going to study at the undergraduate level, exploratory research was applied because it is consistent with the nature of this topic. In the process of collecting data of this research, it will be based on theoretical ideas. There is a method of collecting survey data.

This research uses structured approach. The sequence starts with defining and describing related concepts. Then create a conceptual framework for research. The improved and developed conceptual framework for research will be applied. The empirical data collected will be comparative analyzed.

### 3.3 Research Instrument

The research instrument was created step by step. The questionnaire used to collect data is created in the following order. First, Study of knowledge about undergraduate study in Bachelor of Business Administration, majoring in International Trade Management in Thailand and related research to be used in the questionnaire. Second, scope of Questionnaires is relevant to the needs of the undergraduate level, Bachelor of Business Administration, majoring in international trade management. Third, the format of the questionnaire will be divided into 4 sections as follows: part 1 – general information of the respondents, part 2 - the survey of needs to Study in Bachelor of Business Administration (International Trade Management), part 3 – the survey of factors affecting the study in Bachelor of Business Administration, majoring in international trade management, and part 4

-recommendations or suggestions. Forth, to test the quality of research tools, the accuracy of the questionnaire was tested before using it to collect data from the sample. Index of Item Objective Congruence (IOC) was used to inspect the content validity of questions, including clearness, coverage, and language accuracy. Some questions, however, were unclear so that the experts gave recommendations in adjusting those questions to be consistent with the context of students who used to buy smartphones. Finally, the 30 trial questionnaires were used with the respondents excluded in the sample to improve before the questionnaire was distributed to the next sample.

### 3.2 Data Collection

Then, the questionnaires were gathered and checked the completeness and take the information obtained. The au authors have started by checking the validity of the questionnaire and then coded in every question. After that, the data was processed by a computer program and finally, the results were analyzed from print out.

# 3.3 Data Analysis

The data obtained from the questionnaire survey was analyzed using SPSS for Window. Descriptive analysis of the following empirical data was carried out employing by Pearson Chi-Square Test. The data in each part was detailed as follows

As part 1 is demographic data of the respondents, frequency and percentage were used to qualify the sample. Whereas as part 2 is information about the need to study the Bachelor of Business Administration, majoring in international trade management, of students in Eastern Thailand, Analysis was performed by using the frequency and percentage. While, as part 3 is information about the factors influencing to choose to study the bachelor of business administration, majoring in international trade management, of students in Eastern Thailand, the analysis was performed by using multiple regressions. Finally, as part 4 is information on comments and suggestions, content analysis was used to explain the results.

# **RESULTS AND FINDINGS**

The results of the research on the need for further study in bachelor of business administration majoring in international trade management program of the students in Eastern Thailand are as follows.

**Part 1** - The general information of the respondents was indicated that the respondents were 156 male students or 41.6 percent and 219 female students or 58.4 percent. There were 235 students in Chonburi, accounted for 62.7 percent, 41 students in Rayong, accounted for 10.9 percent, 15 students in Chanthaburi, accounted for 4 percent, 19 students in Trad, accounted for 5.1 percent, 23 students in Chachoengsao, accounted for 6.1 percent, 19 students in Prachinburi, accounted for 5.1 percent, and 23 students in Srakaow, accounted for 6.1 percent, as shown in Table 1.

Table 1
General Information of Respondents

General Information of Respondents		
Demographic	No. of Respondents	Percentage
Characteristics		
	Gender	
Male	156	41.6
Female	219	58.4
Total	375	100.00

	Area	
Chonburi	345	62.7
Rayong	41	10.9
Chanthaburi	15	4.0
Trad	19	5.1
Chachoengsao	23	6.1
Prachinburi	19	5.1
Srakaow	23	6.1

**Part 2** - For the survey of needs to study in Bachelor of Business Administration (International Trade Management), the results showed that 55.5 percent of students were interested in Bachelor of Business Administration program, majoring in international trade management.

**Part 3** -For the survey of factors affecting the decision to study international trade management program of the  $12^{th}$  grade students in the Eastern Thailand, it found that the institutional factors (e.g. the reputation of the school) most importantly affected the decision to study international trade management program ( $\beta$ = 0.585; p=.000), followed by instruction factors (e.g. teaching style) ( $\beta$ = 0.378; p=.000), and personal factors (e.g. family requirement) ( $\beta$ = 0.294; p=.000), respectively, as shown in Figure 1.

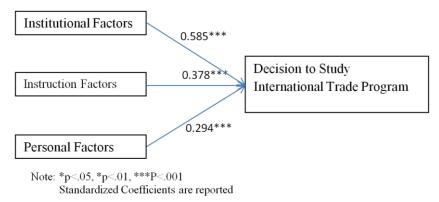


Fig.1 Regression Result

**Part 4** - From the conclusion of the comments and suggestions in the questionnaires, it was found that the sample needed to study for the Bachelor of Business Administration, majoring in international trade management. They required the special program held on Saturday or Sunday, or in the evening on Monday to Friday, including support for research grants or scholarships, such as the cost of registering for academic papers or research articles. They also required laboratory room for students with computer readiness and fast internet access.

### **CONCLUSION AND DISCUSSIONS**

The research found that Factors affecting the selection of graduate business administration curriculum. The International Trade Management of twelfth-Grade Students in the Eastern Thailand was ranked first in the field of education, especially the reputation of the school, followed by the teaching and learning, and personal reasons in order. Moreover, results from qualitative survey. The results of this research are consistent with the research

conducted by Sumitra Suwan and Juntima Chamnongnan (2011) on the need for graduate education of teachers and educational personnel in the western region. On demand, there will be openings on Saturdays and Sundays, Scholarships, and the availability of the lab. However, this research is not consistent with the research of Kanchana Sommit and Chinnipa Suttikul (2011) - The International Student Program in Chiang Mai. The results of that research have depicted that the most important factor in choosing the education is the teaching and learning, particularly the use of modern technology to teach. However, this research has some limitations. First, the data and information should be collected by using the interview to confirm the results of the research Waiyawuththanapoom, P. (2014). Second, this study was based on cross-sectional data. Further research should use mixed method to collect the data and study in the different areas.

For the recommendations, first, universities or educational institutions in the east should open undergraduate programs, majoring in international trade management. It is a subject learners or society needs. Another important aspect to be considered is the ability of the lecturers. They should be a specialist in international trade management and have work experience with multinational companies.

Educational management, secondly, should be arranged outside the office hours on Saturdays and Sundays so that regular students can study. Furthermore, the universities or educational institutions in the Eastern Thailand planning to provide the School of Business Administration, majoring in international trade management, should support research funding or scholarship, such as the cost of registering for academic papers or research papers. It should also include trade and supply chain labs for students who are well-equipped with computers and high-speed internet.

Finally, for a university or educational institution in Eastern Thailand planning to open a bachelor's degree program, majoring in international trade management should be published related information to those who are interested in continuing to know it regularly, using social media or digital marketing, as suggested by Aunyawong (2015), so that students who want to study in this course, they can prepare their own study plan.

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# THE USE OF FACEBOOK APP AS A CHANNEL OF INTERNAI COMMUNICATION: ITS EFFECTS ON EMPLOYEE ENGAGEMENT

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### **ABSTRACT**

Nowadays, the internet becomes part of our daily life. The internet-based applications play an integral role in our personal as well as work related matters. The research on the role of social media use in the workplace is of the interest of many scholars. Employee engagement topic has also been studied extensively. However, little is known about the association between these two concepts. This research aims to explore whether the employees intend to use Facebook for both personal and work purposes and to investigate the effect of social media use, particularly, Facebook, for work-related and personal-related matters on the employee engagement in term of their vigor, dedication, and absorption at work. The sample comprised 113 lecturers in both private and public universities in Bangkok. The results from the multiple regression analysis found that Facebook app used for personal related internal communication has negative effects towards vigor, dedication and absorption, which means that the higher the lecturers use Facebook app in sending personal communication the lesser it has an effect on their performance of their jobs in terms of vigor, dedication and absorption. On the contrary, Facebook used for work-related matters has shown positive relationships towards the components of employee engagement. These findings suggested that the use of Facebook app for personal use should be done not within the context of work in order to boost the engagement in the company.

**Keywords**: Internal Communication, Employee Engagement, Instant Messaging, Facebook

### **INTRODUCTION**

On the daily basis the contribution of internet-based applications has been flourishing. The use of social media and smartphones are always on-the-go. In this inventive era, we easily see people bowing their heads busy checking their social media maybe for personal or work related matters (Dorwal et al., 2015). Undeniably, social media has been espoused as the key channel in internal communication especially in the workplace (Papaioannou, 2011). The proliferation of the use of messenger applications such as Facebook has significantly changed the delivery of communication among colleagues, workmates and supervisors (Dorwal et al., 2015). This is also true in educational institutions such as the Assumption University as more and more lecturers, administrators, staff and students make use of Facebook in their communication processes. (Mishra, Boynton, and Mishra (2014)) explained that having an effective internal communication system is important in promoting employee engagement as transparency with the management is vital in building harmonious and favorable organizational culture to everyone.

Employee engagement is defined as employee's capability and eagerness to support the company's goal to succeed (Dutton & Kleiner, 2015). Engaged employees are characterized as enthusiastic and very optimistic to accomplish tasks. For this reason,

engagement can simply mean being buoyant, gratifying, and has work-related state of mind characterized by vigor, dedication and absorption (Schaufeli, Salanova, González-romá, & Bakker, 2002). Employee engagement is vital because it has positive relationship towards job satisfaction, slight turnover rate, low absenteeism, and high commitment towards the organization and performance (Schaufeli et al., 2002). Employee engagement is achieved through internal communication by the constant exchanges of information or updates that are work-related as well as the informal chats on the grapevine or personal issues. Effective internal communication is decisive for successful organizations as it affects the capability of leaders to engage employees and attain organizational goals (Welch & Jackson, 2007).

Nowadays, due to technological advancement, companies made use of social media as social utility that connects colleagues to facilitate faster and better internal communication (Skeels & Grudin, 2009). This is true with Facebook, in which most of the companies now consider this as one of the most convenient way in sending messages to their worker. With the upsurge usage of social media has change dramatically the way organizations communicate nowadays as the traditional communication process has shifted towards the digital form. The Facebook for one has become popular means of sending and receiving information to the employees of the organization. It has been used for work-related matters in as much as it is also used for personal communication (McDonald Jr & Handley, 2015). The problem now lies of whether employees prefer to use Facebook for work-related communication or rather they keep it for personal purposes only. Moreover it is also not clear whether the use of Facebook for work-related matters and personal-related matters affect employee engagement. Thus, this present study aims to answer the following questions: Do the employees of Assumption University prefer to use Facebook for work-related matters, or for personal-related matters? Does the use of Facebook for work-related matters or personalrelated matters affect employee engagement in terms of their vigor, dedication and absorption at work?

This present study is beneficial because if found to be effective, Facebook and other messenger apps could be endorsed as a means of communication within the organization as it encourages employee engagement. Moreover, this study will also be useful in determining whether this present generations of workers are adaptive with technology. If found that employees prefer to use Facebook app for work-related and personal-related communication, it means that instant messaging brings about change in the communication system. Finally, this study adds on to the body of knowledge that explores the use of social media, technology, applications and internet in the communication process of the organization. The literatures reviewed in this present study will be beneficial for future researchers who are interested in this particular topic in their future researches.

# LITERATURE REVIEW

### **2.1 Internal Communication**

Internal communication is the exchange of information within the workplace among its employees (Dolphin, 2005). Verčič, Verčič, and Sriramesh (2012) mentioned that information exchanged in an organization shapes better understanding among co-workers. This internal communication process aims at making the flow of communication more efficient in order to fasten productivity in the workplace. In this manner, employees will have more participation on important updates related to work. Most view this method as positive and can draw more cooperation and acceptance in the organization. Quirke (2008) argued that in order for workers to get sufficient information needed for them to perform the job thoroughly, there should be smooth and very organized connections among employees in the

organization. Internal communication can be done formally or informally within the organization depending on the employees preferences (Yates, 2006). Communications are defined as a system and technology in receiving and sending of messages in the organizations might it be in the form of face-to-face meeting, using emails, newsletters, bulletin boards, telecast, videoconferencing, phone calls, using internet and intranet protocols, survey materials, memos inside the organization and letters outside the organizations, presentations, and reports (Yates, 2006). At present internal communication in every workplace seems easy, fast and inexpensive as instant messaging becomes a very popular means to reach out to both employers and employees alike.

This innovation in internal communication is supported by the newest internal communication theory as proposed by (Welch and Jackson (2007) the authors mentioned that the stakeholder approach, in which internal communication is separated into four segments according to stakeholders' notorious group such as the internal team peer communication, internal line manager communication, internal project peer communication and internal corporate communication. In this latest method, (Welch & Jackson, 2007) focused on the last aspect which is the internal corporate communication.

Internal corporate communication is the communication process between the company managers and the stakeholders to boost engagement to the company in such a way that employees feel that they belong to the community, and that they are mindful to the companies' changing environment at the same time appreciative of its goals. The main objective of internal communication is to cater to its goals which are the commitment, belongingness, awareness and adaptation of the employees to the business environment. (Welch & Jackson, 2007) added that the proper management of internal communication should be implemented as it should world in contrast with informal internal communication. Informal international communication is similar to a "grapevine" in which people at work chat with each other of non-work issues. But formal internal communication involves work/company related communication materials.

# 2.2 Instant Messaging

This era of technological advancement, workplace completely relies on internal communication that is effective, hassle-free and modernized. Instant messaging (IM) has been very popular in almost all corners in this world as long as one is connected to the internet. Users use IM to connect to anyone such as co-workers, family members and friends. IM provides a tool that users can do multi-tasking, which is really needed in the workplace, mostly to those workers who do many things at the same time (Maina, 2013). Using IM in the office is faster compared to email as this application has notification system that calls the attention of the person quickly, thus messages can be read right away. In most cases, IM enhanced performance in different types of institutions in a way that it can help speed up processes in a more efficient and agile manner. Organizations should be able to maximize the use of IM to be more competent and technology savvy in relaying information towards employees. No matter wherever a person is situated in the city, different country or state as long as he is connected to internet, then instant messaging can cater this service.

# 2.3 Employee Engagement

Employee engagement is a multifaceted, extensive concept that incorporates a lot of different studies including human behavior, satisfaction at work, commitment and loyalty in the organization (Sundaray, 2011). Correspondingly, employees of the company who are zealous are able to take initiatives, give total support to the company, and are committed, active, satisfied, and willing to make a difference in the organization (Macey & Schneider, 2008). Typically, companies define engagement as having pride of the work that they do, and

being loyal to the organization. They go beyond the job description to show total dedication.

Several variables may help promote employee engagement such as career advancement, mentoring, rewards, recognition, safety, and values that are aligned with the organization's vision, well-being, decision making and autonomy (Baumruk, 2006). Internal communication aids as a pathway to publicize, connect and support these variables (Hayase, 2009). The projected relation between internal communication and employee engagement could be identified through its effects on the three components of employee engagement, which are dedication, vigor, and absorption. Dedication is characterized by the sense of worth, passion, encouragement, challenge and pride at work. This could be gleaned from workers who devote their time regardless of how much work is required. Vigor refers to high levels of energy and mental resilience while at work. It is the willingness of the employee to invest effort in his work, and his persistence in facing difficulties. On the other hand, absorption consists of the state of being fully concentrated on one's work, genuinely happy, and deeply enthralled in the performance of work. For the workers who possess this ability, time passes by so quickly as they find work as enjoyable (Salanova, 2005).

# 2.4 Hypothesis Development

In this present study however, it is projected that the use of messenger app for personal use may malign the attainment of vigor, dedication and absorption as forms of employee engagement as this interrupts the process of delivering proper corporation communication. Herbsleb, Atkins, Boyer, Handel, and Finholt (2002) mentioned in their study that there are a lot of people who are exposed to interactive text messages just to chat or exchange rumors and gossips, which are basically not important. Discussing personal whereabouts or sharing some mundane personal news have been common in IM messaging, in which if done in the workplace may disrupt the worker's performance of his job. Interactive text messaging in the workplace is somewhat time consuming, and in the worst case scenario it's communally undesirable. On the other hand, Hayase (2009) purported that there is a positive rapport between components of employee engagement and internal communication in the workplace. In his study, Hayase (2009) claimed that communication channel preference and the combination of any type of communication tools were linked with employee engagement in certain organizations. If this is so, the traditional communication method coupled with the use of IM such as Facebook app may be preferred by the workers, and may facilitate better communication process in their workplaces.

The contribution of using Facebook and employee engagement can also be supported by the study of Charoensukmongkol (2014), who found that both factors—job demands and employee support are associated positively with the intensity of social media use. The analysis revealed that there is a positive connection between job contentment and job performance and the use of social media at in the workplace. In general, evidence showed that the social media usage at work does not have direct negative effect toward work engagement. This implies that establishments should allow workers to use social media because it can eliminate stresses related to work issues and can also help do their task in an efficient and effective way. This is also true to Facebook as a source of internal communication in the workplace. Therefore, this present study hypothesizes that:

H1: The use of Facebook as personal related internal communication positively affects to vigor.

H2: The use of Facebook as personal related internal communication positively affects to dedication.

H3: The use of Facebook as personal related internal communication positively affects to absorption.

H4: The use of Facebook as work related internal communication

positively affects to vigor.

H5: The use of Facebook as work related internal communication positively affects to dedication.

H6: The use of Facebook as work related internal communication positively affects to absorption.

### RESEARCH METHODOLOGY

# 3.1 Samples and data collection

This paper made use of approximately 1,000 lecturers of Assumption University as its respondents. A convenience sampling method was employed as it is easy and convenient to gather the data from the respondents (Kemper, Stringfield, & Teddlie, 2003). The 25-item questionnaire was distributed online via e-mail, Line, and Facebook. A total of 113 lecturers responded to the survey. It reflected 11.3 % response rate.

### 3.2 Measurement

The main independent variables, the Facebook used for work related and personal matters were measured using the questionnaire created by the authors for this purpose. Six questions were determined in order to assess the use of Facebook for work related matters and two questions were included for personal related matters. Reponses ranged from 1 – almost never, 2 – rarely, 3 – sometimes, 4 – very often, and 5 – always. Respondents were also asked to indicate the amount of minutes per day that they normally spend on Facebook both for work and personal related matters. This indicates the intensity in which the respondents use Facebook for both work and personal related matters. They are represented by such dummy variables as 1 (0-20 minutes), 2 (21-40 minutes), 3 (41-60 minutes) and 4 (60 minutes and above). Furthermore, the demographic and professional profiles of the respondents were included in the conceptual framework as its control variables in case certain association could be identified from them. The control variables such as gender was measured as a dummy variable (females=0; male 1). Age was measured in years, marital status was measured as dummy variable (single=0; married=2, divorce=3). Educational level was measured using ordinal scale (1=Bachelor's degree; 2= Master's degree; 3= Doctoral degree). Job title was measured using ordinal scale (1=Part-time;2=Full-time;3= Deputy Chairperson/Assistant to chairperson; 4= Dean/Chairperson/Program Director). Work experience was measured as the number of years that the respondents had rendered service in the university. Department was measured as ordinal scale (1=Management; 2=Marketing; 3= Accounting; 4=Mathematics; 5=ACCSC).

The three main dependent variables—vigor, dedication and absorption—were measured by the scale made by Salanova (2005). The scale consists of 17 items which were answered through a five-point Likert scale rating, in which 1 indicates never to 5, which means always.

# 3.3 Data Analysis

The data analysis was performed using multiple regression analysis. Multiple regression analysis is implemented in the prediction of value of one variable based on the value of two or more other variables (Zikmund, Babin, Carr, & Griffin, 2013).

### **RESULTS AND FINDINGS**

There are few steps needed to be performed before executing the multiple regressions analysis. Firstly, the reliability of the concepts that are measured using multiple item scales must be evaluated using Cronbach alpha's coefficient. It shows that the reliability of all concepts is satisfactory with higher than 0.7 Cronbach alpha (Zikmund et al., 2013). The summated scales of each concept are created for further regression analysis. In the second step, the variance inflation factor (VIF) analysis was conducted to check for multicolinearity. The result indicates that VIF values ranges from 1.406 to 7.137, which are lower than maximum threshold limit of 10. This supports the reliability of all concepts are satisfactory. Finally, bivariate correlations among variables were analyzed using Pearson correlation coefficients. This correlation analysis was conducted in order to explore one-on-one relationships between the key concepts.

Regressions analysis was performed and the summarized results are shown in Figure 1. Hypothesis 1 predicts that the use of Facebook for personal related internal communication has a positive effect towards vigor. However, as the results show, Facebook for personal use has a negative effect towards vigor ( $\beta$ = -0.914; p=0.22). Thus, hypothesis 1 is not statistically Hypothesis 2 predicts the use of Facebook as personal related internal communication has a positive effect towards dedication. The results reveal that there is a negative relationship between these two variables and it is not statistically significant ( $\beta$ = -0.598; p= .014). Therefore, hypothesis 2 is not supported. Hypothesis 3 predicts the use of Facebook as personal related internal communication has a negative effect towards absorption. The results reveal that there is negative relationships between these two variables and it is not statistically significant ( $\beta$ = -0.631; p= .053). Therefore, hypothesis 3 is not supported. Hypothesis 4 predicts that the use of Facebook as work related internal communication has a positive effect towards vigor. The results reveal that these two variables are positively related and it is also statistically significant ( $\beta$ =0.337; p= .003). Therefore hypothesis 4 is supported. Hypothesis 5 predicts that the use of Facebook as work related internal communication has a positive effect towards dedication. The results turn out that these two variables are positively related but it is not statistically significant ( $\beta$ = 0.139; p= .071). Thus, hypothesis 5 is not supported. Hypothesis 6 predicts that the use of Facebook as work related internal communication has a positive effect towards absorption. The results turn out that these two variables are positively related but it is not statistically significant ( $\beta$ = 0.243; p= .077). Thus, hypothesis 6 is not supported.

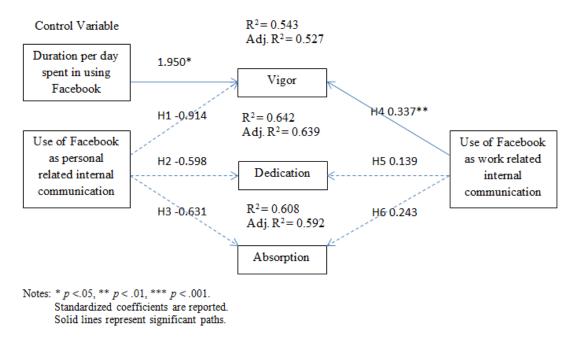


Fig. 1 Regression Result

The R-square suggests that all independent variables in the regression model can explain vigor, dedication and absorption by 54.3 percent, 64.2 percent and 60.8 percent. R squared modified for the number of explanatory terms in a model or Adjusted R squared is 0.527, 0.639, and 0.592 in order. Moreover, one control variable, namely duration per day spent in using FACEBOOK, shows significant effect on vigor ( $\beta$ = 1.950; p= .012), on the other hand dedication and absorption shows no significant effects ( $\beta$ = .723; p= .096), ( $\beta$ = .714; p= .305).

# **CONCLUSION AND DISCUSSIONS**

This present study aimed at investigating the effects of Facebook used for workrelated and personal-related internal communication towards the components of employee engagement namely vigor, dedication and absorption. Results from the regression analysis that Facebook app used for personal related internal communication has negative effects towards vigor, dedication and absorption, which means that the higher the lecturers use Facebook app in sending personal communication the lesser it has an effect on their performance of their jobs in terms of vigor, dedication and absorption. This implies that when employees use Facebook app in sending personal messages to friends and families about nonwork related issues, it may interrupt the performance of their respective job assignments and may not be as productive. This is contrary to the study made by Charoensukmongkol (2014), which showed that the use of social media aids employees in the performance of their job. These contradicting results indicate that messenger apps are now used to be a venue in which people at work exchange rumors and gossips around, which malign the workers intention of completing a certain job assignment (Herbsleb, 2002). Exchanging information about one's personal whereabouts or sharing some mundane personal news over messenger apps have become disruptive at work since it is time-consuming and distracting.

On the other hand, Facebook app used for work-related matters has shown positive relationships towards the components of employee engagement. Results reveal that Facebook used for work-related matters has positive effect towards vigor, dedication and absorption, which means that the higher the employees use Facebook app in sending, sharing and

receiving work-related information, the higher they engage in their work, thus showing vigor, dedication and absorption in the process. This implies that employees will be motivated to work when information send to them will be as fast as it is sent in Facebook app. Moreover, the use of Facebook will develop loyalty and sense of worth in the workplace. Employees will feel fully concentrated on his work, genuinely happy, and deeply involved in the performance of work. This result is supported by Aunyawong (2015) and Charoensukmongkol (2014), who said that the social media at work facilitates better business performance and job contentment, respectively. This may be similarly true with the use of Facebook app at work as it facilitates better job performance and contentment by the quick exchange of information.

This study therefore resolves that Facebook apps have positive and negative effects toward employee engagement when used for work-related and personal-related internal communication respectively. This means that as a method of internal communication, messenger apps and other technological advancement in communication may be applied as it facilitates faster and better delivery of messages. With the use of digital technology nowadays, it is apparent that organizational communication could achieved in a much faster manner compared to the traditional means some years back. This faster exchange in communication helps organizations to motivate workers to do their jobs better by having better engagement such as developing more loyalty towards the company, being happy with work and have the full energy to perform tasks. However, it should be noted that this result is only limited to work-related matters and not with personal-related issues. As the results show, the use of Facebook app for personal-related matters creates negative effect towards employee engagement as it may interrupt the workers in the process of completing their job. This means that there is supposed to be a regulation within the company that messenger app should only be limited to work-related exchange of information during office hours, and not to be used for chit-chatting some personal stuff. The use of Facebook app for personal use should be done not within the context of work and should not be used as a rumor mill. The use of technology, as it is inevitable, should work in favor of the organization, and Facebook app along with other messenger apps and social media platforms available nowadays should be used wisely and accordingly.

This study proves beneficial to the company as it shows that Facebook app, if used accordingly, could promote employee engagement by making them be more dedicated to their job, to become more energetic and to be happier. This may also provide additional knowledge to researchers who are interested in exploring the effects of new technologies in Facebook of communication, organizational set-up, and job performance among others. This study also adds on the body of knowledge regarding the use of technology in organizational communication and specifically the use of Facebook app along with other messenger app available nowadays.

Despite the interesting findings of this study, several weaknesses of this research should be tackled. Firstly, the number of respondents is not enough to make general and meaningful conclusions about the results of the study. Future study should employ more than thirty respondents to establish better reliability and validity of the results. Secondly, the study made use of a self-report questionnaire which may pose bias among the respondents as they can answer anything from there. There is no internal control as to their behavior in using Facebook app in their line of work. Thirdly, this study is only limited among the lecturers in the university. The study should investigate its relevance and applicability in other organizations such as SMEs which are essential to the country economy (Aunyawong et al., 2020). Finally, the qualitative method should be applied to collect depth information from the respondents (Choopak & Aunyawong, 2018).

This present study is beneficial because if found to be effective, Facebook and other messenger apps could be endorsed as a means of communication within the organization as it encourages employee engagement. Moreover, this study will also be useful in determining whether this present generations of workers are adaptive with technology. If found that employees prefer to use Facebook app for work-related and personal-related communication, it means that instant messaging brings about change in the communication system. Finally, this study adds on to the body of knowledge that explores the use of social media, technology, applications and internet in the communication process of the organization. The literatures reviewed in this present study will be beneficial for future researchers who are interested in this particular topic in their future researches.

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# TYPES OF DIGITAL MARKETING TACTICS AFFECTIING EXPECTED BENEFITS: A CASE STUDY OF B2C BUSINESSES IN NONTHABURI, THAILAND

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#### **ABSTRACT**

The objective of this survey research was to understand the influence of digital marketing types in relation to expected benefits of B2C Businesses. The hypotheses were based on the different digital marketing tactics affecting different expected benefits of B2C entrepreneurs. Participants in this study were 100 individuals, running B2C Businesses in Nonthaburi, Thailand. Sampling technique used to select samples in this study was convenience sampling. The researcher was approached to gather the completed questionnaire from entrepreneurs. The statistics used were frequency, percentage, mean, standard deviation.

The findings found that the higher use intensity of website marketing leads to more corporate image development, but not to brand awareness creation. Moreover, they found that the higher use intensity of website marketing leads to more brand awareness creation and more corporate image development as well, but lower extent to corporate Image Development. As a result, these results provide support to previous literature regarding the main digital marketing technique most of the B2C businesses use to create brand awareness is social media marketing. These results also sustain earlier literature that social media marketing can improve brand awareness and corporate image.

**Keywords**: Digital Marketing, E-Commerce, Brand Awareness, Corporate Image

#### **INTRODUCTION**

In simpleminded terms, digital marketing is the promotion of products or brands via one or more forms of electronic media. Digital marketing differs from outdated marketing in that it involves the use of channels and methods that enable an organization to analyze marketing campaigns and understand what is working and what isn't – typically in real time. Digital marketing includes Website Page Marketing, Content Marketing, SEO Marketing, Social Media Marketing, Online PR Marketing, E-mail Marketing, Mobile & Apps Marketing, Online Video and Viral Marketing, etc. (SAS Institute Inc., 2015). Digital Marketing has many benefits such as to generate higher conversion rates, save firm money, to enable real-time customer service, to generate higher revenues, to deliver higher ROI from company's campaigns, and to compete with large corporations (Geogorio, 2015).

Although B2C companies perceive usefulness of digital marketing, they can be unsuccessful due to inappropriate digital marketing strategies with their expectation. Some businesses spend much of their budgets on digital marketing without deliberating the certainly effective strategies. In some case, many entrepreneurs only focus on Website Marketing with the expectation of increasing customers. They sometimes neglect another important type of digital marketing tactics, Social Media Marketing on Smartphone (Palermo, 2014) which can lead their potential customers to have more opportunities to access to the

product information because the people, both teenagers and mature persons, extensively Smartphone users, can perceive marketing communications even though when they go outside. On the other hand, many businesses emphasize Social Media Marketing rather than Website and Landing Page Marketing caused by cost-saving issue. Social Media Marketing allows businesses to engage in well-timed and direct end-consumer contact at relatively low cost, but Social Media cannot lead to good corporate creditability. (Kaplan & Haenlein, 2010). However, both types of Digital Marketing Tactics have their own specific advantage. Furthermore, the extant study found that many small businesses are still slow to pick on the trend, Digital Marketing. They think digital marketing is as complicated as it seems (Gregorio, 2015).

The positive effect can occur from digital marketing strategy suitability with the businesses' expected benefits. Meanwhile negative effect can arise from digital marketing strategy impropriety with the businesses' expected benefits. It is important to understand use intensity of different digital marketing strategies that explain the result of specific benefits. This study emphasizes the implications of digital marketing, which is counted as scientific approach to generate beneficial information to guide the potential B2C businesses in how best to set their marketing strategies (Wind & Mahajan, 2001). This study is believed that there is a lack of contribution into digital marketing. Although there are numerous printed materials about Marketing, they cannot be applied directly to Digital Marketing (Fana & Tsai, 2010). Digital Marketing Tactics are relatively new and still evolving (Wind & Mahajan, 2001). Because many successful companies have their own digital marketing strategies depended on their different expectations, the objective of this research was to understand the influence of digital marketing types in relation to expected benefits of B2C Businesses in Nonthaburi. To accomplish this objective, related studies are cautiously reviewed. Hypotheses are designed and tested using the survey data collected in Nonthaburi in 2020Nonthaburi. Research of the possible associations between both types of digital marketing, Website Marketing and Social Media Marketing, and expected benefits will definitely assist to provide the new businesses with useful implications for planning the digital marketing strategies.

Because many successful companies have their own digital marketing strategies depended on their different expectations, the objective of this research was to understand the influence of digital marketing types in relation to expected benefits of B2C Businesses in Nonthaburi. To accomplish this objective, related studies are cautiously reviewed. Hypotheses are designed and tested using the survey data collected in Nonthaburi Thailand in 2020.

The scope of our research has been limited within the boundary at two types of digital marketing tactics (website marketing and social media marketing) concerned for doing businesses in Nonthaburi. The business model that the author has chosen is the B2C business. This has allowed the author to exactly measure the different benefits between website marketing use and social media marketing use, To meet the research purpose, the B2C businesses in various industries are focused as they are the research topic, such as coffee, fashion clothing, soccer clothing, cosmetics, shampoo, chocolate, sports shoes, language academy, music academy, garage, car accessary, magazine, and automobile parts. Since this research is aimed to study two types of digital marketing tactics, other digital marketing tactics are excluded. To further confine this research, the author could have only considered information retrieved from B2C businesses locating in Nonthaburi, apart from other areas.

#### LITERATURE REVIEW

#### **2.1 B2C (Business to Customer)**

In 1979 the conception of B2C, or business-to-consumer, was originated by Michael Aldrich, an English innovator, who developed online transactional process allowing customers communicate with businesses (Shelley, 2011). B2C is the form of e-commerce in which businesses trade goods or services to clients. In other words, it is one of classification of electronic commerce, together with B2B business, C2B business and C2C business in a traditional manner, it could relate to personal shopping for any product at home (Garbade, 2011). More newly, the B2C businesses including e-tailing and virtual storefronts, so well known, relates to the online vending of merchandises in which makers or shopkeepers vend their merchandises to clients via the Internet (Sandhusen, 2008).

# 2.2 The importance of Digital Marketing

Entrepreneurs trendily adopt digital marketing to their B2C Businesses. Digital marketing is a marketing developed by utilizing digital technology to communicate with clients. The major purpose is to advertise brands via diverse types of digital media. It is organized by a wide choice of goods, service, and brand marketing strategies, which chiefly utilize the Internet as an essential promotional media, in addition to smartphone and original Television and radio. However, it also extends to non-Internet channels that provide digital media, such as mobile phones (both SMS and MMS), callback and on-hold mobile ring tones, social media marketing, display advertising, e–books, optical disks and games, and any other form of digital media.

Digital Marketing is so extensively that consumers have access to information any time and any place they desire it. Previously, when the messages people got about the products or services came from company and consisted of only what the company wanted them to perceive. Digital Marketing is an ever-growing source of news, entertainment, shopping and social interaction, and consumers are currently disclosed not only to what the company tells about its brand, but what the media, friends, relatives, peers, etc., are telling likewise. And they are quite possible to believe them than the company. People want brands they can trust, companies that know them, communications that are personalized and relevant, and offers responded to their requirements and favorites (Geogorio, 2015). Several industries, especially by the leading companies among each industry, use digital marketing as a channel or tools to promote or market products and services to clients and businesses with a very productive cost from benefit in creating individually tailored approach (Ryan & Jones, 2009). B2C businesses expect many benefits of Digital Marketing Tactic adoption. This research, however, focuses on three concepts relating to those expectations as follows.

# 2.3 Brand Awareness Creation

Many B2C businesses and SMEs use digital marketing to create their brand awareness (Aunyawong et al., 2020). Brand awareness is the extent to which a brand is recognized by potential customers, and is correctly associated with a particular product. Expressed usually as a percentage of the target market, brand awareness is the primary goal of advertising in the early months or years of a product's introduction (Percy & Rossiter, 1992). Brand awareness is related to the functions of brand identities in consumers' memory and can be reflected by how well the consumers can identify the brand under various conditions. Brand awareness includes brand recognition and brand recall performance. This does not necessarily require that the consumers identify the brand name (Keller, 1993).

A brand is the meaning behind the company's name, logo, symbols and slogans. Having a unique and memorable brand helps B2C businesses build brand awareness and create a long-term position in the marketplace. Brand awareness is a measure of how well B2C businesses' brand is known within its target markets. Creating brand awareness is usually the first step in building advertising objectives. Before B2C businesses can create a favorable impression or motivate customers to buy, they have to become aware of B2C businesses' brand and its meaning. The highest level of brand awareness is top of mind awareness. This is when customers think of B2C businesses first when they need to make a purchase within B2C businesses' product category. (Farris, Bendle, Pfeifer, & Reibstein, 2010). B2C businesses can build top of mind awareness through repeated exposure and consistent delivery of a good product or service over time. This is a huge advantage in the market when customers enter a buying situation and B2C businesses' brand immediately comes to mind first. The importance of brand awareness has become increasingly significant with the evolution of the Internet and digital technology. The public is more equipped with mobile and social media tools to communicate quickly about B2C businesses' brand -- good or bad. This means that establishing a strong reputation for good products or services, integrity in B2C businesses' business practices and community involvement are even more critical to long-term success (Kokemuller, 2007).

# **2.4** Corporate Image Improvement

B2C businesses employ digital marketing in order to improve their corporate image. The company image is referred to the set of perceptions that people have of organizations (Lemmink, Schuijf, & Streukens, 2003) "Corporate image" was once advertising terminology but is nowadays a common phrase referring to a company's name. The "image" is what the public is supposed to see when the corporation is mentioned. In other words, corporate image has been defined variously as the total impression that the entity makes on the minds of individuals (Dichter, 1985); and the image associated with the name of an organization (Gatewood, 1993).

Several factors have contributed to the increasing importance of corporate image in recent years. For example, the business climate in the Indonesia has become one of environmental complexity and change (Aunyawong et al., 2020). This has forced many B2C businesses to significantly alter their strategies to better compete and survive. The acceleration of product life cycles is another vital dimension of the turbulent business environment (Olins, 1989). Globalization has been still another catalyst in the rise of corporate image programs, as companies have sought ways to spread their reputations to distant markets (Young, 1996). A related factor is that as a corporation expands its operations internationally, or even domestically, through acquisitions, there is a danger that its geographically dispersed business units will project dissimilar or contrary images to the detriment of corporate synergy (Schindler, 2000).

A final factor stimulating the current interest in corporate image is society's growing expectation that corporations be socially responsible. Many of today's consumers consider the environmental and social image of firms in making their purchasing decisions. Some B2C businesses have recognized this reality and reaped tremendous benefits by conducting themselves in a socially and environmentally responsible manner. Some of these B2C businesses act out of genuine altruism, while others act out of a simple recognition of the business benefits of such behavior (Ind, 1992).

# 2.5 Factors relating Expectation of Digital Marketing Adoption

This study focuses on the implementation of digital marketing, Use intensity of Website Marketing and Use intensity of Social Media Marketing (SMM), which apparently relate to the expectation of B2C Businesses.

# 2.5.1 Use intensity of Website Marketing

In this research, B2C Businesses will be measure their uses of website as marketing tactic. Use intensity of Website Marketing is the extent of website which is being use by B2C businesses. Website Marketing refers to a broad category of advertising that takes many different forms, but generally involves any marketing activity conducted online. Marketers have shifted their efforts online because it tends to be significantly less expensive.

The website also presents exciting new opportunities for companies to profile their customers. The interactive space of the Internet simplifies a company's ability to track, store, and analyze data about a customer's demographics, personal preferences, and online behavior. This data allows the advertiser to provide a more personalized and relevant ad experience for the customer.

Website marketing is a new form of "non-intrusive" advertising, in which the customer actively chooses to visit and interact with the company's marketing communication efforts. Recent efforts involve the merging of information and images in innovative ways. Measures of the duration of time spent at a web site, depth of search through the site, navigation patterns through the site, and repeat visits to the site are crucial outcome measures for evaluating the effectiveness of such a site (Tsang & Tse, 2005).

# 2.5.2 Use intensity of Social Media Marketing (SMM)

In this research, B2C Businesses' use intensity of Social Media Marketing will be measured as well. Use intensity of Social Media Marketing (SMM) is the extent of Social Media, such as Facebook, Instagram, Youtube, etc., which is being used by B2C businesses. Social media marketing is a form of Internet marketing that utilizes social networking websites as a marketing tool. The objective of SMM is to create content that users will share with their social network to help a company increase brand exposure and broaden customer reach. SMM helps a company get direct feedback from customers (and potential customers) while making the company seem more personable. The interactive parts of social media contribute customers the opportunity to ask questions or voice complaints and feel they are being heard. This aspect of SMM is called social customer relationship management.

SMM became more public with the enlarged acceptance of websites such as Twitter, Facebook, MySpace, LinkedIn, and YouTube. In response, the Federal Trade Commission (FTC) has updated its rules to include SMM. If a company or its advertising agency offers a blogger or other online commenter with free merchandises or other inducements to generate positive buzz for a manufactured goods, the online comments will be treated legally as endorsements. Both the blogger and the company will be held responsible for ensuring that the incentives are clearly and noticeably disclosed, and that the blogger's posts contain no misleading or unsubstantiated statements and otherwise complies with the FTC's rules concerning unfair or deceptive advertising (Rothstein & Rouse, 2011).

# 2.6 Hypothesis Development

For this research, we have created the conceptual framework based on existing knowledge and theoretical perspectives from critical literature review. The conceptual framework has been developed to explain the relationship between the use intensity of two types of Digital Marketing Tactics, Website Marketing and Social Media Marketing, and two different expectations. Independent variables are Use intensity of Website-Marketing and Use

Intensity of Social-Media Marketing. Dependent variables are Corporate Image Development and Brand Awareness Creation. Accordingly, data from both primary and secondary sources will be used to test the validity and to support the conceptual framework in answering the research problem.

To create brand awareness, the companies have to design the advertisement emphasized the interesting and recognition of potential customers and keep out of sale volume (Percy & Rossiter, 1992). Previous study found that most of the US B2C businesses, using social media, mostly expected to create brand awareness. However, others expected to create Brand loyalty, and to increase sale volume (Chainirun, 2011). Social Media Marketing can have an exponential effect on brand awareness. According to a study from Ipsos, 38 percent of people have recommended a brand they "like" or follow on a social network (Roesler, 2014). In contrast, Website Marketing, particularly Landing Page, was quite used to increase sale volume rather than create brand awareness. The B2C businesses customarily use landing pages to reach information of potential customers. The B2C businesses propose the website visitor to leave their contact information for some benefits, such as product discount (Nusse, 2014). As both digital marketing tactics are used for different mainly expectations of different, the following is hypothesized:

H1a: Use Intensity of Website-Marketing negatively relate to Brand Awareness Creation.

H1b: Use Intensity of Social-Media Marketing positively relate to Brand Awareness Creation.

Respect to positive information provided one-sided to customers, many B2C businesses often use website as the main marketing strategy to improve their corporate image. Those B2C businesses also believe that company Website-Marketing makes their businesses more corporate creditability than Social-Media Marketing due to domain name registration etc (Pongwittayapanu, 2008). However, some B2C businesses, focusing on social Media, expect more advantages in terms of customer communication, so they can know customers' feedback and deal with the problems effectively. Moreover, Social-Media Marketing can represent modern corporate image (Wijaya, 2014). The concept of Corporate Image is usually associated with large B2C businesses, but small B2C businesses also concern a corporate image. As B2C businesses using of Website-Marketing are more directly concern with corporate image issue, the following is hypothesized in order to compare the extent between both marketing tactics:

H2a: Use intensity of Website-Marketing positively relate to Corporate Image Development.

H2b: Use Intensity of Social-Media Marketing positively relate to Corporate Image Development.

#### RESEARCH METHODOLOGY

#### 3.1 Samples and data collection

Participants in this study were individuals, running B2C Businesses in Nonthaburi, Thailand. Sampling technique used to select samples in this study was convenience sampling. The researcher was approached to gather the completed questionnaire from entrepreneurs or business owners, marketers and managers in 100 B2C Businesses, using website marketing and social media marketing, in various industries (including coffee, fashion clothing, soccer clothing, cosmetics, shampoo, chocolate, sports shoes, language academy, music academy, garage, car accessary, magazine, and automobile parts) in May 2020. The respondents in each B2C business were contacted in person and were invited to reply the questionnaires.

After those respondents accepted, totally 100 sets of questionnaires were diffused to them. All 100 completed questionnaires were gathered back by the researcher personally. The response rate expected is 100%.

# 3.2 Data analysis

Descriptive analysis of the empirical data disclosed that of 100 completed surveys. It was carried out employing by regression. The regression aims to learn more about the relationship between "several independent variables", including both main independent variable and control variable, and a dependent variable.

#### **RESULTS AND FINDINGS**

According to Hypothesis 1a, Use intensity of Website-Marketing will be negatively related on Brand Awareness Creation. The result depicts that the relationship between two variables is positive and statistically insignificant ( $\beta$ =0.161; p=0.152). As a result, the Hypothesis 1a cannot be supported. In accordance with the Hypothesis 1b, Use Intensity of Social-Media Marketing will be positively related on Brand Awareness Creation. The result, as shown in the Table 8, depicts that the relationship between two variables is negative and statistically insignificant ( $\beta$ =1.033; p<0.001). Therefore, the Hypothesis 1b can be supported.

Additionally, the significant relationships between control variables brand awareness creation are found as the following. Business age positively associates with brand awareness creation ( $\beta$ =0.009; p=0.408) However, because the p-value is higher than 0.05, this result cannot be statistically supported.

According to dummy variables regression (dependent variable: brand awareness creation), the researcher selects one type of business which is beverage as a benchmark. This type of B2C business will be omitted from the regression and use for comparison with other types of B2C business that are included in the regression. Beta of the constant is used as a representative of the brand awareness creation of the type of B2C business that is omitted (beverage) is -0.952. There is only one result is statistically supported. Such result is found that negative beta of garage ( $\beta$ =1.002) means the brand awareness creation of B2C businesses which are garage is lower than the brand awareness creation of B2C businesses which are beverage. Because the p-value is lower than 0.01 (p-value=0.007), this result is statistically supported.

As the researcher use Corporate Image Development as dependent variable, R square is 0.900. It means that the regression model can explain about 90% of Corporate Image Development. R squared modified for the number of explanatory terms in a model or Adjusted R squared is 0.848.

According to the Hypothesis 2a, Use Intensity of Website-Marketing will be positively related on Corporate Image Development. The result depicts that the relationship between two variables is positive and statistically significant at 0.01 level ( $\beta$ =0.498; p<0.001). Therefore, the Hypothesis 1a can be supported. In accordance with the Hypothesis 2b, Use Intensity of Social-Media Marketing will be positively related on Corporate Image Development. The result, as shown in the Table 10, depicts that the relationship between two variables is positive and statistically significant at 0.05 level ( $\beta$ =0.463; p=0.013). Therefore, the Hypothesis 1b can be supported.

Additionally, the significant relationships between control variables corporate image development are found as the following. Business Age positively associates with corporate image development ( $\beta$ =0.005; p=0.643) However, because the p-value is higher than 0.05, this result cannot be statistically supported.

According to dummy variables regression (dependent variable: corporate image development), the researcher selects one type of business which is beverage as a benchmark. This type of B2C business will be omitted from the regression and use for comparison with other types of B2C business that are included in the regression. Beta of the constant is used as a representative of the corporate image development of the type of B2C business that is omitted (beverage) is 0.299. There is only one result is statistically supported. Such result is that negative beta of garage ( $\beta$ =1.079) means the corporate image development of B2C businesses which are garage is lower than the corporate image development of B2C businesses which are beverage. Because the p-value is lower than 0.01 (p-value=0.002), this result is statistically supported, as shown in Figure 1.

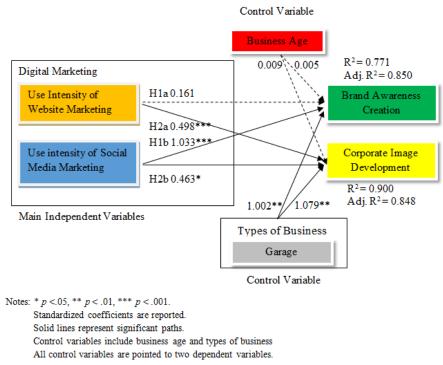


Fig.1 Regression Result

# **CONCLUSION AND DISCUSSIONS**

This research aims to understand the influence of digital marketing types in relation to expected benefits of B2C Businesses in Nonthaburi. The main effect of use intensity of website marketing on brand awareness creation and corporate image development, evidence strongly suggests that the higher use intensity of website marketing leads to more corporate image development, but not to brand awareness creation. Moreover, the main effect of use intensity of social media marketing on brand awareness creation and corporate image development, evidence strongly suggests that the higher use intensity of website marketing leads to more brand awareness creation and more corporate image development as well, but lower extent to corporate Image Development. As a result, these results provide support to previous literature regarding the main digital marketing technique most of the B2C businesses use to create brand awareness is social media marketing. (Chainirun, 2011; Roesler, 2014). These results also sustain earlier literature that social media marketing can improve brand awareness and corporate image (Pawoot, 2008; Wijaya, 2014).

The findings from this study offer additional contribution to research that emphasizes the role of digital marketing tactics used by the B2C businesses. Although previous studies found that using website and social media marketing could benefit B2C business success, the present study provides supplementary comprehension that the types of business is also probably conditional on brand awareness creation and corporate image development. This study found that the specific type of B2C Businesses, garage, is unnecessary to create their own websites in order to develop their corporate image. They have good corporate image, comparing to others, without website marketing. Thus, future research that aims to investigate the impact of different types of businesses using digital marketing tactics on expected benefits. Moreover, the researcher should consider some other business models such as Business-to-Business (B2B), Business-to-Customer (B2C), Business-to-Government (B2G), Customer-to-Business (C2B), Customer-to-Customer (C2C), Government-to-Customer (G2C), People-to-People (P2P), and so on.

Regardless of these findings, this study has some limitations. First, the results are based on cross-sectional data, so making causality hard to be implied. Future study should solve these problems by using longitudinal data collection. Second, due to the time limitation, the samples collected for this research arose from a few B2C businesses in Nonthaburi. The generalizability of the findings is confined by excessively small sample size. Consequently, future research should gather data in a larger sample size. Third, the owners or entrepreneurs, marketers, and managers of B2C-Self evaluated their own businesses concerning brand awareness and corporate image. Therefore the evaluation might be exaggerated and unreliable as those respondents might be untruth to the interviewer or might attempt to disguise their attitudes. The B2C business evaluation by customers is good alternative method. Forth, the questionnaire was adapted from doctoral dissertation, not from research published in top journal. It also consists of a few questions in each aspect. Subsequently, a poor-designed questionnaire might not meet the research purposes because respondents might not fully understand the questions and are probable to refuse to answer. This was caused by inadequate preparatory work. A good questionnaire prepared and worded to inspire respondents to provide precise, unbiased and comprehensive information is needed. Future research that addresses these limitations may provide better accurate information about the impact of digital marketing tactics on brand awareness creation and corporate image development.

This study provides the new B2C businesses with useful implications for planning the proper digital marketing strategies. This research also provides the existing B2C businesses with useful implications for improving business effectiveness, especially in terms of brand awareness and corporate Image.

In conclusion, the researcher suggests that several digital marketing tactics have their own prominent point. B2C businesses are advised to not only focus on one digital marketing tactics, but they also combine those tactics as B2Cs' strategy. This leads to excellent efficiency in brand and corporate image. Then, it also leads to business success.

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# DIGITAL MARKETING STRATEGIES

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#### **ABSTRACT**

Digital marketing is the new type of Marketing activities by using technology and digital tools to developing an implementation of digital marketing. Therefore the business sector starting to see an importance and would like to adjust the Marketing strategy with integration, Creating new innovation in order to help the business succession in marketing. Regarding to above important, this article aims to study the digital marketing strategies and from literature reviewing has found that the digital marketing including 1) Utilization from Modern marketing communication. 2) Focusing on social media. 3) Ability of Marketing content creating. 4) Applying an influencer marketing on social media and 5) Online corporate reputation management.

The Body of knowledge/Discovered from literature reviewing found that the Body of knowledge can be used in Modern marketing communication development in order to buil good relationship with customer or partner in business including stakeholders via approachable communication method by delivering and presenting the Value added of products and service to all stakeholders efficiency and reasonable.

**Keywords**: Digital Marketing Strategies, Social Media, Online corporate Reputation Management.

#### INTRODUCTION

The digital era has opened up the door for consumers to communicate back with the company and to communicate with each other. They can publish their own materials and be co-operators in the information distribution. The digital revolution has changed the way consumers perceive business strategies. From the age of finding out the day's events on the morning newspaper, to instant gratification with updates from social media, people's perception has been shaped by a technology based bubble, whose access is limited to a digital platform (Ghotbifar, 2017). Channels such as Facebook, Youtube, Wikipedia, Twitter, different blogs and Instagram makes it possible for users to both create, publish, comment and spread information. The new technique threatens the traditional business models and marketing channels, however it creates new opportunities for companies to reach customers, communicate, and collect behavioural information that is valuable both in marketing and CRM (Hennig-Thurau et al., 2010). Consequently, businesses have implemented strategies that are carried out in that media platform to provide an interactive, focused and measurable way of reaching consumers. This strategy is commonly known as Digital Marketing. (Lamberton & Stephen, 2016).

The study provides a broader background about the changing environment with new technology for companies. It also describes the problematic issues for companies coming up against evolving technology and how the Internet is affecting the marketing strategy. It is faster evolving and the environment is under constant change, depending in which

environment a company is operating. To be able to stay competitive a strategy is vital for a company's long-term prospects and growth, where different strategies are more suitable than others (Johnson et al., 2011). Marketing is a process of investigating the market needs and present a solution to satisfy them (Lundén & Svensson, 2008). It aims to create value, strong long-term relationships and communicate the value of its products and services (Armstrong et al., 2009). The globalisation is creating new market opportunities, which in turn is creating a need for new and innovative marketing strategies to be able to stay competitive. One marketing strategy that is under strong development is the digital marketing strategy (Chaffey et al., 2009). The Internet is providing a changing competitive environment that affects the marketing strategy (Sultan & Rohm, 2004). Digital marketing could be defined as achieving the objectives one has set out with the help of digital technologies (Chaffey et al., 2009).

Nowadays, pieces of information can be found everywhere in people's environment, and information is a basic element of an individual's everyday life. This means that people are able to exchange information and they can access data that was neither so easy nor possible in the past, as they can be well informed about contemporary news via internet and social networking. Internet is currently used for many reasons, not just for the exchange of information, but also for business development, increasing competition and the development of trade. Internet use is becoming a necessity, providing immense advantages when properly used and making use of applications provided by the Internet, such as E-Marketing. In the past, the promotion and purchase of products and services was done only through the interaction of individuals and the companies, and the view of communication through a screen to develop the business seemed utopian. But now, through the development of technology, the concepts of ecommerce and e-marketing / digital marketing are growing very fast. This aims to investigate and present the use of digital marketing. The theoretical background of the study is presented based on literature and articles. As far as the main results of the survey are concerned, it appears that most of the companies apply digital marketing in their activities, and those who do not, it emphasizes that they will use it in the future.

# LITERATURE REVIEW

# 2.1 Underpinning Theories: Human Capital Theory

With the constantly adapting and changing technology of today a large number of the world's population uses digital media in some form or another. As digital becomes more and more embedded in our everyday life, more industries and companies are seeking ways in which to use the digital world to their advantages. Marketing is such an industry. Ryan and Jones (2012: ix) state that "if one wants to connect with one's customers today and into the future, digital channels are becoming essential to the marketing mix". In order to understand the effects and necessity of digital marketing one must first understand the history of digital marketing, what the term itself means and what digital marketing entails. The term 'digital marketing' was first used in the early 1990s as the Internet and World Wide Web were launched becoming a key aspect of everyday life for many people around the world. The term has seen a few adaptations and still varies from country to country (Chaffey and Smith, 2013, p. 1). In the United States of America it is known as 'internet marketing' while the United Kingdom uses the term 'e-marketing'. As a result the terms can often be used interchangeably but 'digital marketing' is becoming the most widely used. Digital marketing is a term that encapsulates and includes both terms as it is "any type of marketing activity that needs some form of interactive technology for its implementation" (Dann and Dann, 2011, p. 4). Digital marketing grew with the advances in technology and the increasing reliance by many consumers on the internet and its interactivity. Ryan and Jones (2012, p. 5) state that many marketing advances are intertwined with the development of new technologies. The internet is perhaps the greatest communication and connection tool that history has known making it a key resource; one that marketers must utilize. However digital marketing is comprised of and makes use of more resources than the internet. That digital marketing can be divided into three different forms of interactive marketing. They are "marketing over internet protocol, interactive marketing and mobile marketing" (Dann and Dann, 2011, p. 6). Marketing over internet protocol includes all forms of marketing that use the internet in any way. Digital Marketing has turned into an essential tool to compete in the market. Since everyone is unintentionally immersed into the digital era, its usage is the most efficient tool to reach potential consumers (Kannan,2017). Digital marketing is a form of direct marketing which links consumers with sellers electronically, using interactive technologies like mobile applications, social media, emails, websites, online forums and interactive television (Kotler and Armstrong, 2009).

Digital marketing is also referred to as e-marketing and includes digital or online advertising, which delivers marketing messages to customers. Chaffey et at (2012), define digital marketing, is the achievement of marketing objectives through the use of electronic communications technology. This means that brands and their products should not be making the aims and objectives about digital media and marketing, rather working the digital business strategy around the objectives, as well as incorporating digital methods into the objectives if the business depends on it. The advantages of digital marketing can come from different marketing methods. For example, the marketing grid of Ansoff (1957) can be updated to include digital marketing methods and strategies. Businesses can use the Internet to see what existing products are currently selling well to existing markets. For new markets, in the Market Development and Diversification strategies, digital methods can be used to reach across the globe using the Internet. For new products in Product development and Diversification, the internet not only allows delivery to be much easier, but other digital software enables companies to track what types of products customers like.

#### 2.2 Digital marketing strategy

The new technology is not a new area for research, however it is fast evolving. Already Porter and Millar (1985) mention the strategic importance of new technology as an opportunity to gain competitive advantages. A more efficient organisation both internally and in interaction with customers, suppliers and competitors, links them together. The Internet has created a large opportunity to share and communicate data through electronic movement of information. Companies use it both internally in organisation and externally with suppliers, customers and other people outside the organisation to facilitate business purposes (Bandyopadhyay, 2002). Sharma and Sheth (2004) further explain that the Internet revolution changed the behaviour of customers and sellers since it provides new exchange platforms and communication channels. The level of adoption of the Internet, channels and technology vary from company to company. Mobile, the Internet, e-mail, and video are just a few channels that will increase in the future and suppliers need to have knowledge about these techniques since buyers use the Internet as a source to find suppliers on a global level (Leek et al., 2003). Homepages are something that almost every business is using. However, according to Bonson-Ponte et al. (2008) and Schmidt et al. (2009) far from all companies fully utilize the homepage and all the features that it could bring. BonsonPonte et al. (2008) argues that there is a positive relationship between the navigation capability and the content presented. Further Schmidt et al. (2009) argues that the homepage design is mutually important for the performance and overall effectiveness of a webpage.

The scope of digital marketing strategy Although enhancing website experiences that are effective for mobile and desktop users will be a central part of the strategy, digital marketers should also examine broader issues of how to: use marketing automation tools for

customer relationship development. These may include email, mobile and web-based personalisation based on CRM.databases; develop the overall customer experience across multiple channels, including using structured experiments such as testing using the range of martech, maximise the results from partnering and advertising with online intermediaries such as publishers, and influencers such as bloggers, harness social media marketing, both through use on its own site through user-generated content and through paid ads within the main social networks such as Facebook, Instagram, LinkedIn and Twitter. Strategy development may also involve redesigning business processes to integrate with partners, e.g., suppliers and distributors. As the Internet and digitally enhanced trading environments are more widely adopted, the scope for redesigning business processes extends even further. Marketers not only need to look for opportunities to use technology to enhance their offer but must also ensure they protect their competitive positioning.

# 2.3 Digtal Marketing Strategy Development

Chaffey and Bosomworth (2013, p. 12) claim that the main focus of the development of digital marketing strategy is the incorporation of the important elements of one's marketing strategy, new ideas from other plans and the movement towards an online setting. With the incorporation of traditional marketing strategy techniques into digital marketing strategy, an organization is able to adapt the strategy as is needed (Stokes, 2012, p. 16). Another recommendation for digital marketing development is to break down the various digital marketing strategies such as the division of "targeting and segmentation, positioning, proposition and the marketing mix, brand strategy, online presence, engagement strategy and social media marketing strategy" (Chaffey and Bosomworth, 2013, p. 12-15). Not all of these various divisions are necessary for most organizations; however, the knowledge of the divisions would be useful when beginning to establish a digital marketing strategy. In order to develop a digital marketing strategy, one must establish the goals and objectives of the digital marketing strategy. A favored approach for establishing marketing strategy objectives is "SMART" (Dann and Dann, 2011, p. 76) which breaks down into 'specific', 'measurable', 'actionable', 'realistic' and 'timetabled'. 'Specific' refers to a clear statement of what is trying to goal is trying to be reached and why. 'Measurable' highlights the need for the ability to measure one's progress and success with regards to goals and objectives. 'Actionable' refers to the need for action-orientated tasks in order to reach set goals. Where 'measurable' indicates what is going to happen, 'actionable' indicates how it is going to happen. 'Realistic' highlights the need for objectives that are real and actually obtainable. 'Timetabled' dictates when the objectives will be achieved.

#### 2.4 Established Strategies

Digital marketing strategies are organization-specific depending on the product or service offered and the segmentation and target market of the organization. This means that although many international companies have established strategies, they may have to be adapted or reworked. However, examining the outlines of effective, established strategies will ensure an understanding of what will work and what will not work when applied to the Convert, Engage (RACE)" (Chaffey and Bosom worth, 2013, p. 14). Reach focusses on the initial stages of digital marketing strategy with the determination of the organization's digital marketing goals and objectives and how to build the organization's online presence and customer awareness with regards to the organization's brand (Chaffey and Bosomworth, 2013, p. 14). Act focuses on how the organization is going to connect to its customers and which digital tools are best suited to the organization's digital marketing strategy and its overall brand. Convert focusses on the desired and expected effects of the increased online presence with regards to increased sales, increased customer base and how the digital

marketing strategy has helped to achieve the overall marketing goals of the organization. Engage focusses on the achievement of customer retention, customer loyalty and customer increase goals and improved to ensure successful results of digital marketing strategy (Chaffey and Bosomworth, 2013, p. 14).

The 7 steps of digital marketing strategy creation (Chaffey and Bosomworth, 2014, p. 2) are: 1) Defining your approach to digital marketing strategy 2) Understanding your ecosystems 3) Defining your future 4) Targeting 5)Positioning 6) Getting new customers 7) Keeping customers engaged and loyal. These steps focus on the internal digital marketing attitude of a company as well as the external digital marketing attitude of the industry in which the company operates (Smith, 2014, p. 5). However, the steps mainly focus on the understanding from a company of its own digital marketing strategy development and its own goals for its digital marketing strategy (Chaffey and Bosomworth, 2014, p. 2). In order to understand in what way a company will benefit from a digital marketing strategy, the company must understand in which direction it is headed, which market segment it wishes to target, how it will position itself digitally, how it will obtain new customers and retain current customers in such a competitive digital marketing environment. The 7 steps to digital marketing strategy creation will ensure an effective and realistic digital marketing strategy is created (Smith, 2014, p. 5). Included in the 7 steps is the planning outline "SOSTAC" (Chaffey and Bosom worth, 2014, p. 10). SOSTAC represents "situation analysis, objectives, strategy, tactics, actions and control" (Chaffey and Bosom worth, 2014, p. 10). This framework is used predominantly in the implementation of a digital marketing strategy and is highly useful when creating a digital marketing strategy. When used the 7 steps of digital marketing strategy creation, SOSTAC ensures a digital marketing strategy that is informed and realistic. This means that the digital marketing strategy developed will be practically viable as well as theoretically sound

#### RESEARCH METHODOLOGY

This study employs the literature review method, the purpose of which is finding the digital marketing strategy.

#### **RESULTS AND FINDINGS**

The results and findings of Digital marketing strategy is a channel marketing strategy and should be based on objectives for online contribution of leads and sales for this channel; be consistent with the types of customers that use and can be effectively reached through the channel; support the customer journey as they select and purchase products using this channel in combination with other channels; define a unique, differential proposition for the channel; specify how this proposition is communicated to persuade customers to use online services in conjunction with other channels; manage the online customer lifecycle through the stages of attracting visitors to the website, converting them to customers and retention and growth; be consistent with 1) Utilization from Modern marketing communication 2) Focusing on social media 3) Ability of marketing content creating 4) Applying an influence marketing social media and 5) Online corporate reputation management.

#### **CONCLUSION AND DISCUSSIONS**

Accordingly, the focus of digital marketing strategy is decisions about how to use digital channels to support existing marketing strategies, how to exploit its strengths and manage its weaknesses, and to use it in conjunction with other channels as part of a multichannel marketing strategy.

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# RESEARCH ON FINANCING RESTRICTION FACTORS OF HIGH-TECH START-UP ENTERPRISES

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#### **ABSTRACT**

After the 18th National Congress of the Communist Party of China (CPC), in the era of "mass entrepreneurship and mass innovation", the problem of enterprise financing, especially the problem of high-tech enterprise financing has become the central problem in the financial field. In order to study the financing constraints of high-tech start-ups in China, I will use the fuzzy and comprehensive evaluation method, from banks and other financial institutions, and the high-tech start-up itself to analyze and solve the problem of financing, Help high-tech start-up to solve the financing difficulties, get rid of financing problems, so that enterprises can continue to develop.

**Key words:** High-tech start-up enterprises; Financing; Financing constraints; Fuzzy comprehensive evaluation method

#### INTRODUCTION

#### 1.1 Research Background

Since the reform and opening up in 1978, after decades of changes and development, China's high-tech innovation enterprise has developed quickly. According to relevant reports, at the end of 2006, China's high-tech start-ups created 75% of urban employment opportunities increasing China's GDP from less than 1% to 43%, which contributed to China's GDP growth greatly and has become the main body of high-tech industry, but it also restricts the development of high-tech start-ups. The most prominent problem is always facing the problem of financing difficulties, which makes the development of enterprises limited, making them in an awkward position of "strong position and weak position". First of all, Enterprises need to solve the big problem of financing to get their own development. To solve this problem is to enhance the national innovation ability, and the continuous development of economy plays an important role in promoting. Strive to improve the environmental conditions of high-tech start-ups and do a good job in the basic work to provide the necessary guarantee for enterprise financing and actively transfer the corresponding functions of the government. Change makes the government be built into a service-oriented government and adapt to the new era of rapid economic development. The development of high-tech start-up enterprises is not only the mainstream hotspot in the world, but also the current strategy of sustainable economic growth in China.

This strategy has brought great difference to the continuous and stable development of national economy. The general function is to increase the national tax revenue, absorb the employment population, increase the social wealth and activate the market economy and so on.

#### 1.2 Problem Statement

Because the problem of enterprise financing, especially the problem of high-tech enterprise financing has become the central problem in the financial field, the author tries to find out what affect high-tech enterprise financing, why the research is studied and who is interviewed in the study.

#### 1.3 Research Question

- 1. How many factors influence high-tech financing? And what are they?
- 2. How do we can solve the problem of high-tech financing?

# 1.4 Research Objectives

We first analyze the financing constraints of high-tech start-ups, and then take targeted measures, so as to alleviate or solve the financing problems, enterprises can develop more orderly.

# 1.5 Scope

To find out the importance of each factor, this paper surveyed 100 people, including graduate students, leaders of high-tech start-ups, school teachers and people involved in finance.

#### 1.6 Significance of Research

Although the research results on financing of high-tech start-ups have appeared in large numbers, financing constraints have always been a major problem hindering the development of high-tech start-ups. In particular, the restrictive factors of high-tech start-ups are relatively lack of systematic understanding. Compared with other enterprises' contribution to economic growth, China's financial support for high-tech start-ups' financing is still very inadequate, not meeting the high-tech enterprise development process in the increasingly diversified financing needs. At present, China is promoting "mass entrepreneurship, mass innovation". There is no denying that high-tech start-up enterprises will play an important role in this process. At the same time, in order to increase national tax revenue for society, innovation society, absorbing the employment population as well as activate the market and so on many aspects also have the very vital significance. At this stage, the scale of financing of Chinese start-up enterprises is completely out of line with its contribution to the economy. Therefore, we should make a deep research on the financing restriction of high-tech start-ups, and then provide conditions for solving the financing difficulty of high-tech start-ups.

# 1.7 Definition of Keywords

A high-tech start-up is a kind of high-tech enterprise which has been established for a short time and is in the primary stage. The research and development, production and service of high-tech products are its main jobs, it is highly knowledge-intensive, pursuing high value-added services and products and accompanied by high capital absorption enterprises. Such firms are often divided into technology firms in the general sense and knowledge-intensive firms that are customer-centric and develop supply chain management.

#### **STATUS**

# 2.1 High-tech start-ups face the problem of single financing channel, which makes it more difficult for them to raise funds.

Statistics show that nearly thirty-six per cent of China's high-tech start-ups lack the funds to meet their own development, There is no stable financing channels. Of these, only about 3 percent of companies feel that their current financing methods can basically meet the needs of development. At the same time, the bank's indirect financing in China's high-tech start-ups accounted for a relatively large proportion, about ninety-nine per cent, while direct financing accounted for only about 1 per cent.

# 2.2 The financing market is not enough to meet the actual needs of many high-tech start-ups.

After a period of development, the financial market has formed a special securities trading board to Finance high-tech start-ups. This shows that financial institutions have opened a special window for high-tech start-ups, to help them better carry out the corresponding financing work, so that it has a certain power of equity financing. However, the situation is still very complicated. The requirement of equity financing for high-tech start-ups is very strict. Only a few and fast-growing enterprises can meet such financing conditions. This means that this financing is far from enough, not enough to meet the needs of enterprises; it is difficult to form a major support for high-tech start-ups.

#### 2.3 Lack of credit consciousness

Credit construction has not been strengthened in the management of high-tech start-up enterprises, and the value and significance of credit construction have not been more mature. Therefore, there is a phenomenon of ignoring credit construction in the process of operation and management. Some enterprises even take credit as a price in order to seek benefits. There is no sound management system in the financial management link, and then tax evasion, or even directly avoid debt, so that the credit cliff-like decline.

In the case of high-tech start-ups, government investment is insufficient, so most enterprises cannot rely on government financing Financial policies and government financial support is insufficient, and for industries that wish to develop rapidly, the government will give a lot of funds to support, however, our government's financial, fiscal policy is mainly based on the size of enterprises and the type of ownership to make, a lot of support policy favoring large enterprises. Therefore, China's high-tech venture capital financing lack adequate policy support in the development of technology and financial support.

# FINANCING CHANNELS AND PREDICAMENT OF HIGH-TECH START-UPS

# 3.1 Financing approaches for high-tech start-ups

The financing of high-tech start-ups can be either endogenous or exogenous. Among them, endogenous financing is the process of transforming one's own money into investment, which is characterized by low financing cost and strong autonomy. And the external financing is the enterprise or the owner of other enterprises or the owner of the money saved into their own investment process. Among them, equity, bond financing and bank loans are external financing.

# 3.2 Reasons for the high-tech start-up's financing predicament

There are many factors that lead to the high-tech start-up's financing predicament, which are mainly manifested in the following three aspects:

# 3.3 Relatively large fund demand

According to the research, the amount of Fund for Development: The amount of Fund for Research: The ratio of the amount of fund for commercialization is 1:1:10. It is estimated that China's high-tech start-ups need more than four hundred billion per year for development, and the demand for funds is huge. However, at this stage, the monetary policy issued by the state continues to tighten, while inflationary pressure continues to rise, coupled with the fact that China's financing system has long been led by the government and indirectly financed through banks and other financial institutions as intermediaries, and long affected in this way, loans from banks and other financial institutions are heavily skewed towards large state owned enterprises and government related projects, with direct financing

by enterprises accounting for a small proportion, according to figures from 2011, in the same period, stock financing and bond financing only accounted for 14% of the total amount of financing, the amount of financing is far from meeting the financing needs of high-tech start-ups, resulting in high-tech start-ups financing difficulties.

# 3.4 Relatively high risk

Due to the imperfect management mechanism, research and development mechanism and management concept of high-tech start-up enterprises, there are still some problems, which to a certain extent reduce the ability of enterprises to resist risks, reducing the survival rate of the enterprise. However, banks also seek to maximize their own interests. The low survival rate of enterprises causes the enterprises' credit rating to be lowered in the major banks. When the enterprises become insolvent, the default rate will be higher, thus increasing the risk of loans by banks and other financial institutions, so that banks and other financial institutions are not willing to lend to enterprises, resulting in high-tech start-up financing difficulties.

# 3.5 Insufficient level of innovation

High-tech start-ups are based on technological innovation and need to continuously enhance innovation to adapt to new markets. For high-tech start-up enterprises, it is very important to have a certain number of high-quality and high-tech talents. However, due to the lack of funds, enterprises cannot afford the high cost of employing core technical professionals in many projects, which makes it difficult to upgrade technology and products and enhance market potential, making enterprises easy to be eliminated by the market, this making the survival rate of enterprises low, and then the loan risk of financial institutions increasing, banks and other financial institutions in order to ensure their own interests to maximize, reluctant to lend to enterprises, and then the phenomenon of corporate financing difficulties come about.

The above three points are from the characteristics of high-tech start-up enterprises, the enterprise into the financing difficulties for the reasons for analysis. In order to effectively solve the problem of financing difficulties and promote the healthy development of high-tech start-ups, the author will conduct a questionnaire survey and use the method of fuzzy and comprehensive evaluation, exploring the several major factors of the constraints of high-tech start-up financing difficulties.

# METHODOLOGY AND MODEL CONSTRUCTION

# 4.1 Theoretical basis of Fuzzy Comprehension Evaluation Method 4.1.1 Characteristics of Fuzzy Comprehension Evaluation Method

Ambiguity is interpreted as the uncertainty of things. Fuzzy Comprehension Evaluation Method, which is a form of Fuzzy and comprehensive evaluation, was put forward by American professor L. A. Zadeh, based on the mold and mold system as a method of evaluation, but also a comprehensive evaluation method. This evaluation method can change qualitative evaluation into quantitative evaluation, but it must be based on the theory of membership degree, in short, is affected by complex factors, can be used in the overall evaluation of the module and mathematics, the results are vector, it's not a point. Usually, when the information is not enough, it is difficult to measure, it can be divided into several parts, and then the smallest part can evaluate the importance of the evaluation method can be used. The results are straightforward and can solve the problem of uncertainty.

# **4.1.2** Principles of Fuzzy Comprehension Evaluation Method

When we come across something that is uncertain or difficult to measure, we can break it up into parts, and then break those parts down into smaller parts until we can no longer do so, the principle of the subjective authorization method is to determine the weight of the smallest part, so that the degree of importance of the difficult thing can be evaluated. For example, a student's overall quality cannot be directly considered, there is uncertainty, we will break it down into a number of small parts, such as students' learning ability, students' psychological capacity and students' social ability, three parts. The social ability of students can be further divided into three parts: the ability to communicate with family, the ability to communicate with teachers and the ability to communicate with classmates. And so on, and then each kind of subdivision of the student's ability to be tested and weighted, and finally can infer the quality of the student.

# 4.2 The model of financing restriction factors of hi-tech start-ups based on the integrated method

First, we establish a set of factors that affect the evaluation object, which is denoted by the symbol U. U1, U2, U3... UN will be used here to denote the set of financing constraints for high tech startups. Among them, the problems of enterprises are expressed by U 1, the difficulties of bank loans are expressed by u 2, the lack of financing guarantee platform is expressed by U 3, the threshold of securities market is expressed by U 4, the bad macro financial environment is expressed by u 5, and the narrow financing channels are expressed by U 6, u 7 for lack of government support.

Secondly, the evaluation set of the evaluation object (the evaluator of the evaluation object of all the possible set of results, with the Symbol v). In this paper, we use VV1, V2, V3, ... Vn to evaluate the financing constraints of high-tech start-ups. Of these, very important, important, generally important, and not important are represented by V1, V2, V3, and V4, respectively.

Finally, the weight vector of evaluation factors is established, which is represented by symbol A according to the different importance of each factor. Since the results of the comprehensive evaluation are inseparably related to the importance of each factor, it is necessary to determine the importance of each factor. So let a 1, a 2, a 3, a 4, where I is the importance of the first factor, must meet 0=a1,  $\Sigma$ a1=1. By reading the literature and my own summary, this paper statistics the financing constraints of high-tech start-ups have u 1 to u 7, a total of seven constraints. Among the seven constraints, some factors are relatively important relative to other factors, and some factors are equally important. According to the experience of predecessors, this weight is more suitable to be distributed by ranking method, that's A={0.45, 0.35,

0.15, 0.05}

3.3 The establishment of an integrated judgment Matrix

Start with a separate evaluation of one factor. Ri1 (the degree to which the factor set i is subordinate to the first element of the evaluation set), whose set is denoted by the symbols Ri={ ri1, ri2, ...rim}. By quantifying each factor in the same way, the Matrix of the final comprehensive evaluation can be expressed as R={r11 r12 ... r1n}

To find out the importance of each factor, this paper surveyed 100 people, including graduate students, leaders of high-tech start-ups, school teachers and people involved in finance. According to the statistics, the ratio of the market survey of high-tech start-ups' own problems is:  $R1=\{0.42, 0.28, 0.2, 0.1\}$ , the group said: forty-two per cent of the

respondents said that U1 -- "high tech startups themselves" were important, and twenty-eight per cent said that they thought it was important, general importance accounted for 20 percent of the survey reports, while only 10 percent considered it unimportant. The percentage of seven market surveys in U2 -- "Bank loans are difficult" was: R2={0.3, 0.3, 0.3, 0.1}; The proportion of "Unsound Financing Guarantee Platform" is R3={0.2, 0.2, 0.1, 0.5}; the proportion of "High Securities Market Threshold" is R4={0.3, 0.4, 0.2, 0.1}; The proportion of "poor economic environment" market survey is R5={0.2, 0.2, 0.2, 0.4}; the proportion of "narrow financing channel" market survey is R6={0.41, 0.25, 0.19, 0.15}; The percentage of "unsupported by government" market surveys was: R7={0.3, 0.2, 0.3, 0.2}. See the table below:

```
Table 1
```

Membership (UI, VN)

 $v1 \ (very \ important) \quad v2 \ (important) \quad v3 \ (generally \ important) \quad v4 \ (not \ important)$ 

u1 0.42 0.28 0.2 0.1 u2 0.3 0.3 0.3 0.1 u3 0.2 0.2 0.1 0.5 u4 0.3 0.4 0.2 0.1 u5 0.2 0.2 0.2 0.4 u6 0.41 0.25 0.19 0.15

-7 0 2 0 2 0 2 0 2

u7 0.3 0.2 0.3 0.2

From the above table we can construct a single factor Matrix R:

R={0.42 0.3 0.2 0.3 0.2 0.41 0.3} {0.28 0.3 0.2 0.4 0.2 0.25 0.2} {0.2 0.3 0.1 0.2 0.2 0.19 0.3} {0.1 0.1 0.5 0.1 0.4 0.15 0.2}

Then from the Formula: B=A\*R (weight vector \* Single Factor Matrix), the comprehensive evaluation results can be obtained. The result can be expressed as:  $B=\{b1, b1\}$ 

b2, ..., bm}. Then the Matrix is synthesized

```
B=A*R={0.45 0.35 0.15 0.05}*{0.42 0.3 0.2 0.3 0.2 0.41 0.3}

{0.28 0.3 0.2 0.4 0.2 0.25 0.2}

{0.2 0.3 0.1 0.2 0.2 0.19 0.3}

{0.1 0.1 0.5 0.1 0.4 0.15 0.2}

={0.322 0.29 0.2 0.31 0.21 0.308 0.26}
```

Finally, the above answers are consistent:  $B=\{0.169\ 0.153\ 0.105\ 0.163\ 0.111\ 0.162\ 0.137\}$ 

From the results obtained, it follows that:

u1-the problems of high tech START UPS and u4- the high threshold of the securities market are relatively large, then the number of U6 -- a narrow funding channel -- is in the third place, and finally the number of u2 difficult bank loans is in the fourth place, therefore, the relative evaluation of these four values is relatively high, while the other values are relatively small, so the relative comprehensive evaluation is low.

4. The conclusion and policy suggestion of financing restriction factors of high-tech start-up enterprises

#### CONCLUSION

According to the fuzzy comprehensive evaluation method, we can clearly see that the securities market has a high threshold and a narrow financing channel, the problems of high-tech start-ups and the difficulty of bank loan are the four main restrictive factors.

# **5.1 Suggestions**

first of all, that with regard to the high threshold of the securities market, the state should actively establish a diversified, multi-system and highly developed capital market, and introduce corresponding supportive policies, reform bond regulation to reduce institutional constraints and give companies some room to help high-tech start-ups raise capital.

Second, for the problem of narrow financing channels, first, the state-owned banks should be increased reform efforts to reduce lending to state-owned enterprises and the preference of larger enterprises. When a bank makes a loan, it should consider whether to lend to an enterprise on the basis of the development and profitability of the enterprise, rather than on the basis of the size and size of the enterprise, innovative financing channels and new types of loans to make it as close as possible to the financing requirements of high-tech startups.

Then, for the problems of high-tech start-ups themselves, we should strengthen the management of their own enterprises, establish and improve a scientific management system, constantly innovate new products, enhance market potential, and strengthen the sense of credit, to improve the authenticity and transparency of financial information, we should regard honesty as the tenet of the enterprise and improve our credit rating to create conditions for our own financing. At the same time, we should employ high-quality talents; we will establish a guarantee mechanism for high-tech start-up enterprises, enhance their own guarantee ability, and fully value and recognize the role of the guarantee system in enterprises.

Finally, for the difficulty of bank loans, the most important thing is to improve the credit system of enterprises, which is conducive to solving the cost increase caused by Information asymmetry in the loan process, it would also make it easier for banks to learn more quickly about a company's creditworthiness and ability to repay a loan, reducing some of the red tape and procedures, and improving the efficiency of financing, thereby reducing some of the difficulties of making a loan.

#### **5.2 Summary**

In a word, it is a complex and difficult thing to solve the problem of financing difficulty for high-tech start-ups. In order to solve this problem, we should first analyze the financing constraints of high-tech start-ups, and then take targeted measures, so as to alleviate or solve the financing problems, enterprises can develop more orderly.

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# MEASUREMENT: INTENTION TO CONSUME LOCALFOOD FOR TOURISM

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#### **ABSTRACT**

Thailand has a diversity of local foods which benefit Thai tourism industry. Activities respecting the local foods managed by the locals allow people to travel regardless of seasons. Memorable experiences and cultural learning through foods can establish positive attitudes towards Thai tourism, which creates word of mouth and service repetition. The objectives of this research were to investigate the development of a measure on local food consumption for tourism. The review of the literature revealed that the measure consisted of Management Innovation, Food Image, Food Quality, and Attitude of Customer. The investigation of suitable measurement for studying structural components to further develop a simulation of the intention of local food consumption for tourism is to improve quality of local foods and make them as major products for leading Thai domestic tourism. This can be done by creating an identity from local food images since the foods are relatively close to local environment and culture.

The findings from the review of the literature manifested that innovation management was a possible factor for measuring and responding to the needs of local food consumption among tourists. The innovation management is composed of product innovation, process innovation, and service innovation. These components can be used to develop products relevant to local foods through a production process stemming from creativity in making local food products varied, distinctive, and unique. The products are then delivered through convenient, fast, and timely services. This also stimulates creative competitions which can leverage communal economics and generate sustainable profits.

**Key-words** Management Innovation, local food of Image, satisfaction of tourist

#### INTRODUCTION

Food is one of the primary four factors in human's life. The globalization has influenced the way people consume foods. The food consumption is beyond hunger alleviation due to experiences received in every meal (Ellis et al., 2018). This can start from the agricultural process in producing ingredients for complex cooking methods to the food production resulting in various tastes. This also involves a consumption moment which has been associated with human's habitation for over centuries. In other words, a kind of food, such as Padthai, sushi, or a roti, can reflect local wisdom and ways of life, which represents a food identity of that particular nation (Chayanin Wangsai, 2017, p. 61).

National Economic and Social Development Plan Act 12 (2017-2021) which aims to elevate a quality of Thai economic competition through the structural alteration of Smart Farming agricultural production and to promote Creative Economy under development

guideline of Thailand 4.0 mentioning Food Tourism principally focuses on Authentic local food experience and the promotion of environmentally friendly food tourism (National Economic and Social Development Board, 2018) which is consistent to the report of Tourism Authority of Thailand (2017) states that "Food Tourism will be important to the sustainable development of the economy at local, regional, national, and international levels. Moreover, tasting local foods during traveling becomes increasingly important among tourists. Oftentimes, they search for foods representing local identity which generate novel experience and cannot be found in their home country (Tourism Authority of Thailand, 2017). This can increase value of tourism product by using different images and identities of Thai ways. The regional tourism emerges from the governmental policy in promoting tourism by using foods as a major component with revenues from tourists spending on foods, which is the one-third of the total traveling expenses. The investigation illustrated that tourists reported an increase of their preference on local foods. This data is important to developing the images of local foods to respond to the needs of specific tourist groups in order to generate memorable experiences, cultural learning through foods, word of mouth, and service repetition. This also sustainably generates revenues to communities. Despite the high annual touristy revenue, the revenue proportion for local communities remain scarce since the tourism development, such as accommodations, restaurants and souvenir shops, is mainly managed by private investors. People from different regions move in for work and serve the increase of tourists. The locals change their professions to business employees. Provincial economy is swiftly expanded. Ownership of agricultural areas is changed. Local wisdoms and traditions are abandoned. Moreover, the images of Thai local foods remain ambiguous and unable to indicate the difference or similarity of each region as well as the authenticity of the origin.

From the discussion, the researchers aim to examine the development of a measure on intention of local food consumption of tourists. This is considered as an important process of the future investigation because the measure which is accurate and suitable for factors will influence the development of local food images for tourism and facilitate the analysis. The measure can also be used to designate policies of local food promotion as primary products of Thai tourism. This is because images of local foods are primary components in producing brands and elevating local economy. The association between foods and local environment and culture and Thailand has a diversity of local foods which are beneficial to tourism can increase revenue and render opportunities for communities to do more business. The activities about local foods managed by the locals will directly affect the community who owns the destination. The particular community will receive a full revenue and realize the value of local foods, which results in the conservation and the constant and sustainable development.

#### **OBJECTIVES**

To build a measure of intentions of local food consumption for tourism

# LITERATURE REVIEW

The review of the related literature on factors influencing intention of local food consumption of tourists can be summarized as follows.

# The innovative management factor

The innovative management factors influencing opportunities of competition and sustainability (Laužikas et al., 2016) consist of product innovation, process innovation, and service innovation. Since major economic innovations of restaurants are service and

process innovations followed by product innovation which is unrelated to technology innovation, Walailuck Rattanawong, Nutthida Suwanno, and Theerasak Chindabot. (2014). argue that the suitable components in measuring service innovation are product innovation and process innovation together with product innovation indexes, which are 1. the presentation of new product and service, 2. the improvement of new product and service, and 3. the creation of a diversity of product and service. The componential indexes of service innovation consist of 1. New practices to support product and service and 2. The improvement of process/procedure. Vanhonacker et al., (2013) studied the original innovation of food: the influence on perception towards original characteristics and consumer's acceptance and found that the results of 23 innovations were divided into 6 categories: 1. Quality and/or nutritional innovations, 2. Convenience innovations. 3. Marketing efforts, 4. Assortment expansion, 5. Market innovations, and 6. Packaging innovations. Dilupa Nakandala and H.C.W.Lau, (2018) examined demand and supply related to strategic supply of urban fresh food chain and discovered that demand and supply of FFSCs in urban areas are part of functional products and innovations. Consumers paid attention on health and a creation of sustainability of ecosystem. Quality and freshness of foods were more important than price of the product among the consumers. Moreover, the increase of convenience the consumers received was indicated in the results. The strong creation of customer based through online portal was also highlighted. Customers are inclined to recommend such products and services to others. Companies should consider using strategies of product improvement from innovations by presenting new products and menus as well as delivering product and service conveniently, swiftly, and timely.

#### Food quality factor

Seongseop (Sam) Kim, Frank Badu-Baiden and Munhyang (Moon) Oh, 2019 discovered that five factors influencing experiences in consuming local food in Ghana: 1. Experiencing authentic food, 2. Socialization and boasting, 3. Experiencing a high-quality local restaurant, 4. Leatning local food culture, and 5. Experiencing various menus and quality of food. Similarly, Ali et al. (2019) found that food quality, perception towards environmental quality, perceived value, and service quality had a significant influence on tourist's satisfaction towards Pakistani local food selection. Fam et al. (2019), moreover, manifested that convenience factors positively affected intention of local food consumption in Sabah, Tahau-Kadazandusan, in every group of tourists. Price factor positively impacted the intention of Chinese and European tourists. Emotion factor positively influenced the intention of European and Malaysian tourists whereas similarity and perceptive characteristic factors positively affected the intention of Chinese tourists. Zhang et al. (2018) examined reasons in consuming local foods among domestic tourists. The results showed that attitudes, norm reference, and behavioral perception had a positive impact on the intention of local food consumption. Seo and Yun (2015) also revealed that a measure examining knowledge of Korean food images consisted of five factors: food safety and quality, attractiveness of food, health benefits of food, food culture, and unique culinary arts. Furthermore, a measure investigating perceptions towards Korean food images contained three factors: pleasant, enjoyable, and contented.

# Food image factor

Promsivapallop and Kannaovakun (2019) discovered a difference between perceptions towards destination foods and such factors positively influenced the selection and the consumption. These results are in line with a study of Zain, Zahari, and Hanafiah (2018) that food images and local food consumption had a positive effect on destination images of Sabah. The local food consumption was also related to Sabahian food images and

Sabahian destination images. Moreover, components influencing tourist's royalty are uniqueness, creativity, and nutritional value (Pimravee Rodroongsad, 2018). The perceptions towards street food, on the other hand, indirectly impacted an intention of the destination revisitation through norm reference while factors influencing street food images have a direct effect on attitudes towards the destination and norm reference

#### **Attitudes of tourists factor**

The tourist's attitudes towards local foods are positively influenced by taste/quality value, nutrition value, price value, emotion value, and pride value (Rousta and Jamshidi, 2020). The destination food images are positively impacted by tourist's attitudes towards local foods. The tourist's intention of visiting places for food tourism is positively affected by the attitude towards local foods whereas the tourist's intention of local food recommendation is positively influenced by destination food images (Pitchanun Chongrak, and Charoenchai Eakmapaisan, 2018). The attitudes towards tourist destination and norm reference have a direct impact on the intention of a destination revisitation. These results are congruent with Constanza Bianchi and Gary Mortimer (2015) that the attitudes towards local food consumption were strong influencers and directly affected local food purchase in two countries, attitudes towards local agricultural business support, and ethnic preference. Such factors were also found to have a positive impact on food consumption in both countries. The attitudes towards local agricultural business also directly influenced local food purchase intentions in Australia, but in Chile. Attitudes acted as a mediator of the relationship between mood, familiarity, sensory appeal, and price and purchase intention (Muhammad Shakil Ahmad et al., 2019). Moreover, experiences of originally local food were important to tourists and pride concerned food consumption experiences. The local food consumption at a destination is a way to escape from daily routine and receive knowledge about local cultures. The sensitive attraction can induce Chinese tourists consume local food. The analytic results revealed that the intention of hong kong local food consumption among chinese tourists depended on excitement, pride, daily work escape, knowledge obtainment, and sensitive perceptions (Suntikul et al., 2019). These results are consistent to Ting et al. (2019) that the attitudes were associated with Dayak food consumption intention of every tourist group except Chaba. Choe and Kim (2019) also found that values in local food consumption of tourists were 1. taste/quality value, 2. Knowledge value, 3. Emotion value, 4. Interaction value, 5. Health value, 6. Pride and fame value, and 7. Price value. They also found that satisfaction with local food tasting, positive intention after the purchase, and image creation were different among tourists. Pride value negatively impacted the satisfaction of local food tasting while emotion, health, pride, taste/quality, and interaction values and positive intention after the purchase were culturally varied.

Table 1 illustrates the results of reviewing related literature on measures examining tourist's intention of local food consumption

**Table 1:** The summary of reviewing related literature on measures examining tourist's intention of local food consumption

intention of local food consumption																
<b>Latent Constructs</b>	1 .	Ma	2. food Image				3 . Quality of				4. Attitude					
	Innovation								food							
Manifest Variables																
1					ty	cy										
					ersi	ura	ort	J			y					
	uc	uc	nc	ure	Jiv(	ıccı	Ju	tioı			alit					
Researchers	atic	atic	atic	ult	) pt	nd 8	00	nsa			gub		e			
	Product innovation	Process innovation	Service innovation	Unique food culture	Differences and diversity	Uniqueness and accuracy	Approach and comfort	Senses and sensation	ety		Raw material quality		Pride and fame			
	i.	ini	in	foc	ıce	nes	ch a	and	safe	u	ıter	U	J pu	ion		
	uct	ess	ice	ne	erei	iaei	roa	es s	Health safety	Nutrition	me	Emotion	ar	Interaction	S	
	rod	roc	erv	nic	iffe	nic	ıdd	ens	eal	utr	aw	mo	ride	ıter	Prices	
				n	D	U	A	Š	Н	Z	R	E	Ъ	Ir	Ь	
Laužikas et al.			$\sqrt{}$													
(2016)	,	,	1													
Walailuck	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$													
Rattanawong, Nutthida Suwanno,																
Nutthida Suwanno, and Theerasak																
Chindabot. (2014).																
Vanhonacker et al.	<b>V</b>		V													
(2013)	'	•	•													
Dilupa Nakandala	V	V	V													
and H.C.W.Lau	, I	,	,													
(2018)																
Kim et al. (2020)									$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
Ali et al. (2019)									$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
Fam et al. (2019)							$\sqrt{}$					$\sqrt{}$			$\sqrt{}$	
Choe and Kim (2019)									$\sqrt{}$	√		$\sqrt{}$	√ <u></u>	V	<b>√</b>	
Zhang et al. (2018)					,	,	,		,	,	,	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	
Seo and Yun (2015)				V	V	V	<b>√</b>	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	V				
Promsivapallop and							$\sqrt{}$									
Kannaovakun (2019)				.1	-1	.1	.1									
Zain, Zahari, and Hanafiah (2018)				1	V	V	$\sqrt{}$									
Pimravee				1	1		1			$\sqrt{}$					$\sqrt{}$	
Rodroongsad. (2018)				٧	V	٧	V			٧					٧	
Pitchanun Chongrak,				1	V											
and Charoenchai				'	,	'	'									
Eakmapaisan. (2018)																
Rousta and Jamshidi								$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				$\sqrt{}$	
(2020)										·						
Muhammad Shakil								$\sqrt{}$				$\sqrt{}$			$\sqrt{}$	
Ahmad et al. (2019)																
Suntikul et al., (2019)												$\sqrt{}$	$\sqrt{}$		$\sqrt{}$	

#### METHODOLOGY

This research in this time is the documentary research by Secondary data from document from document and research related to study, analysis, and data synthesis to get the components and measure of intentions of local food consumption for tourism

#### **RESULTS**

Research result found that measure of intentions of local food consumption for tourism composed 4 structures such as 1. management innovation 2. food Image 3. quality of food and 4. attitude as follow:

- Management Innovation composed 3 indicators are product innovation, process innovation and service innovation.
- Food Image: indicator is parameters of food image are unique food culture, differences and diversity, uniqueness and accuracy, and approach and comfort.
- Quality of food: indicator is parameters of Quality of food are senses and sensation, health safety, nutrition, and raw material quality.
- Attitude: indicator is parameters of attitude are emotion, pride and fame, interaction, and prices.

# **CONCLUSION AND DISCUSSIONS**

Research result of the measure of intentions of local food consumption for tourism was 4 structures such as 1. management Innovation, food Image, quality of food, and attitude, 16 indicators and 48 measurer accordance with research of Laužikas et al., (2016): Walailuck Rattanawong, Nutthida Suwanno, and Theerasak Chindabot. (2014): Vanhonacker et al., (2013): Dilupa Nakandala and H.C.W.Lau, (2018): Seongseop (Sam) Kim, Frank Badu-Baiden and Munhyang (Moon) Oh, (2019): Ali et al., (2019): Fam et al., (2019): Zhang et al., (2018): Seo and Yun (2015): Promsivapallop and Kannaovakun (2019): Zain, Zahari, and Hanafiah (2018): Pimravee Rodroongsad (2018): Pitchanun Chongrak, and Charoenchai Eakmapaisan. (2018): Rousta and Jamshidi (2020): Muhammad Shakil Ahmad et al., (2019): Suntikul et al., (2019) and Rousta and Jamshidi (2020). (Ting et al. 2019)

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# ANALYSIS OF INDOOR ENVIRONMENT MONITORING SYSTEM BASED ON ARDUINO

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# **ABSTRACT**

With the rapid development of global economy, the requirement for life quality of people is increasingly improved; moreover, people gradually attach importance to the living environment. Meanwhile, the fields of electronics, computers and so on have developed to an unimaginable high stage, which provide strong technical support for the intellectualization of living environment. People become more and more concern about the indoor environment because of the increasing worse outdoor environment. Hence, it is an essential issue of smart home system about how to make indoor environment getting more comfortable, healthier and safer.

The main work of this paper is to design a set of detection system for housing environment, where data interaction between a specific computer and housing environment detection system can be done through wireless transmission mode, which would monitor the indoor temperature, humidity, smoke concentration and other data. This system mainly achieves four functions: collecting varies data from housing environment by using different detectors, and transmits the collected data to master controller through RS-485 circuit; the master controller then transmits the environment data to PC upper computer; upper computer would real-time display the relevant data of housing environment and achieves human-computer interaction; the PC would regulate and control indoor environment by controlling the air conditioner, humidifier, alarm according to feedbacks from detection.

After testing and practical application, this system works well and basically achieves requirements of all functions, which consists with design criterion.

Key words: Environment, RS-485; Arduino, Wireless Transmission.

# INTRODUCTION

In recent decades, electronic information science, computer, communication, Internet and other industries are also developing rapidly. The rapid development of IC (Integrated Circuit) design technology has greatly improved the number of IC gates, processing capabilities and cost performance; the rapid development of software technology has made the chip and computer hardware more intelligent; various communication methods have accelerated from analog communication Turning to digital communication, from low speed and low efficiency to high speed and high efficiency, from a single communication method to a combination of multiple methods, ZigBee, Bluetooth 4.0. WIFI and other technologies continue to innovate. After the introduction of 4G mobile communication, they are also launching 5G communication technology; hardware, The mutual integration and penetration of technologies in software, communications, the Internet and other aspects are constantly promoting the development of our application technology. The application of various technologies has penetrated into all corners of people's lives.

The production of any thing occurs under sufficient and necessary conditions. The rapid development of the economy and the continuous improvement of people's requirements for material life provide the necessary conditions for the production of intelligent living environments. At the same time, the rapid development of the electronics and communications industry also provides sufficient conditions for their production. Indoor environmental monitoring was born under such conditions.

At the same time as China's economy is developing rapidly, large amounts of high-polluting energy sources are emitted, causing many environmental problems. Urban air pollution is particularly serious, and the harm to human health cannot be underestimated. For this purpose, the State promulgated the "Indoor Air Quality Standard" GB/T18883-2002, which stipulates that indoor air quality indicators include parameters such as temperature, relative humidity, carbon monoxide, carbon dioxide, formaldehyde, benzene, and respirable particulate matter. Many experiments at home and abroad have confirmed that indoor air pollution will bring various diseases, including facial discomfort, headache, dizziness, drowsiness, and difficulty concentrating. These will have a major impact on people's normal living habits and work. According to the national standard, developing an air quality monitoring system, completing real-time monitoring of indoor air quality, and reporting air pollution information in a timely manner is an effective way to protect human health.

#### LITERATURE REVIEW

# 2. 1Wireless Communication Technology

Wireless communication technology (Wireless Communication) utilizes the characteristics that electromagnetic wave signals can freely propagate in an interference-free environment and then exchanges information.

Wireless communication transmission methods can be divided into microwave communication and satellite communication. The transmission distance of microwave communication is not particularly long, so a base station (relay station) must be established for communication almost every tens of thousands of meters. For example, domestic telephone Internet service belongs to this type. Satellite communication uses satellites as base stations for two ground targets. Establish communication links between targets. In terms of distance, there are Bluetooth, RFID, Wi-Fi, Zig-Bee, NFC, etc.

# RESEARCH METHODOLOGY

# 3.1 Research Design

In this chapter, we first describe the functions that the system needs to implement according to the design requirements, and then divide the concept into several points and explain the design principle in detail. The overall system framework is divided into four parts, namely temperature acquisition circuit and humidity acquisition. The circuit, smoke collection circuit, and the final design illustrate the hardware part of the system.

# RESULTS AND FINDINGS

Serial port debugging is equivalent to the role of our oscilloscope in a large part of cases, and is the second eye of electronic engineers. Through the serial port assistant, we can know the status of data transmission in the program, can easily observe each frame of data,

and can judge whether the data has packet loss. Through the serial port assistant, we can observe and debug the running status of almost all MCUs with serial ports. In this paper, the serial assistant is used to debug the operation of the wireless transceiver.

# **4.1 Measurement Model Assessment:**

The realization of hardware only gives the whole system a body, while the realization of software can make the system have life and realize various functions. The main content of this chapter is to introduce and analyze the software of the lower computer corresponding to the hardware system and the upper computer corresponding to the PC. The lower computer is divided into acquisition module and main control module according to function. The collection module mainly realizes the collection, display and transmission of indoor temperature, humidity, smoke concentration and other environmental variables to the main control module. The main control module analyzes the parameters transmitted by the acquisition module, and transmits them to the upper computer through the wireless module. At the same time, it receives the commands transmitted by the upper computer and regulates the indoor environmental parameters. The upper computer is mainly used as a terminal to display indoor environmental parameters, and to set the indoor environmental parameter control range through a human-computer interaction interface.

#### CONCLUSION AND DISCUSSIONS

This paper requires the design of a family intelligent environmental monitoring system, which requires real-time detection of indoor temperature, humidity, smoke concentration and other environmental parameters, and the ability to set a safe range through the host computer interactive interface, when the parameters in the environment exceed the set value range, The system can respond and control or alarm.

According to the requirements of the original design of the thesis, the three main functions have been basically completed. It can well detect indoor environmental parameters, provide human-computer interaction interface to set safety range, and control indoor environmental parameters. Due to the initial design of the entire system, the cost has not been well controlled, resulting in a relatively high cost price of the system, and some functions are not perfect, so the entire system has not been applied, only for subsequent design and DIY Learn from.

This paper designs three different types of sensor networks, breaking the traditional way of multiple single sensor networks. Various types of sensor networking are more effective in monitoring various parameters of the system, and are of great significance for the comprehensive analysis of the system. At the same time, the paper also proposes to integrate the electrical system and security system in the smart home.

The system designed in this thesis is based on the RS-485 networking system, which is very meaningful for some multi-node applications. At the same time, the use of wireless communication between the host controller and the PC is also applied in many occasions. This multi-node method of collecting multiple amounts of information is worth popularizing in the post-W design. Due to the lack of knowledge, limited level, and time constraints of the students in the relevant aspects, there are still many problems or deficiencies in the design process. I hope that all teachers will give valuable suggestions. Although this paper finally basically realized the functions required by the system, there are still many aspects that need to be improved and perfected, mainly in the following aspects:

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# TYPES OF DIGITAL MARKETING TACTICS AFFECTING EXPECTED BENEFITS: A CASE STUDY OF B2C BUSINESSES IN NONTHABURI, THAILAND

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#### **ABSTRACT**

The objective of this survey research was to understand the influence of digital marketing types in relation to expected benefits of B2C Businesses. The hypotheses were based on the different digital marketing tactics affecting different expected benefits of B2C entrepreneurs. Participants in this study were 100 individuals, running B2C Businesses in Nonthaburi, Thailand. Sampling technique used to select samples in this study was convenience sampling. The researcher was approached to gather the completed questionnaire from entrepreneurs. The statistics used were frequency, percentage, mean, standard deviation.

The findings found that the higher use intensity of website marketing leads to more corporate image development, but not to brand awareness creation. Moreover, they found that the higher use intensity of website marketing leads to more brand awareness creation and more corporate image development as well, but lower extent to corporate Image Development. As a result, these results provide support to previous literature regarding the main digital marketing technique most of the B2C businesses use to create brand awareness is social media marketing. These results also sustain earlier literature that social media marketing can improve brand awareness and corporate image.

**Keywords**: Digital Marketing, E-Commerce, Brand Awareness, Corporate Image

#### INTRODUCTION

In simpleminded terms, digital marketing is the promotion of products or brands via one or more forms of electronic media. Digital marketing differs from outdated marketing in that it involves the use of channels and methods that enable an organization to analyze marketing campaigns and understand what is working and what isn't – typically in real time. Digital marketing includes Website Page Marketing, Content Marketing, SEO Marketing, Social Media Marketing, Online PR Marketing, E-mail Marketing, Mobile & Apps Marketing, Online Video and Viral Marketing, etc. (SAS Institute Inc., 2015). Digital Marketing has many benefits such as to generate higher conversion rates, save firm money, to enable real-time customer service, to generate higher revenues, to deliver higher ROI from company's campaigns, and to compete with large corporations (Geogorio, 2015).

Although B2C companies perceive usefulness of digital marketing, they can be unsuccessful due to inappropriate digital marketing strategies with their expectation. Some businesses spend much of their budgets on digital marketing without deliberating the certainly effective strategies. In some case, many entrepreneurs only focus on Website Marketing with the expectation of increasing customers. They sometimes neglect another important type of digital marketing tactics, Social Media Marketing on Smartphone (Palermo,

2014) which can lead their potential customers to have more opportunities to access to the product information because the people, both teenagers and mature persons, extensively Smartphone users, can perceive marketing communications even though when they go outside. On the other hand, many businesses emphasize Social Media Marketing rather than Website and Landing Page Marketing caused by cost-saving issue. Social Media Marketing allows businesses to engage in well-timed and direct end-consumer contact at relatively low cost, but Social Media cannot lead to good corporate creditability. (Kaplan & Haenlein, 2010). However, both types of Digital Marketing Tactics have their own specific advantage. Furthermore, the extant study found that many small businesses are still slow to pick on the trend, Digital Marketing. They think digital marketing is as complicated as it seems (Gregorio, 2015).

The positive effect can occur from digital marketing strategy suitability with the businesses' expected benefits. Meanwhile negative effect can arise from digital marketing strategy impropriety with the businesses' expected benefits. It is important to understand use intensity of different digital marketing strategies that explain the result of specific benefits. This study emphasizes the implications of digital marketing, which is counted as scientific approach to generate beneficial information to guide the potential B2C businesses in how best to set their marketing strategies (Wind & Mahajan, 2001). This study is believed that there is a lack of contribution into digital marketing. Although there are numerous printed materials about Marketing, they cannot be applied directly to Digital Marketing (Fana & Tsai, 2010). Digital Marketing Tactics are relatively new and still evolving (Wind & Mahajan, 2001). Because many successful companies have their own digital marketing strategies depended on their different expectations, the objective of this research was to understand the influence of digital marketing types in relation to expected benefits of B2C Businesses in Nonthaburi. To accomplish this objective, related studies are cautiously reviewed. Hypotheses are designed and tested using the survey data collected in Nonthaburi in 2020Nonthaburi. Research of the possible associations between both types of digital marketing, Website Marketing and Social Media Marketing, and expected benefits will definitely assist to provide the new businesses with useful implications for planning the digital marketing strategies.

Because many successful companies have their own digital marketing strategies depended on their different expectations, the objective of this research was to understand the influence of digital marketing types in relation to expected benefits of B2C Businesses in Nonthaburi. To accomplish this objective, related studies are cautiously reviewed. Hypotheses are designed and tested using the survey data collected in Nonthaburi Thailand in 2020.

The scope of our research has been limited within the boundary at two types of digital marketing tactics (website marketing and social media marketing) concerned for doing businesses in Nonthaburi. The business model that the author has chosen is the B2C business. This has allowed the author to exactly measure the different benefits between website marketing use and social media marketing use, To meet the research purpose, the B2C businesses in various industries are focused as they are the research topic, such as coffee, fashion clothing, soccer clothing, cosmetics, shampoo, chocolate, sports shoes, language academy, music academy, garage, car accessary, magazine, and automobile parts. Since this research is aimed to study two types of digital marketing tactics, other digital marketing tactics are excluded. To further confine this research, the author could have only considered information retrieved from B2C businesses locating in Nonthaburi, apart from other areas.

#### LITERATURE REVIEW

# **2.1 B2C (Business to Customer)**

In 1979 the conception of B2C, or business-to-consumer, was originated by Michael Aldrich, an English innovator, who developed online transactional process allowing customers communicate with businesses (Shelley, 2011). B2C is the form of e-commerce in which businesses trade goods or services to clients. In other words, it is one of classification of electronic commerce, together with B2B business, C2B business and C2C business in a traditional manner, it could relate to personal shopping for any product at home (Garbade, 2011). More newly, the B2C businesses including e-tailing and virtual storefronts, so well known, relates to the online vending of merchandises in which makers or shopkeepers vend their merchandises to clients via the Internet (Sandhusen, 2008).

# 2.2 The importance of Digital Marketing

Entrepreneurs trendily adopt digital marketing to their B2C Businesses. Digital marketing is a marketing developed by utilizing digital technology to communicate with clients. The major purpose is to advertise brands via diverse types of digital media. It is organized by a wide choice of goods, service, and brand marketing strategies, which chiefly utilize the Internet as an essential promotional media, in addition to smartphone and original Television and radio. However, it also extends to non-Internet channels that provide digital media, such as mobile phones (both SMS and MMS), callback and on-hold mobile ring tones, social media marketing, display advertising, e–books, optical disks and games, and any other form of digital media.

Digital Marketing is so extensively that consumers have access to information any time and any place they desire it. Previously, when the messages people got about the products or services came from company and consisted of only what the company wanted them to perceive. Digital Marketing is an ever-growing source of news, entertainment, shopping and social interaction, and consumers are currently disclosed not only to what the company tells about its brand, but what the media, friends, relatives, peers, etc., are telling likewise. And they are quite possible to believe them than the company. People want brands they can trust, companies that know them, communications that are personalized and relevant, and offers responded to their requirements and favorites (Geogorio, 2015). Several industries, especially by the leading companies among each industry, use digital marketing as a channel or tools to promote or market products and services to clients and businesses with a very productive cost from benefit in creating individually tailored approach (Ryan & Jones, 2009). B2C businesses expect many benefits of Digital Marketing Tactic adoption. This research, however, focuses on three concepts relating to those expectations as follows.

# 2.3 Brand Awareness Creation

Many B2C businesses and SMEs use digital marketing to create their brand awareness (Aunyawong et al., 2020). Brand awareness is the extent to which a brand is recognized by potential customers, and is correctly associated with a particular product. Expressed usually as a percentage of the target market, brand awareness is the primary goal of advertising in the early months or years of a product's introduction (Percy & Rossiter, 1992). Brand awareness is related to the functions of brand identities in consumers' memory and can be reflected by how well the consumers can identify the brand under various conditions. Brand awareness includes brand recognition and brand recall performance. This does not necessarily require that the consumers identify the brand name (Keller, 1993).

A brand is the meaning behind the company's name, logo, symbols and slogans. Having a unique and memorable brand helps B2C businesses build brand awareness and

create a long-term position in the marketplace. Brand awareness is a measure of how well B2C businesses' brand is known within its target markets. Creating brand awareness is usually the first step in building advertising objectives. Before B2C businesses can create a favorable impression or motivate customers to buy, they have to become aware of B2C businesses' brand and its meaning. The highest level of brand awareness is top of mind awareness. This is when customers think of B2C businesses first when they need to make a purchase within B2C businesses' product category. (Farris, Bendle, Pfeifer, & Reibstein, 2010). B2C businesses can build top of mind awareness through repeated exposure and consistent delivery of a good product or service over time. This is a huge advantage in the market when customers enter a buying situation and B2C businesses' brand immediately comes to mind first. The importance of brand awareness has become increasingly significant with the evolution of the Internet and digital technology. The public is more equipped with mobile and social media tools to communicate quickly about B2C businesses' brand -- good or bad. This means that establishing a strong reputation for good products or services, integrity in B2C businesses' business practices and community involvement are even more critical to long-term success (Kokemuller, 2007).

# 2.4 Corporate Image Improvement

B2C businesses employ digital marketing in order to improve their corporate image. The company image is referred to the set of perceptions that people have of organizations (Lemmink, Schuijf, & Streukens, 2003) "Corporate image" was once advertising terminology but is nowadays a common phrase referring to a company's name. The "image" is what the public is supposed to see when the corporation is mentioned. In other words, corporate image has been defined variously as the total impression that the entity makes on the minds of individuals (Dichter, 1985); and the image associated with the name of an organization (Gatewood, 1993).

Several factors have contributed to the increasing importance of corporate image in recent years. For example, the business climate in the Indonesia has become one of environmental complexity and change (Aunyawong et al., 2020). This has forced many B2C businesses to significantly alter their strategies to better compete and survive. The acceleration of product life cycles is another vital dimension of the turbulent business environment (Olins, 1989). Globalization has been still another catalyst in the rise of corporate image programs, as companies have sought ways to spread their reputations to distant markets (Young, 1996). A related factor is that as a corporation expands its operations internationally, or even domestically, through acquisitions, there is a danger that its geographically dispersed business units will project dissimilar or contrary images to the detriment of corporate synergy (Schindler, 2000).

A final factor stimulating the current interest in corporate image is society's growing expectation that corporations be socially responsible. Many of today's consumers consider the environmental and social image of firms in making their purchasing decisions. Some B2C businesses have recognized this reality and reaped tremendous benefits by conducting themselves in a socially and environmentally responsible manner. Some of these B2C businesses act out of genuine altruism, while others act out of a simple recognition of the business benefits of such behavior (Ind, 1992).

# 2.5 Factors relating Expectation of Digital Marketing Adoption

This study focuses on the implementation of digital marketing, Use intensity of Website Marketing and Use intensity of Social Media Marketing (SMM), which apparently relate to the expectation of B2C Businesses.

# 2.5.1 Use intensity of Website Marketing

In this research, B2C Businesses will be measure their uses of website as marketing tactic. Use intensity of Website Marketing is the extent of website which is being use by B2C businesses. Website Marketing refers to a broad category of advertising that takes many different forms, but generally involves any marketing activity conducted online. Marketers have shifted their efforts online because it tends to be significantly less expensive.

The website also presents exciting new opportunities for companies to profile their customers. The interactive space of the Internet simplifies a company's ability to track, store, and analyze data about a customer's demographics, personal preferences, and online behavior. This data allows the advertiser to provide a more personalized and relevant ad experience for the customer.

Website marketing is a new form of "non-intrusive" advertising, in which the customer actively chooses to visit and interact with the company's marketing communication efforts. Recent efforts involve the merging of information and images in innovative ways. Measures of the duration of time spent at a web site, depth of search through the site, navigation patterns through the site, and repeat visits to the site are crucial outcome measures for evaluating the effectiveness of such a site (Tsang & Tse, 2005).

# 2.5.2 Use intensity of Social Media Marketing (SMM)

In this research, B2C Businesses' use intensity of Social Media Marketing will be measured as well. Use intensity of Social Media Marketing (SMM) is the extent of Social Media, such as Facebook, Instagram, Youtube, etc., which is being used by B2C businesses. Social media marketing is a form of Internet marketing that utilizes social networking websites as a marketing tool. The objective of SMM is to create content that users will share with their social network to help a company increase brand exposure and broaden customer reach. SMM helps a company get direct feedback from customers (and potential customers) while making the company seem more personable. The interactive parts of social media contribute customers the opportunity to ask questions or voice complaints and feel they are being heard. This aspect of SMM is called social customer relationship management.

SMM became more public with the enlarged acceptance of websites such as Twitter, Facebook, MySpace, LinkedIn, and YouTube. In response, the Federal Trade Commission (FTC) has updated its rules to include SMM. If a company or its advertising agency offers a blogger or other online commenter with free merchandises or other inducements to generate positive buzz for a manufactured goods, the online comments will be treated legally as endorsements. Both the blogger and the company will be held responsible for ensuring that the incentives are clearly and noticeably disclosed, and that the blogger's posts contain no misleading or unsubstantiated statements and otherwise complies with the FTC's rules concerning unfair or deceptive advertising (Rothstein & Rouse, 2011).

# 2.6 Hypothesis Development

For this research, we have created the conceptual framework based on existing knowledge and theoretical perspectives from critical literature review. The conceptual framework has been developed to explain the relationship between the use intensity of two types of Digital Marketing Tactics, Website Marketing and Social Media Marketing, and two different expectations. Independent variables are Use intensity of Website-Marketing and Use Intensity of Social-Media Marketing. Dependent variables are Corporate Image Development and Brand Awareness Creation. Accordingly, data from both primary and secondary sources will be used to test the validity and to support the conceptual framework in answering the research problem.

To create brand awareness, the companies have to design the advertisement emphasized the interesting and recognition of potential customers and keep out of sale volume (Percy & Rossiter, 1992). Previous study found that most of the US B2C businesses, using social media, mostly expected to create brand awareness. However, others expected to create Brand loyalty, and to increase sale volume (Chainirun, 2011). Social Media Marketing can have an exponential effect on brand awareness. According to a study from Ipsos, 38 percent of people have recommended a brand they "like" or follow on a social network (Roesler, 2014). In contrast, Website Marketing, particularly Landing Page, was quite used to increase sale volume rather than create brand awareness. The B2C businesses customarily use landing pages to reach information of potential customers. The B2C businesses propose the website visitor to leave their contact information for some benefits, such as product discount (Nusse, 2014). As both digital marketing tactics are used for different mainly expectations of different, the following is hypothesized:

H1a: Use Intensity of Website-Marketing negatively relate to Brand Awareness Creation.

H1b: Use Intensity of Social-Media Marketing positively relate to Brand Awareness Creation.

Respect to positive information provided one-sided to customers, many B2C businesses often use website as the main marketing strategy to improve their corporate image. Those B2C businesses also believe that company Website-Marketing makes their businesses more corporate creditability than Social-Media Marketing due to domain name registration etc (Pongwittayapanu, 2008). However, some B2C businesses, focusing on social Media, expect more advantages in terms of customer communication, so they can know customers' feedback and deal with the problems effectively. Moreover, Social-Media Marketing can represent modern corporate image (Wijaya, 2014). The concept of Corporate Image is usually associated with large B2C businesses, but small B2C businesses also concern a corporate image. As B2C businesses using of Website-Marketing are more directly concern with corporate image issue, the following is hypothesized in order to compare the extent between both marketing tactics:

H2a: Use intensity of Website-Marketing positively relate to Corporate Image Development.

H2b: Use Intensity of Social-Media Marketing positively relate to Corporate Image Development.

#### RESEARCH METHODOLOGY

# 3.1 Samples and data collection

Participants in this study were individuals, running B2C Businesses in Nonthaburi, Thailand. Sampling technique used to select samples in this study was convenience sampling. The researcher was approached to gather the completed questionnaire from entrepreneurs or business owners, marketers and managers in 100 B2C Businesses, using website marketing and social media marketing, in various industries (including coffee, fashion clothing, soccer clothing, cosmetics, shampoo, chocolate, sports shoes, language academy, music academy, garage, car accessary, magazine, and automobile parts) in May 2020. The respondents in each B2C business were contacted in person and were invited to reply the questionnaires. After those respondents accepted, totally 100 sets of questionnaires were diffused to them. All 100 completed questionnaires were gathered back by the researcher personally. The response rate expected is 100%.

# 3.2 Data analysis

Descriptive analysis of the empirical data disclosed that of 100 completed surveys. It was carried out employing by regression. The regression aims to learn more about the relationship between "several independent variables", including both main independent variable and control variable, and a dependent variable.

# **RESULTS AND FINDINGS**

According to Hypothesis 1a, Use intensity of Website-Marketing will be negatively related on Brand Awareness Creation. The result depicts that the relationship between two variables is positive and statistically insignificant ( $\beta$ =0.161; p=0.152). As a result, the Hypothesis 1a cannot be supported. In accordance with the Hypothesis 1b, Use Intensity of Social-Media Marketing will be positively related on Brand Awareness Creation. The result, as shown in the Table 8, depicts that the relationship between two variables is negative and statistically insignificant ( $\beta$ =1.033; p<0.001). Therefore, the Hypothesis 1b can be supported.

Additionally, the significant relationships between control variables brand awareness creation are found as the following. Business age positively associates with brand awareness creation ( $\beta$ =0.009; p=0.408) However, because the p-value is higher than 0.05, this result cannot be statistically supported.

According to dummy variables regression (dependent variable: brand awareness creation), the researcher selects one type of business which is beverage as a benchmark. This type of B2C business will be omitted from the regression and use for comparison with other types of B2C business that are included in the respssgression. Beta of the constant is used as a representative of the brand awareness creation of the type of B2C business that is omitted (beverage) is -0.952. There is only one result is statistically supported. Such result is found that negative beta of garage ( $\beta$ =1.002) means the brand awareness creation of B2C businesses which are garage is lower than the brand awareness creation of B2C businesses which are beverage. Because the p-value is lower than 0.01 (p-value=0.007), this result is statistically supported.

As the researcher use Corporate Image Development as dependent variable, R square is 0.900. It means that the regression model can explain about 90% of Corporate Image Development. R squared modified for the number of explanatory terms in a model or Adjusted R squared is 0.848.

According to the Hypothesis 2a, Use Intensity of Website-Marketing will be positively related on Corporate Image Development. The result depicts that the relationship between two variables is positive and statistically significant at 0.01 level ( $\beta$ =0.498; p<0.001). Therefore, the Hypothesis 1a can be supported. In accordance with the Hypothesis 2b, Use Intensity of Social-Media Marketing will be positively related on Corporate Image Development. The result, as shown in the Table 10, depicts that the relationship between two variables is positive and statistically significant at 0.05 level ( $\beta$ =0.463; p=0.013). Therefore, the Hypothesis 1b can be supported.

Additionally, the significant relationships between control variables corporate image development are found as the following. Business Age positively associates with corporate image development ( $\beta$ =0.005; p=0.643) However, because the p-value is higher than 0.05, this result cannot be statistically supported.

According to dummy variables regression (dependent variable: corporate image development), the researcher selects one type of business which is beverage as a benchmark. This type of B2C business will be omitted from the regression and use for comparison with other types of B2C business that are included in the regression. Beta of the constant is used as

a representative of the corporate image development of the type of B2C business that is omitted (beverage) is 0.299. There is only one result is statistically supported. Such result is that negative beta of garage ( $\beta$ =1.079) means the corporate image development of B2C businesses which are garage is lower than the corporate image development of B2C businesses which are beverage. Because the p-value is lower than 0.01 (p-value=0.002), this result is statistically supported, as shown in Figure 1.

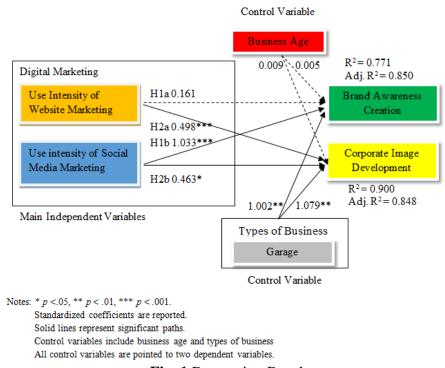


Fig.1 Regression Result

# CONCLUSION AND DISCUSSIONS

This research aims to understand the influence of digital marketing types in relation to expected benefits of B2C Businesses in Nonthaburi. The main effect of use intensity of website marketing on brand awareness creation and corporate image development, evidence strongly suggests that the higher use intensity of website marketing leads to more corporate image development, but not to brand awareness creation. Moreover, the main effect of use intensity of social media marketing on brand awareness creation and corporate image development, evidence strongly suggests that the higher use intensity of website marketing leads to more brand awareness creation and more corporate image development as well, but lower extent to corporate Image Development. As a result, these results provide support to previous literature regarding the main digital marketing technique most of the B2C businesses use to create brand awareness is social media marketing. (Chainirun, 2011; Roesler, 2014). These results also sustain earlier literature that social media marketing can improve brand awareness and corporate image (Pawoot, 2008; Wijaya, 2014).

The findings from this study offer additional contribution to research that emphasizes the role of digital marketing tactics used by the B2C businesses. Although previous studies found that using website and social media marketing could benefit B2C business success, the present study provides supplementary comprehension that the types of business is also probably conditional on brand awareness creation and corporate image development. This

study found that the specific type of B2C Businesses, garage, is unnecessary to create their own websites in order to develop their corporate image. They have good corporate image, comparing to others, without website marketing. Thus, future research that aims to investigate the impact of different types of businesses using digital marketing tactics on expected benefits. Moreover, the researcher should consider some other business models such as Business-to-Business (B2B), Business-to-Customer (B2C), Business-to-Government (B2G), Customer-to-Business (C2B), Customer-to-Customer (C2C), Government-to-Customer (G2C), People-to-People (P2P), and so on.

Regardless of these findings, this study has some limitations. First, the results are based on cross-sectional data, so making causality hard to be implied. Future study should solve these problems by using longitudinal data collection. Second, due to the time limitation, the samples collected for this research arose from a few B2C businesses in Nonthaburi. The generalizability of the findings is confined by excessively small sample size. Consequently, future research should gather data in a larger sample size. Third, the owners or entrepreneurs, marketers, and managers of B2C-Self evaluated their own businesses concerning brand awareness and corporate image. Therefore the evaluation might be exaggerated and unreliable as those respondents might be untruth to the interviewer or might attempt to disguise their attitudes. The B2C business evaluation by customers is good alternative method. Forth, the questionnaire was adapted from doctoral dissertation, not from research published in top journal. It also consists of a few questions in each aspect. Subsequently, a poor-designed questionnaire might not meet the research purposes because respondents might not fully understand the questions and are probable to refuse to answer. This was caused by inadequate preparatory work. A good questionnaire prepared and worded to inspire respondents to provide precise, unbiased and comprehensive information is needed. Future research that addresses these limitations may provide better accurate information about the impact of digital marketing tactics on brand awareness creation and corporate image development.

This study provides the new B2C businesses with useful implications for planning the proper digital marketing strategies. This research also provides the existing B2C businesses with useful implications for improving business effectiveness, especially in terms of brand awareness and corporate Image.

In conclusion, the researcher suggests that several digital marketing tactics have their own prominent point. B2C businesses are advised to not only focus on one digital marketing tactics, but they also combine those tactics as B2Cs' strategy. This leads to excellent efficiency in brand and corporate image. Then, it also leads to business success.

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# THE SERVICE QUALITY STRATEGIES SKILLS IN AN ECONOMY HOTEL IN THAILAND

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# **ABSTRACT**

This paper has been conducted with the aims is exploring the strategic skills that are involved with developing hotel service quality for an economy hotel in Thailand. The objectives are (1) to study the expectation, perception and gaps between customers' expectation and perception on hotel services quality. (2) to dimensions of service quality in an economy hotel in Thailand. The key findings are: (1) service quality of hotels in Thailand was moderately low; hotels were not able to deliver services as expected. (2) Customer expectation on services of the economy and boutique hotels was higher than that on the business hotels. The management is able to apply research findings in designing and prioritizing hotel strategies skills, and to recognize weaknesses of service quality to improve service quality in hotel business. Qualitative research methods and in-depth interviews with Semi-Structured Interview. And questions were employed to collect the data. The participants of this study were the executive staff of an economy hotels. Analysis was used to examine the data. The result shows that dimensions of service quality in hotels from factor analysis consist of 6 dimensions are Trust, assurance, responsiveness, servicescape, willingness and empathy. Furthermore, the hotel location appears to be the most important factor when travelers make decisions of where to stay, followed by staff, the room type, and the room facilities. In addition, The management is able to apply research findings in designing and prioritizing hotel strategies skills, and to find weaknesses of service quality to improve service quality in hotel business.

**Keywords**: service management, service quality, Thailand, economy hotel

#### INTRODUCTION

Recently, the tourism industry has become an industry that is very important to the global economy, an industry that is important to the progress, economic and social stability of the country. Since bringing currency into many countries, creating money and jobs for local people and people in the country (Hutter, Hautz, Dennhardt & Fuller, 2013; Wright, 2014). The tourism industry has grown to become the main product in the system. Rapid international and domestic trade and in many countries. Thailand is one country that has a tendency of increasing income from tourism continuously. The hotel business is an important business in the growing tourism industry, with the main supporting factor from the increase in the number of foreign tourists visiting Thailand (Boonlert Chittangwatana, 2013).

According to the 10th National Economic and Social Development Plan (2017-2020), it focuses on the restructuring of the service sector to have potential in order to expand the production base and service marketing of the service business to cover the region. And develops Thainess to be more linked to foreign countries. By using the service business to drive and stimulate the economy (Office of the National Economic and Social Development

Board, 2018). And to enter into the ASEAN Economic Community (AEC) in the year 2015, 10 ASEAN member countries must be prepared to cope with changes in both trade and service. Including, the potential is able to compete in the country among the member groups which Thailand has established a road map for tourism and aviation (Department of Trade Negotiations, 2018). The ASEAN member countries have foreseen that Thailand has the potential and is responsible for overseeing ASEAN liberalization, hotel business, and the aviation business. However, Thailand faces the problem that competition barriers with increased liberalization from existing markets and new competitors. Including, Thai hotel operators experiencing significant problems which are 1) labor costs because of higher wages when compared to ASEAN member states. 2) Higher costs due to material adjustment, construction equipment, maintenance and raw materials that used in food production and fuel. 3)The market competition situation of competing businesses in order to attract customers by focusing on leadership rather than service quality.

International economical hotels have also entered the fast-growing industry. Domestic and foreign tourists have continued to grow. There are a large number of ordinary business people and tour workers. In order to better meet the needs of this group of people, economical hotels have been in recent years. The development of budget hotels has catered to the new direction of hotel development and has received positive responses from the society and the market, as well as a lot of economic benefits. Economical hotels have more business opportunities and have attracted a wider range of mass travelers and small and medium sized businesses. The rooms are the only core products, low prices, service standards, comfortable environment, superior hardware, and cost-effective modern hotel formats. Regardless of the number, size, grades of hotels, or the property rights mechanism, business model, management service standards, and industry system, there are huge room for development for economic hotels. The development of economical hotels is the current demand for the development of the hotel industry at the new stage, the demand for social and economic development, the demand for reform and opening up, and the demand for economic globalization. The development of economical hotels is not only necessary and feasible, but also has realistic urgency.

From the above problems, driving the business strategy of Thai economy hotel operators is important. With the increasing consumption of tourism in Thailand in recent years and the increasing frequency of business activities, the development of economy hotels is also very important. The quality of services for brand economy hotels has not kept pace with the development. Thus, to focus on creating strategies and methodology or technique that support Thai economy hotel industry to grow and be competitive and efficiency. Therefore, the researcher interested to find the strategic skills of the service quality that affects the growth situation of the Thai hotel industry in both with the rate of change of sales, cost and net profit. Due to the mentioned above, the researcher is interested to study service quality strategy skills in order to create the growth of the economy hotel in Thailand. The key of research findings are: (1) service quality of hotels in Thailand was moderately low; hotels were not able to deliver services as expected. (2) Customer expectation on services of the economy and boutique hotels was higher than that on the business hotels. This paper aims to explore the strategic skills that are involved with developing hotel service quality for an economy hotel in Thailand. The objectives are (1) to study the expectation, perception and gaps between customers' expectation and perception on hotel services quality. (2) to dimensions of service quality in an economy hotel in Thailand. This paper' structure consists of the literature review in Section 2, methodology used in this research in Section 3, data analysis in Section 4, followed by the conclusions and future research in Section 5.

#### LITERATURE REVIEW

# 2. 1 Service Quality

Service quality is an achievement in customer service. It reflects at each service encounter. Customers form service expectations from past experiences, word of mouth and marketing communications Peng et al., (2011). In general, customers compare perceived service with expected service, and which if the former falls short of the latter the customers are disappointed. The measurement of subjective aspects of customer service depends on the conformity of the expected benefit with the perceived result. This in turns depends upon the customer's expectation in terms of service, they might receive and the service provider's ability and talent to present this expected service. Successful companies add benefits to their offering that not only satisfy the customers but also surprise and delight them. Delighting customers is a matter of exceeding their expectations. A business with high service quality will meet or exceed customer expectations whilst remaining economically competitive. Evidence from empirical studies suggests that improved service quality increases profitability and long term economic competitiveness. Improvements to service quality may be achieved by improving operational processes; identifying problems quickly and systematically; establishing valid and reliable service performance measures and other performance outcomes. Service quality can be related to service potential (for example, worker's qualifications); service process (for example, the quickness of service) and service result (customer satisfaction) (Scheuing et al., 1993). Furthermore, service quality has been creating positive business differences in a long term, and it has affected successful business competition (Alexandris et al., 2002). Lewis (1983) supported that service quality influenced customer behaviours in terms of word of mouth and service usage, resulting in service loyalty. Some scholars defined service quality in the same direction that "service quality" was identified by consumers or customers. Customers compared their expectation with actual perception obtained from service providers, and, then, evaluated their satisfaction (Berry et al., 1988).

2.1.1 Service Quality Measurements: it is difficult to measure service quality objectively due to its intangible and diversified characteristics. To increases competition, the hotel business is looking for new tools to create competitive advantages. Therefore, production and consumption occur concurrently and it is impossible to store any service (Zhu, 2008). With the aforementioned qualifications, service quality measurement is complicated and difficult. Measuring tools for service quality had been divided into three methods; (1) comparison between customer expectation and perception; (2) comparison between total of customer satisfaction and actual service quality; and (3) comparison between actual services delivered to customers and customer expectation. Scholars also propose several tools for service quality measurement such as importance-performance assessment or IPA, SERVQUAL, SERVPERF (Cronin et al., 1992; Akan, (1995) and Smith et al., 2007). It is a measure unit of customer expectation on services only, not comparison. Therefore, it is putting a large amount of effort into selecting the best tools or methods to measure service quality development. From literature review, the most accepted and favourite measuring tool is SERVQUAL (Carrillat et al., 2007), [14] as a tool for understanding the factors affecting the service quality in the hotel business, including gaps, from the customers' perspective. The outcomes of these studies have delivered contributions in relation to understanding the dimensional structure of service quality in the economy hotel industry (Maria and Serrat, 2011).

According to Akbaba (2006) studied the service quality of hotels in Turkey by analyzing the expectation and actual perception of service quality based on 29 characteristic indicators, which were applied from SERVQUAL, and the most important factor reflecting

the overall needs of service quality measurement was tangible services. Wilkins et al (2007) also studied the service quality of hotels in Australia. The seven factors were developed from SERVQUAL, covering style and convenience, room quality, special offers, quality staff, personality, fast service, and quality food and beverages. In addition, other research has indicated and explained that the characteristics of service quality factors and service priorities, from the customers' perspective, differed depending on the hotel type.

- 2.1.2 Hotel service quality evaluation: an economy hotels are new, and the hotel industry is positioned in the middle and low-priced markets, there are few theoretical studies on economical hotel services. However, budget hotels are a category of the hotel industry. The study in this paper refers to a large number of theoretical studies on hotel service quality. As for the evaluation of hotel service quality, there are three evaluation methods based on the evaluation body. One is the evaluation of the customer as the subject of evaluation, the other is the evaluation of the organization as the main body, and the third is the third party evaluation based on the industry competent department. Yang (2010) summarized and summarized the evaluation models of foreign hotel service quality research, and conducted some in-depth discussions on some of the more influential classical models. Wang (2010) conducted a survey on the factors affecting customers' stay at the hotel and found that the location of the hotel and the quality of hotel services are the most concerned.
- 2.1.3 Hotel Service Quality Control: hotel service quality control refers to the adoption of certain standards to take appropriate measures to ensure the implementation of hotel service quality, and achieve effective control by timely adjustment of goals. Research in this area is also a hot topic in hotel service quality research. Sun (2009) studied high-star hotels in Nanchang and found that the key moment for customers' satisfaction with hotel service quality was service-to-case. To improve customer satisfaction, it was necessary to start from the perspective of service. Moreover, Peng (2011) reviewed the research on hotel service quality and customer satisfaction, and discussed the impact of hotel service quality on satisfaction.

# 2.2 Economy Hotel Concept

The concept of an economy hotel comes from abroad. Developed countries in Europe and America divide hotels into three categories: luxury hotels, mid-range hotels and economy hotels. Among them, economy hotels, compared to luxury hotels, save the luxury halls, highend restaurants, conference rooms, fitness and entertainment facilities and other facilities. They only provide hotels that meet the most basic requirements for customers' accommodation requirements. Usually the prices of such hotels are higher (Wu, 2009). Research abroad on economic hotels was earlier, and scholars put forward their own concepts from different perspectives. According to the definition of the Smith Travel Study (economy hotels refer to hotels that are kept at a low price by 20% of price-sensitive consumers in the low-end market. The hotel is mainly developed for a new type of hotel in the traditional sense of full-service hotels. Format. Liu (2008) also believes that budget hotels should focus on rooms, shopping and entertainment functions, be simplified as much as possible, or even canceled, catering services can only provide breakfast service, and the main service as Bed (Breakfast), although the economy is without losing the standard.

Furthermore, the main performance is to highlight the high efficiency of organization settings, streamlined staffing, and outstanding people-oriented management concepts. Job responsibilities can be as versatile as one person; Fourth, equipment configuration and maintenance and maintenance, its performance is to pay attention to less investment, and pay attention Simple and practical and low cost operation. The views of several researchers mentioned above are related to the economy from the aspects of facilities and equipment, hotel prices, and market positioning. Hotels define the concept. The point of view raises the

question of the "relativeness of economy hotels"; Point 2 is characterized by "emphasis on room products as the core"; three points of view will be included in all social hotels Point 4 provides a more comprehensive definition of market, organization and service (Wang, 2010).

#### RESEARCH METHODOLOGY

Before using the content analysis method to evaluate the design of the system, the author once again clarified that the object of this study is the economical hotel where scholars are less involved, and on this basis, selected to study a certain area of economical hotels, namely famous tourism City - economic hotel in Bangkok. Combining the characteristics of economy hotels, the article translated the dimensions of the SERVQUAL rating scale into the tangibility of the hotel services, the ability of the hotel to fulfill the promised service, the responsiveness of the hotel to provide services, the guarantee of the service provided by the hotel, and the hotel from the customer's point of view. The ability to provide services in this dimension is more suitable for the study of this reserch.

# 3.1 Research Design

In this paper, an adapted version of SERVQUAL mainly developed from Akibaba (2005) was used to analyze the service quality expectations and perceptions of the guests. A self-administered questionnaire was applied to measure the expectation and perception of 29 service quality characteristics based on a review of the literature on SERVQUAL and indepth interviews with practitioners in the Bangkok economy hotels. The questionnaire for this study included two main sections. The first section of the questionnaire was designed to measure the respondents' expectations and perceptions regarding the service quality offered by the economy hotel in Bangkok regarding attributes such as the convenience of the location, sufficient equipment/decoration, safety, hotel staff-guest interaction, etc. Some service quality characteristics were revised in order to make them more applicable to the economy hotel setting in Bangkok. The questionnaire was structured so that hotel guests were asked to rate their level of agreement for the hotels at which they staved on a five-point Likert scale ranging from (1) indicating "very low" to (5) indicating "very high." The second part of the questionnaire was designed to elicit demographic and travel information about the respondents. The questionnaires were distributed to customers from 50 economical hotels in Bangkok, where there is a big market with high growth and favourites among chain hotels and investors from all over the world. A convenience sampling approach was employed and a total of 250 questionnaires and research invitation letters were distributed to all the target hotels. Hotel guests who had checked out from the hotel and were about to leave were approached.

Statistical software was used to analyze the data with regard to the descriptive analysis and the expectation and perception analysis of the 29 characteristics. The paired sample t-test was applied by calculating the mean and difference/gap. To access the high quality of information, this research will be designed to use mix program of question because some part of the question is 'Close Ended Question'. Meanwhile, this research believes that forcing the interviewees by setting the set of answers might not be synchronized with the reality. So, the research also using the positive effects of 'Open Ended Question' to gather the complete data based on the preference of respondent.

#### **RESULTS AND FINDINGS**

# 4.1 Descriptive analysis

From the data collection and averages of expectation, perception and gap of 29 characteristics mentioned, customer expectation on services of economy hotels in Bangkok was at the moderately high level. The most expected factors of customers were hotel security, friendly staff and staff service mind; their least expected ones were facilities for disabled persons, personal care products such as soap, shampoo, towel and special care and services. Once travelling to other big cities, customers are the most concerned about hotel/accommodation security. Additonlly, expectation on service mind is derived from hotel characteristics (as service-based business). Therefore, tourism public relations should focus on hotel security and friendly services in order to increase tourist confidence and attract more tourists. The least expected, sufficient facilities for disabled persons, reflects their fewer choices for disabled or close-minded society; it is different from other countries such as Australia, EU or UK, etc.

Based on the results, an average score of customer perception on service quality of economy hotels was reflecting service delivery at the moderately high level. The top-three characteristics perceived by customers were friendly staff, hotel security and service mind. The least perceived characteristics were facilities for disabled persons, sufficient service units such as cafeteria, meeting room, swimming pool and business facilities, and special care and services. It meant that hotel staffs were able to apply Thai identity in service delivery efficiently. Even though, in the recent years, several circumstances affecting tourism business in Thailand occurred, tourists are confident with security measurement of hotels in Thailand. The least perceived characteristics reflected a low priority of disabled people in Thailand. Since the studied hotels were located in the city center with limit areas, they cannot offer service units such as swimming pool or meeting room, etc. Special care and services represent that economy hotels in Thailand did not emphasize on special/ individual services, but overall services such as special services depended on skills and capabilities of each individual staff who may understand customer needs thoroughly while training and high experience were required.

# 4.2 Hypotheses test results

According to the regression analysis, we tested five previous assumptions about the impact of previous service quality factors on customer satisfaction, discovered the tangibility of hotel services, the ability of hotels to fulfill promised services, the responsiveness of hotelprovided services, the guarantee of hotel-provided services, and the availability of hotels. The ability to provide services from the perspective of customers has a significant impact on customer satisfaction. the tangible nature of hotel services, the ability of hotels to fulfill promised services, the responsiveness of hotel services, the guarantee of hotel services, and the ability of hotels to provide services from the perspective of customers all have a significant impact on customer satisfaction. The degree of influence on customer satisfaction is in the order of strong weak: the guarantee of hotel services, the tangibility of hotel service tangible room services, the tangibility of other hotel services, the responsiveness of hotel services, and the customer's ability to view The ability to provide services, the hotel's ability to fulfill promised services. 1.The tangible part of hotel services has a significant effect on customer satisfaction. 2. Hotel's ability to deliver promised services has a significant impact on customer satisfaction. 3.The responsiveness of the service provided by the hotel has a significant effect on customer satisfaction. 4. The guarantee of hotel services has a significant impact on customer satisfaction. The services provided by the hotel from the perspective of customers have a significant impact on customer satisfaction.

# **CONCLUSION AND DISCUSSIONS**

In summary, the analysis of specific indicators by following three aspects: (1) in terms of facilities and equipment, the customer's evaluation of relevant indicators has not reached an ideal level, and the overall score is only about the average value. Among them, the customer's evaluation of the main facilities provided by the hotel is slightly better, such as bathroom, room, bed, etc. Many evaluations are to complain that the hotel does not provide Expected standards, such as air conditioner, hot water, TV,etc. (2) In terms of services, due to a large number of samples mentioning customers staying at the hotel, there is a lot of inconvenience in parking. As a result, most customers think that hotel parking services are far from meeting their expectations. Therefore, hotel managers should attach great importance to the hotel's ability to provide a matching parking area. From the perspective of the number of reviews, the customers pay more attention to the quality of the hotels, but their ratings do not even meet the average expectations. Therefore, hotel managers should realize that for economy hotels, breakfast service is the only service that is second only to the guest room in the limited service. It is a more sensitive point of consumption for economy hotel customers and there is room for improvement. (3) In terms of the surrounding environment, geographical location and surrounding traffic are highly valued by customers, and their emphasis is higher than that breakfast services, in which geographical location ranks among all indicators. Moreover, the room concern index, it can be seen that the surrounding environment is the hotel manager to enhance hotel occupancy. The rate must not be underestimated. Overall, the location of the hotel and its surrounding facilities have become a very critical factor, because a good site selection is not only conducive to the social service of the hotel's non-core business, but also have customers.

The key findings from our study are: first, service quality of economy hotels in Thailand was moderately low; hotels were not able to deliver services as expected; second, customer expectation on services of the economy hotels was highest. This paper has contributed to the theoretical advancement of consumer-process decision theory, service marketing and hotel industry literature by analyzing some pivotal service quality issues in a specific type of hotel. Identifying accurately the specific expectation of customers, the dimensions of the service quality around which customers make their quality evaluations, and their importance for customers carries vital importance in quality improvement efforts. This research also helps in discovering the needs, wishes and expectations of the guests. The same is analyzed by determining the characteristics of service quality that are most important for guests. Having knowledge about these areas would definitely help managers in the challenge of improving the service quality in the economy hotel.

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# SUCCESS FACTORS OF THE FOOD BUSINESS IN THAILAND

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#### **ABSTRACT**

Food business is one of the most popular business which could generate income and drive the potential of Thai economy. There are many type of food business such as business franchise, food industry own brand and local food business. However, tourism business plays an important role in supporting an expansion of the Thai restaurant to be broadly acceptable and well known. Due to the high growth potential, food business attracts new entrepreneurs to enter in the market which is the leading cause of high competition. Therefore, the business owners have to be flexible and adaptable in order to response a change of customers' behavior. Moreover, taste and quality improvement also should be consider as an important role to fulfill customers' need. Recently, food business growth increase annually around 10.10%. This reflects an opportunity to growth in this market. Nevertheless, to boost sales efficiency, it is important to move faster than competitors in order to be differentiate such as creating food storytelling. In addition, increase online sale channel and food delivery service also consider as a big portion to generate more income

The objectives of this research consist of 2 components: 1) Thai food business factors including human resource, innovation, technology, business strategy, product quality, leadership, teamwork and product label. 2) The measurements of Thai food business success including business performance, competitive advantages, reliability and sustainability.

Keyword: Thai food business, The success of food business in Thailand

# **INTRODUCTION**

The ministry of commerce has a policy to promote development and driving Thai food business which is the service business that Thailand has high potential and has opportunity to increase economic value assigned Department of Business Development to extend the use of logo "Thai SELECT" by Department of International Trade Promotion has proceed until accepted in foreign countries to develop and rising Thai Restaurant Standard and Quality of Thailand Products included facilitating to customer both Thais and foreigner to increase market opportunities of food business under idea "Visit Thai, Eat Thai, Fly Thai" This is the target for restaurant accepted this logo "Thai SELECT" nationwide coverage to stimulate the economy through consumption of Thai food and rising Thai Restaurant Standard and Quality of Thailand Products included facilitating to customer both Thais and foreigners who travel in Thailand and have to eat traditional Thai food by seeing logo "Thai SELECT" before choosing restaurant (Annual Report in 2018)

#### **OBJECTIVES**

- 1. To study factors in the food business in Thailand
- 2. To study the measurement the success of food business in Thailand

# **METHODOLOGY**

Literature review focus on food business in Thailand

#### Factors of food business in Thailand

Food business means the business operation of food service that has to production strategy, management of stock, raw material, freshness, newly, cleanness and safety till composing various menus which has the excellence test, having various healthy menus and combination variety of menus according to the customer popularity, creating distinctive identity in each type of food. Food has the story to be suggested to create the newness and get the mood for consumption, impressive service in addition entrepreneur has to the marketing strategy and management strategy by taking the innovation, technology, digital platform and online in the food business affecting the loyalty and success in food business. Currently, there are many entrepreneur operate under highly competitive situations; therefore, each entrepreneur should find how to access the awareness of new customer the most and analyze customer behavior trend to respond customer need the most so the majority to run food business particular restaurant should have 1). Location of restaurant should be suitable convenience for customer both of traveling and parking service 2). Distinctive food, delicious, popular with people for all level and can tell the story of restaurant 3). There is promotion on multi-channels, there are food menu organized and organize queue system that not make the customer waiting for long time and various promote models 4). Provide fast service and accuracy every service points 5). Provide online service and use digital platform at customer service 6). Always examine food quality to meet standard and respond the requirement of customer expected 7). Check product stock and readiness of material included freshness, newly and clean to preserve and flavor of food 8). Internal administration of food business that make every department work efficiently 9). Find partner to present food, suggest beverage or other food which respond customer need in food business (https://scbsme.scb.co.th) and food business factors in Thailand as follow;

Human Resource means every people since entrepreneur, manager, employee and labor who have the knowledge, abilities, vision, skill and experience that apply those knowledge to develop the business in all areas to progress become the demand of customer not only product also service by creating and developing marketing strategy through customer awareness to create power to compete in the market and creating the business success

Innovation means ideas and new methods that can create the potential for food business by taking the innovation to produce, cooking, providing services and other which are created maximum satisfaction for client and customer to create power in the market competition in addition distribution channel by using innovation to operate which cause the increasing food business potential for sustainability more. Nowadays, innovation plays an important role in economic and social development as a result of continuous process of globalization, increasing the customer expectation and enhance competition of administrative organization such as service provider of food has to be in the market focusing on development, it necessary has innovation activities continuously. Innovation cause change in products and services

Technology means modern evolution in creating business potential affecting the competitive advantage when takes the technology in food business that can promote food

products, cook, service and distribute cause convenience to customer, creating public relation with customer closely, entrepreneur can apply the technology to make understand and awareness an ingredient, the number of calories in each food type and food appearance from AR and VR technology which are the business administration with the goal to increase customer satisfaction cause the loyalty to product and food business also affecting sustainability of business so applying the technology in food market see that customer currently accept technology more this means that it increases competitiveness and allow customer to quickly access desired product, creating innovation to quickly respond the customer need. Trend that arisen in the advent of digital technology come to change more situation affecting the industry which challenges for ordering food in the future of food market to present the unlimited options and conveniences. Successful entrepreneurs who will find sale promotion strategies for customer have the digital technology combination between service and new experience in business making customer and allowing the customers to be comfortable in using service. Alakaleek, Wejdan M. (2015); Eshraghi, Ali (2017) said entrepreneurs, who use technology, apply modern evolution in business operation to create sustainability growth able to apply technology in production and service process caused the convenience and fast as demand in the market

Business management strategy means business management method to succeed consist of strategy 7Ps which is step by step strategy management process and components of strategy that have the target, plan and proper and efficient operation to respond the customer's requirement, creating the strengthening market competition, higher return and sustainability

Quality of product means the value of food including freshness, clean, safety and great taste that the food service entrepreneur provide the service to meet the customers need cause customer satisfaction, confidence to food business through repeated eating, recommendation, word of mouth and loyalty to food and food business affecting the sustainability from higher income

Leadership mean the potential of leader to operate business and bring the organization to succeed including vision, courage in making decision and doing that to create the benefit to business and organization by creating quality of network and able to solve problem occurring in business toward sustainable progress

Potential of team work mean ability of all member in the team to outstanding to operate effectively and bring success to organization from member who have teamwork skill, responsibilities and intellectual potential to solve problem and develop organization progress efficiently

Brand means the sign to present the quality of products and service that the customer believes, it has the identity in each product and that service which is popular in market particular customer who is high acceptance affecting the loyalty from their satisfaction cause the business sustainable and get the trust from them

# Measuring success of food business in Thailand

Measuring success of food business in Thailand has 4 parts as follow;

High turnover means that the business operation by ability of executive who is the leader and employee to apply the marketing strategy that can access the customer by multichannels both online and offline which bring the innovation and new technology to apply in production and providing service to customer till their satisfaction and repeated buying forever in addition still increase new customers all the time cause high turnover. Food business in new Era bring more used digital platform for example using QR code more to reduce payment delays, less error, fast, preventing fraud from cashier and accountable sales all the time additional mitigation risk from carrying cash and no reserve cash to return as well

Market competition power means the potential of business causes human resource taking the marketing strategy by using innovation and technology to operate in business to produce product and service to respond the customer need, creating the impression for customer affecting loyalty to products and services lead to the market competition power efficiently. Jahangir M. Kabir (2016) said food business that providing service quality including food quality, physical environment, convenience, technology focusing on customer, price and accuracy price of ordering and speed of service affecting in loyalty increasing

Gaining confidence means gaining trust from clients and customers in products and service after customer got good experience in the past many times then they are impressed, positive attitude to service leading to loyalty in products and service; therefore, entrepreneur has to learn the demand of customer and find the way to respond their requirement by new method that creates the making decision option of customer for food business development. Nowadays, applying more new technology to create the ability to provide service for clients and customer from diversity and change that occur. Brita Rosenheim (2019) said food technology industry that food technology industry has the target to help the entrepreneur and investor in food system to make understand in issues which have development rapidly and trend of the factors affecting food technology industry, food technology is a global opportunity, food delivery, using technology nutrition, present potential in a long term and present the driving force that is still challenge

Sustainability refers to the ability of business to constantly grow and success. To build a customers' awareness, it is important to set marketing strategy and continuously create customers' satisfaction and loyalty. These could help business not only to maintain old customers but also can increase new customers. Entrepreneurs use innovation and technology in their business operations to develop service capabilities and products' production. Moreover, online channel is the platform that business owners can build customer relationship which can effect to business success. One factor that can imply to the development of food business is high competitors in the market. Currently, there are many small business as the price of food is higher. Customers' behavior changes because family income decrease and the food trend has changed to healthy product. Food businesses generate higher revenue imply that the food industry has developed systemically. As the high competition, it forces the business owners to plan, set strategy and develop business process. Moreover, it is important to be flexible and adaptable as the trend and customer behavior change. However, customers expect the food to be good quality, safety and variety because customer get more information and precise data to choose more healthy food

In addition, to understand customer behavior is the important factor to get competitive advantages in food business. The business owner should pay attention to customer attitude to food and understand social trend because food can effect to customer health. Furthermore, to provide variety of food choice and innovation services are key process to increase customer awareness. However, in food industry, innovation has been indicated to be a new change of product, process and business management

Researcher see that technology, innovation, marketing strategy and customer behavior which are the factors to succeed of food business in Thailand. Researcher think that all factors are important for survival of food business including the readiness to handle various situations to occur in the future due to each factor may be suitable with that occur in that food business success in Thailand. Pamela N. Danziger (2018) said technology that leadership in the current and future business will create higher sales and increase market share from electronic and food and beverage which are higher than other products due to the purchasing behavior according to the customer preference in part of coffee, snack, breakfast and candy are popular ordering from customer who are confidence in their purchase and online delivery including milk, meat, frozen food, vegetable and fruit respectively. Trend of food business in

year 2020 has contributing factors from the changing population structure such as smaller family, expansion of urban society and lifestyle of customer in addition the government promoted Thai tourism that cause the opportunity for food business.

#### RESULTS

Therefore, trend of food business in year 2020 should concern the factors as follow; 1). Using advance science to create food menus for customers get the valuable experience consumption additional great taste an emotion touch and common sense 2). Creative healthy food menus, less calories, less sugar, low sodium, low fat and organic products so food is clean and safety as the target of customer 3). Opening food service business has to unlimited both of time and location. Entrepreneur can respond customer's need anywhere and anytime from applying technology and innovation to serve the service for 24 hours by online service in digital platform and delivery all locations where are the customer's requirement that become strengthen market competition power 4). Expansion of gas station or convenience store including drive through service for convenience and fast 5). Coffee shop business where option of customer to choose in all level throughout Thailand. (www.ThaiSMEsCenter.com)

# **CONCLUSION**

To be successful in food service business, it is important to have production strategy, well-managed raw material stock in order to create freshness, cleanness, safety and tasty. Moreover, the varieties of fusion healthy menu also adapt to trend of customer. In addition, to be outstanding among competitors, introducing food storytelling, menu recommendation could make customers feel impressive. Furthermore, an entrepreneurs have to set marketing strategy, management strategy and know how to manage innovation, technology and digital online platform. Following the implementations as mentioned before could lead the business owners to be success and create customers' loyalty. Aymar Raduzzi and Joseph Eric Massey (2009) believe that customers' satisfaction is a key for business success and measuring the food entrepreneur success that consist high turnover, there is power to compete in the market, gotten confidence and sustainability.

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# THE INFLUENCE OF CONSUMER ATTITIDES AND BEHAVIOURS AFFECTING TO STARBUCKS BY TWO CASE STUDY OF THAI AND CHINESE CONSUMERS

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# **ABSTRACT**

The customers are the most significant in all businesses in the global scene. This is due to the fact that clients are the majority reason for the commercial business to drive towards their goal. In similar, this study also seeks for the various characteristics and behaviours of Thai and Chinese customers of Starbucks. Consumer behaviour is composed of personal, social, cultural and psychological factors. In this study has the mixed methods of research and survey questionnaires were delivered among 396 Thai and Chinese Starbucks customers, with the main goal of determining the consumer attitudes and behavioural factors towards Starbucks which two states. The results indicated the significant relationship between the respondents' demographics, consumer behaviour and attitudes towards a certain coffee brand, regardless of their nationality or demographical nature. With these identified, it is very clear that Starbucks was able to use the different marketing tools and the market environment analysis tools, considering the fact that it was able to gained Thai customers.

**Keywords**: Attitudes, Consumer behaviours, Starbucks

# **INTRODUCTION**

In the currently, the customers are the most significant in all businesses in the global because the clients are the majority reasons to drive the commercial to their goal similar to this research was festinating in consumers who are various characteristics and behaviours. This research wanted to concentrate on Cultural factors that there have three sub-culture elements. First, start with culture and customer behaviours, it will be defined to a complex and many terms, widely and broad also depend on originally states from. Furthermore, culture is influenced to customer behaviour purchasing. In contrast, client behaviours and culture were not completed without culture dimensions as power distance, expectation avoidance or privacy collectivism. Starbucks Overview, Starbucks Coffee (Thailand) Co., Ltd. was founded in Thailand since July 1998. Starbucks Coffee (Thailand) now operates 336 retail locations throughout the Kingdom of Thailand. The company is dedicated to making

the Starbucks Experience a rewarding part of the day for all its customers in Thailand, while contributing positively to the community through its sponsorship of sustainable coffee production with Thai hill tribes under the name of Muan Jai® (Thai blended coffee). Starbucks always initiates handcrafted beverages one at a time and invites customers to personalize their beverages. Starbucks partners strive to provide the best coffee experience and are always ready to share with customers background on Starbucks coffee heritage. For further information, please visit starbucks.co.th. In this research, there has two cases study of consumer behaviour in Thailand and CHINESE what are different in many behaviour factors. As Starbucks in Thailand is very strongly stimulate Thai customers' belief, attitudes and behaviours (Simon, 2009). It has more investment in Asian markets especially Thailand (McPherson, 2013) because Thai consumers do the essential role by increasing and developing plan of it in across Southeast Asia. Whereas, Starbucks in CHINESE is also having large plans to expand its business. It has over 700 Starbucks shops in this country.

Figure 1. Extant framework for buyer's mental processes (Black Box) at overview levels (Kotler & Keller, 2016)

STIMULI EXTERNAL FACTORS	BLACK BOX (BUYER'S MIND) INTERNAL FACTORS	RESPONSES
Marketing Mix Product Price Place Promotion	Consumer Characteristics Beliefs/Attitudes Values Knowledge Motives Perceptions Lifestyle	Purchase Product Brand Source Amount Method of Payment
Environmental Economic Technological Political Cultural Demographic Situational	Decision-Making Process Problem solving Information search Alternate evaluation Purchase Post purchase Evaluation	No Purchase

# LITERATURE & THEORY

The main purpose is to present detailed consumer behaviours that are the main factors of this literature review. It would define to four majority elements; Culture, Social, Personal and Psychological factors that there have sub-factors relevant to present how consumer behaviours are influenced to customers and grow its business significantly in two different countries to Starbucks brand. According to Akar and Topc u (2011), the attitude is able to define like "a person's enduring favourable or unfavourable evaluation, emotional feeling, and action tendencies toward some object or idea." Moreover, attitudes can make or control human thinking to be yes or no, right or wrong also move them forward to the purpose or escape from them as the same time. Therefore, the consumer attitudes are important to consumer behaviour because of they make them characters and conducts in fit to the right way toward purposes (Akar and Topc u (2011). Culture is widely recognised as a complex and multi-faceted term. It is generally understood to be wide and broad, or dependent on a certain country of origin, such as in the case of consumer behaviour. In this aspect, Nayeem (2012, p.78) identified culture as

"a powerful force in regulating behaviour." This indicates the strong influence of culture in terms of consumer behaviour, which includes buying and purchasing decisions. According to Reynolds (2013), the Starbucks management also has the huge plans of increasing its franchise business in the Thailand. According to James (2009) the Starbucks' brand is perceived by the average earning Thais as a high priced coffee. This is primarily has given the fact that a cup of Starbucks coffee is priced with at least half of the total amount of the average salary earned by a Thai. Based on a recent study conducted, the British consumers of Starbucks have been described as "discerning coffee" drinkers. Indeed, a large number of British consumers are big coffee drinkers who can tell the difference between the coffee being sold by another brand and the Starbucks coffee (Baker, 2012). The same study also presented that Starbucks in the UK have boosted its sales and revenue in the recent years because of the success of the Cappuccino and Latte improvements that the company implemented to suit the sensitive taste choices of the British consumers (Baker, 2012). This is an obvious revelation that Chinese consumers of Starbucks expect the taste of the coffee drinks and products of the brand to be customised based on how they define what a good tasting coffee is (Baker, 2012). This research has mainly elaborated the concepts related to the consumer behaviour and the various factors affecting it as illustrated by the consumer behaviour models. These factors are mainly categorised to be under personal, cultural, psychological, social or economic. In support for what the research seeks to pursue, this chapter as well looked into the various literatures illustrating to the consumer behaviours and attitudes of both Thai and Chinese consumers. These consumer attitudes are specifically directed towards the coffee industry through Starbucks, in the attempt of identifying the potential linkages.

# RELATED WORKS OR DISCUSSION

The purpose of eliciting specified conclusions based on how data is analysed, this section will further explain the research results and attempts how other supplied data will be integrated. These will make up as the answers to the research questions of the research, prior to the identification of the consumer attitudes and behaviour concepts that are known in literature. The results of the research indicated that more female respondents consider price of Starbucks products, although factors of atmosphere and environment, quality of product and brand reputation showed equal distribution regardless of the gender. Such response could indicate how females, regardless of their age, educational background, occupation or whether they are Thais or British have always looked into the price factor of coffee products. Apparently, this could illustrate two sides that may represent both the positive and negative connotations. For the purpose of discussion, females tend to be concerned on the price of coffee products, which might only purchase based on their allocated budget. This aspect drags the females' incomes and occupation and their capacities of Starbucks purchase while Focusing on the Thai consumers, there are differentiating factors that elaborate and could even explain their approach on purchasing Starbucks who they see as different from other coffee brands. This research has indeed further justified other similar research studies like James (2009), who regarded that most of the Starbucks customers in Thailand are wealthy. They are those who belong to the high-income individuals considering that the price of one Starbucks coffee is almost half the average daily income of ordinary Thais; or about £2.00 GBP out of £6.00 GBP average salary (James, 2009). This can also explain the expectations raised towards the quality of Starbucks products. However, this instigation is mainly undertaken for the sole purpose of justifying the connection between price and consumer attitudes. Hence, Starbucks was able to attract Thai consumers as reflected by the respondents of this research.

#### **METHODOLOGY**

In this lesson have provided methodology to approach the purposes. In terms of the appropriate numerical test, it has to concentrate on the total research design and performance (Pallant, 2010). Therefore, the study utilised the frequency to obtain the descriptive statistical for variable sections to illustrate the respondents attribute. There is one segment of a questionnaire to spit out the stats such as gender, age, highest education level, nationality, occupation and income in order to encourage the researcher knows to the sample background. Kolmogorov-Sminov test for the normality test has applied for the score dependent variant division. The results of research will be explained to tables and charts. For Inferential statistical refers to hypothesis test by frequency, independent T-test and Pearson relations that can search the correlation between dependent and independent variant. The hypothesis of this research is an attitudes and behaviours among Thai and British consumers towards Starbucks. To analyse ascriptions are shown the level of confident at 95 % and 5% tested that typical significant range is made at ≤0.05 (Coakes, and Steed, 2003).

#### RESULTS

This research was 396 samples in various genders, nationalities, age ranges, educations and incomes that there were respondents of the questionnaire as showed in table 1. First, the outcomes were from demographical participants that females had more pricing consideration than males. Then, age factor was related to different customer's quality attitudes. Whereas, various incomes were relevant to quality of product such higher incomes would expect more quality of goods. Moreover, genders had relation to frequency in purchasing as well as the results shown that nationalities differed related to consumer behaviours and product choices were affected to an individual's economics. Therefore, the cause of different economic condition and situation between Thai and Chinese customers, it made consumer behaviours of both countries differed. Likewise, Thai respondents purchased Starbucks products less than Chinese. Although, Chinese participants spent times on Starbucks shops were lower than Thai's. In term age, there were variety behaviours of buying and spending times on the product while, income factor was influenced to customer frequency purchasing. So the most influenced factor was the atmosphere and environment method that increased and improved the frequency in purchasing product such good attitudes towards quality of the product and raise demanding up.

Table 1:

Personal data	Number	Percent
Gender		
Male	185	47%
Female	211	53%
Age		
<20 years old	86	22%
20-30 years old	85	21%
31- 40 years old	196	50%
41 > years old	29	7%
National		
Thai	198	50%

Personal data	Number	Percent
Chinese	198	50%
Education		
High School	32	8%
Bachelor Degree	256	65%
Master degree and above	108	27%
Income		
< 10,000 B	12	2.50%
10,000 – 25,000 B	84	21%
25,000 – 40,000 B	287	73%
40,001 > B	13	3.50%

# **CONCLUSION AND FUTURE WORK**

This final suppositions about the conducted research study, prior to the methods undertaken in order to acquire the primary and secondary data. Fundamentally, the research seeks to identify the varying attitudes and behaviours factors of Thai and Chinese consumers of the famous coffee brand, Starbucks. Doing so constitutes essentiality on the marketing and advertising fields, which further reinstates how attitudes and behaviours influence the important components of a brand that further depict sales. Hence, the results indicated the significant relationship between the respondents' demographics, consumer behaviour and attitudes towards a certain coffee brand, regardless of their nationality or demographical nature. Each of these components can be broken down into more specific constituents that will further provide concepts and significant thoughts differentiating the Thai and Chinese Starbucks customers. Within the main concept presented in this research, the recommendations are directed towards the Starbucks Company and even other company managers in utilising the consumer attitudes and behaviours in a deep manner. This is better illustrated in the creation and establishment of strategies for the better marketing design.

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# CREATIVITY OF ORGANIZATION AFFECTING THE INTERIOR BUSINESS OPERATION

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#### **ABSTRACT**

The objective of this research was to study the meaning, significant and the creative idea of organization of the interior business operation. The benefit and creative application concept of organization in the interior business operation that from literature review of organization means the organization competency to create the valuable performance both products and services including the idea, finding procedure, working process and new solving problem method which is different and utilized better by co-working person in order to create the difference from competitor and able to build value-added for organization, significant creative idea of organization is the important to achievement of organization according to the knowledge, experience including integrated various information from the role of organization caused supporting, motivating and attracting through policy, strategy and procedure including the creating activities and context conditions of social and organization. Creating an atmosphere and working environment, working together as a team in order to all member levels to be able development their knowledge, ability and using their potential fully. The creative idea of organization such as the inside person composition which were comprised knowledge skill, specialized of technique skill, wisdom and specific competencies in operation and competencies in procedure relevant creative idea and caused really incentive for working. Outside person composition such as social environment which is that person is working, the benefit of organization creativities cause the organization can explore different thing new and utilized better before, having the ability to create valuable works both products and services including idea, exploration of process, procedure and new different solving problem method and utilized better before. Solving problem lead to build the organization to be able solving complex problem that there is new strategy development and push to change within organization to gain competitive advantage and growing continuously and sustainably

**Keyword:** Creative idea of organization, interior business

#### INTRODUCTION

Organization creativity was important that affecting to create innovation which was the key factor to increase competitiveness and cause the organization successful. Creative idea was be required to change from creative idea of personal level but covered corporate level including working environment of organization (Leigh, K. E., 2011) and organization creativity was more necessary for organization since tend to change rapidly and happen all the time including society, economy, population, and technology cause the big impact on the life style of people particular organization running business that faces violent business competition environment to respond customer's requirement including the result of technological change suddenly cause shortened life cycle of products and services which was the one of reason that affect the business of organization more susceptible to failure than the past

Even though many organizations operating business focuses organization creativity, it has barrier or restriction either from social or environment and culture. Vision free of organization clearly which the direction is organization going also it still does not know what has to do to hit the setting goal in addition still have barrier involving behavior and personal attitude including value with achievement and not accept the failure cause lack of challenging to do the new thing which extremely focus regulation and principle lack of flexibility cause do not dare to express the creative idea at corporate level related to huge number of relevant people who has ability, diversity of expertise caused obstacle; therefore, it is necessary to work together effectively to solve problem for organization and develop organization through better direction which organization has to change and seeking the guideline for managing organization for survival of organization competition in the business nowadays and the future intensify further

The creative factor of organization was the significant ability caused organization become the excellent and sustainability achievement. Creativity was the importance to society, economy and individual. Currently, it were been more attended consequently. In the part believed that creativity was limited in the art only afterward these belief was changed in the current. Many scholars believe that creativity was important foundation which was one thing importance of innovation management process as well as development the competency of human and competitiveness of nation in the globalization. Analytical unit of creativity were various level covered since individual, team, organization, nation, region and international or global (Donchanok Buenoy, 2016; therefore, it was necessary that organization were to adjust to find the guidance which was able to handle in the future. Creativity was important of organization caused organization were abilities to handle change and crisis occurred in order to create the organization's operation outstanding and difference from competitors included the innovation and novelty which was able to enhance value and competitiveness by affecting organization where can cope with rapid change in technology and society and it was the starting point that make business success and stainable then.

# 1. Creativity of organization

#### 1.2 Definition

Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993) gave the definition of creativity of organization meant creative new product, service, process or useful procedure by person who was working together in society complex system aligning with Sutipong Pongworn (2012) said that creativity was the new idea difference and useful than previous one and creative person tend to have question that were always searching for answers to new thing and Todsaporn Boonwachapai (2015) gave the definition of creativity of organization meant the ability of organization to create job (product and service including how to thing, process, procedure and how to solving problem) novelty, difference according to data, knowledge and various experience that integration based on society context. Working complexity and relationship during factors in all level of organization since the past till current caused the supporting, motivating, attracting, policy, strategy and work instruction included creating activities and society context condition and organization (working atmosphere and environment) for all member level to develop the knowledge, ability and

using their potential fully during action (interaction) of society occurred while working affected visibility of new opportunity and relationship that lead to the creation of innovative result happened together in organization. Creative will occur from knowledge and experience of each person that were accumulated knowledge and how much experience eventually these things will be pulled back to be used to solve problem and think of creative development. People who had learn more quiet had various experience will be able selection to use and find how to development and solving problems creative and perfect; therefore, learning together and exchange the opinion and idea together which was more proper way to develop the creative than working or thinking alone. Besides creativity of organization accept that was "creating value to new product and service which were the thinking process or procedure by person who works together in complex social system" (Woodman, Sawyer, & Griffin, 1993, p. 293 Refer to Puccio, G. J., & Cabra, J. F., 2010)

From the definition of creative of organization above cloud be summarized that creativity of organization meant organization capability to create valuable performance both product and service utilization included the idea, searching process, work instruction and new solving problem method that difference and useful than previous by person working together to create differentiation from competitors and ability to create value added for organization

#### 1.2 Signification

Creativity of organization was necessary to business operation for organization to be able to support change and solving complex problem occurred that was the organization capability to create performance both product and service including idea, searching process, work instruction and new solving problems, to create differentiation from competitors and ability to create value added for organization in order to get competitive advantage and growth continuously align with Wu, C. (2016). To study about leadership of entrepreneur, creativity of organization and productivity of company role of China. Study result found that creativity of organization affected the productivity of company and Zhe, R. (2011) studied about alignment of organizational learning strategy and creativity of organization: empirical study got the studying result found that creativity of organization had related to the operation within organization and according with Peerawut Sisisak (2016) studied causal relation of leadership changing creativity within an innovative organization affected operation of organization: Study the Small and Medium Enterprise found that creativity in organization and innovation had direct influence operation of SMEs

Summarize that creativity of organization was importance to organization's success accordance with knowledge, experience and various information to integrate from organization's role which were occurred from supporting, motivating, attracting, policy, strategy and work instruction included creating activities and conditions of social context and organization's role, creating atmosphere and working environment, team work for all member levels to be able to develop knowledge, ability and using their full potential

# 1.3 Benefits of creativity of organization

Creativity was the new idea that was different and better utilized which organization were creative that often seek good and useful ways for responding to customer aligned with demand changed rapidly and more varieties. Creativity of organization was necessary in operation to encourage employees to have creative skill to create self confidence in order to develop capability for creative thinking, stimulated the commitment to work, modern and using free time to benefit which lead to create organization's capability to solve complex problem, were to develop new strategy and driving to change within organization to get the competitive advantage and growth continuously and supporting the challenge to change of the world today

Creativity of organization was very useful for organization's operation which was the factor that organization focus as seen from ElMelegy, A. R., Mohiuddin, Q., Boronico, J., & Maasher, A. A. (2016) conducted the study on promoting creative environment: empirical study of architecture company in Saudi Arabia, the research studied the factor affecting the creativity of organization in architecture company in Saudi Arabia on the context t of Amabile Theory that result found that knowledge expansion and understood creative environment which was the factor affecting the creative thinking and Lai, K. S., Yusof, N. A., & Kamal, E. M. (2016) studied and analyzed the survey factor found that there were 4 cultural dimensions as 1). Behavior to support an innovation 2). Freedom 3). Working together as the team work and 4). Individualism. Research result regarded the behavior to support an innovation and working together as team work was the important part. These architecture company; moreover, the finding also revealed a lack of freedom and individualism within architecture company in Malaysia so strategy in the future should focus on promoting the freedom and individualism in architecture company to encourage innovation particular in context of developing countries

Summarized that creativity of organization was concept that beneficial to organization by thinking the new thing that difference and better utilized caused the organization capability to create the valuable performance both useful product and service included idea, process, work instruction and new solving problem method that difference and better utilized. However, business operation had to promote employee to have creative thinking skill to create self-confidence when developed capability for creative thinking, stimulated commitment to work, to be modern and used free time useful which led to create organization had capability to solve complex problem, had new strategy development and driving changed within organization to get competitive advantage and continuous and sustainable growth

#### 2. Creativity of organization character

Concept of creative character according to concept of Guilford, J.P. (1968) was the ability of brain in thinking in many direction many facet, wide thinking called Divergent thinking had 4 components were 1). Originality 2). Fluency 3). Flexibility and 4) Elaboration aligned with Apichart Nenphom (2016) summarized characteristic synthesis result or personal which had creativity, thinking dimension had the detail and component as 1). Originality was the capability of thinking that observation from strange and new ideas of answer differentiation from normal had unique, not redundant with idea from existing but the answer optimized to problem 2) Fluency was the ability in thinking that observation think that many ideas was thinking result from number of answers that received in a limited time 3). Flexibility was ability in thinking that observation from various answers in different ideas, types and directions, these had a wide view perspective, not limited to one particular aspect 4). Elaboration was the ability of thinking that observed from detail or process had explanation or adding onto ideas to original stimuli that had more detail and clear

Model of thinking creativity characteristic covered both social and philosophy that was necessary to individuals in production of creative work according to concept of Amabile, T.M.(2012) said the components of creative thinking theory consisted by 4 components which were necessary for creative response in which 3 components were person inside element such as 1). Domain-relevant skills included knowledge, expertized technical skills, wisdom and talents 2). Creativity-relevant processes and 3). Intrinsic task motivation another component was person outside element for instance social environment that person was working

Components of thinking creativity characteristic of Tosaporn Boonwacharapai (2015) developed multi-dimension element to support ability caused the creative thinking and service innovation in 6 areas which were Novel idea flow, Challenging work, Freedom of work, Proactive change, Continuous learning and Creative connection

Summarized that components of thinking creativity characteristic, person inside element and person outside element. Person inside element consisted the skill of knowledge, expertized technical skills, wisdom and specific competencies in operation, capability in process of creativity and intrinsic task motivation. Inside person element were social environment that person was working in addition creativity of organization might consist Novel idea flow, challenging work, freedom of work, proactive change, continuous learning and creative connection

# 3. Concept of applying to creativity of organization in interior design business operation.

Creativity of organization was component to increase capability of organization to maintain the competitive advantage (Oiszak, C.M., Bartus', T., Lorek, P., 2018) particular interior design business operation which was falling design to decorate various areas included decorative product design in building for example decorative area in the building, house, condominium, office, booth, restaurant, hotel, trade show area and exhibition, and various exhibitions included interior display in cabinet of department store also the area in the motor vehicle, passenger ship, aircraft, bus etc. Interior design business was the integration idea and knowledge of design, production, marketing and art mixed together both art and design, construction, technology and environment included marketing and customer's requirement to integrate to build and use as the objective in interior business operation by specifying the detail of components, layout arrangement including supervise the work of the interior technician as well (ThaisSMEsCenter, 2017); therefore, interior design business operation necessary had the person which had the creative thinking, unique and be cautious working, to be able taking various materials applying to design job properly and highest benefit also there had computer skill to apply with creative design job, self-discipline and understanding of business service, to be able working with other person and team work, good relationship with colleagues, vision, enthusiasm to develop ability and knowledge, having sourcing materials knowledge, to be able design interior correctly according to principles and customer's requirement based on safety and optimal price

Creative application was the factor affecting the organization success especially interior design business operation still had a good return and this was the job using the specialized skill. Running business could start with someone who was able of interior design by themselves and no needed to invest a huge amount for one time also in the future of business operation still had direction and could be growth together with real estate business which trend was growing more and more. However, the thing was important for this career to make profession successful and faster which was the creative thinking, experience and developed skill to be more distinctive than competitor who was interior design business accordance with Öztürk, G. B., Arditi, D., Günaydın, H. M., & Yitmen, İ. (2016) studied the corporate knowledge and performance of architectural design company in Turkey. The research result found that the learning scope in person level had positive effect on learning level. The project affected the learning level of company and Lang, J. C., & Lee, C. H. (2010) studied the atmosphere in organization by studying humor at work and creativity of organization which was becoming the interesting topic for manager which was necessary to understand more role of humor to work efficiency by studying the relation between humor and creativity or organization. Research result concerned that release of humor and controlling humor related to creativity of organization

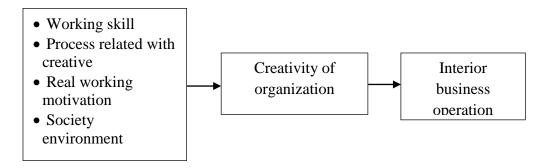


Illustration 1. Concept of applying to creativity of organization in interior design business operation.

Summarized that the creativity of organization had influence interior design business operation which still was growth to align with real estate business and there was growing trend continuously; however, interior design business operation was necessary to develop themselves to be creative organization according to creative person, knowledge skill, specialized design skill, wisdom and specific competencies in operation, ability in creativity process and intrinsic task motivation, unique, to be cautious working, social environment to support creativity thinking for interior design business operation which was idea integration and knowledge of design, production, marketing and art mixed together both art and design, construction, technology and environment included marketing and customer's requirement integration caused business operation successful in which the organization created distinctive from competitor and created value added to organization led to competitive advantage and continuous and sustainable growth

#### **CONCLUSION**

This article had literature review related the definition, significance and characteristic of organization creativity in term of benefit creativity of organization application in interior design business operation for person who was interested understood in various dimension or creativity of organization affected entrepreneur took this creativity of organization to apply for operation efficiency and to create a sustainable competitive advantage

Creativity of organization meant capability of organization to create valuable performance both utilized product and service including the idea, finding process, work instruction and new solving problem method and better utilized by person who worked together with, to create distinctive from competitors and to be able creating value added, the importance of organization creativity had importance to organization successful accordance with knowledge, experience and various information to integrate from role of organization caused supporting, motivating, attracting by policy, strategy and work instruction along with creating activities and role of social and organization, creating atmosphere, working environment, team work together for member all levels who could develop knowledge, ability and their full potential. Creativity characteristic of organization consisted 2 main components as inside person component which was consisted by knowledge skill, specialized of technique skill, wisdom and specific competencies in operation and competencies in procedure relevant creative idea and caused really incentive for working. Outside person composition such as social environment which was that person was working; moreover, it might have the characteristic composition as novel idea flow, challenging work, freedom of work, proactive change, continuous learning and creative connection in term of benefit of creativity of organization caused organization to be able searching the new thing difference

and using better utilized and to create valuable performance both utilized product and service and idea, process, procedure and new solving problem method differencing and using better utilized to solve problem; therefore, the business operation had to promote the employees to have creative skill for create self-confidence when developed capacity for creative thinking to motivate the enthusiasm working, to be modern, and using free time to benefit led to creation of organization capable of solving complex problem, developed new strategies and driving change in organization for getting competitive advantage continuous and sustainable growth

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# THE QUALITY SERVCE FACTOR BETWEEN THAI AND LOAS LSP

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#### **ABSTRACT**

This research objectives were to evaluate the service quality of Logistics Service Providers (LSPs) in Laos. The samples of this research were 6 Thai LSPs, 18 Thai Users, 6 Laos LSPs and 12 Laos Users. The data collection was questionnaires with the analysis of service quality (SERVQAUL). There were 5 dimensions, namely, tangibility, reliability, responsiveness, assurance and empathy. The gaps between the current service quality perceived and the expectation of the users was explained and illustrated. It was found that Thai LSPs were better than Laos LSPs in namely, reliability, emphaty and assurance as Laos LSPs were better than Thai LSPs in responsiveness. It showed that Thai LSPs has to improve the relationships and better service to compete with Laos LSPs although Thai LSP is selected in the first priority in Thai-Laos trading.

**Keywords:** Service quality / SERVQUAL / Laos/ Thai

#### **INTRODUCTION**

#### 1.1 History and the paint point

ASEAN Economic Community: AEC had the official opening schedule in 2015 from the agreement from all 10 member countries for instance Thailand, Laos, Malaysia, Indonesia, Philippines, Singapore, Vietnam, Laos, Cambodia, and Bunnie. All of this for ASEAN has free movement of product, service, capital, investment and skill labor especially free trade of services which build both the opportunities and barriers to entrepreneurs in Thailand inevitably; therefore, Thais entrepreneurs are great readiness to analyze the competitiveness with neighboring countries or create opportunities of cooperating in order to continue increased economic value next. Laos is the one of ASEAN member countries and it is the neighboring countries of Thailand while Thailand is also the neighboring countries of Laos as well. Economic in Laos currently has a growth every year where has plentifully natural resource included lower labor rate cause attracting foreigner turning to invest more.

Independent moving of logistic service is the one of consequence effected opening ASEAN Economic Community (AEC) so logistic entrepreneurs in Thailand and Laos need to develop service to be good in order to respond the customers requirement at the same time it should coordinate to build up the next work for expanding market to other countries which is optimal strategy for development

#### **OBJECTIVES**

- 1. To evaluate quality of logistic service provider (LSP) of Thailand and Laos
- 2. To evaluate the expectation of user in each dimension
- 3. To be competency comparison guideline and consider the difference in service quality by using the simulation of SERVQUAL which is service quality evaluation

#### LITERATURE REVIEW

#### 1. Laos

Laos is a small landlocked country with an area of 236,800 square kilometers, two-third of which is mountainous (northern); thus, its geographic circumstances constrain both the quantity and quality of agriculture and cause difficulties to the development of trade, social infrastructure, and transportation and communication links. Laos is located in the centre of energetic and prospering regions of Southeast Asia that is endowed with huge potential to support a strategic resource base, and shares borders with five neighboring countries: China, Cambodia, Vietnam, Thailand, and Laos. The country is divided into 3 main regions: northern, central, and southern regions. In 2009, the total population of Laos is 6.26 million, major of those live in valleys of the Mekong River and its tributaries, and population density is only 27 per sq. km. Vientiane is the capital and largest city, has about 799,000 residents.

After becoming an independent in 1975, then Laos established the controls over the economy through the centralized fiscal and socialist government until 1985. During that period, the government had seen that the performance of economy was unable to reach the expected goals. Economic management was weak due to the lack of skilled labors, and there was some external assistance, but many projects were not completed at a satisfactory level. In 1986, the new economic reform was initiated, aimed to move expansion from a central-planned economy to market-oriented under NEMs which turned from socialist economic management system into market oriented system. The two basic political goals including:

- 1) Open Market policy and
- 2) Introduction of Market economic principles.

Laos has pursued significant economic and institutional reforms aiming at improving social and economic well-being of population by consistently building itself a market-orientated economic. Laos has achieved remarkable economic growth, privatization of former stateowned enterprises, and macroeconomic stability. In addition, it has witnessed a significant rise in public and private investment and improvement of economic activities both regional and global economic cooperation. Those things were contributed to annual average growth rates of over 6 percent per annum from 1990 to 2009 (World Bank, 2011). Moreover, Laos has invited foreign investors and accepted assistance from various governments and organizations around the world, all of these factors are directly effect on economic and regional development of Laos.

# 2. Logistics Center in Laos

Laos, a land-locked country, is centrally located in the GMS within South-East Asia. It uses sea ports in Thailand and Vietnam for export and import of goods. One of the routes of the Singapore-Kunming rail project as well as the East-West GMS corridor linking Vietnam to Thailand and Laos also passes through Laos. Thus it has a potential to offer much needed land transport connectivity to China and Vietnam. Laos aspire to be seen as a "land-linked" rather than "land-locked" country with a vision to be a regional logistics hub in

GMS. Laos total import and export was US \$ 1,092 million (equivalent to 1.67 million tons) and US \$ 2,430 million (equivalent to 1.963 million tons) in 2009. Figure 1 shows the steady growth of volume of foreign trade with its neighbors. It shows that more than 80% of its trade is with Thailand, followed by Vietnam with 13% and China with 8%. Interestingly the volume of trade with southern neighbour Cambodia is very low. Therefore, transport connection to and from Thailand is very important for Laos. Thailand is preferred to Vietnam as main transit route for Laos's imports and exports. Laos is well connected by roads with Thailand. Two bridges across Mekong have already been constructed at Thanalaeng and Savannakhet. Currently construction of other two Mekong bridges are progressing one at Huayxai and Thakhek. National Highway-13 (Asian Highway-12) is the backbone of road transport. In addition to the roads there is one railway connection to Thanalaeng from Thailand. There are also plans to improve railway connectivity and feasibility studies of connection from Boten, China-Vientiane, Vienatine-Thakhek-Vietnam border are progressing. During data collection in Laos it was learnt the feasibility study of Boten Vientiane was currently being reviewed. It was estimated that the construction cost would be high due to the mountainous topography and the need construct many high bridges and tunnels. Vientiane-Thakhek rail route is also in pipeline for development. It is expected that Laos railway network will expand in near future. The Mekong River is also used for water transport. The current mode share is 80% by road and 20% by water transport. ADB has estimated the freight demand for GMS 6.3 million tons for 2014 and 23.8 million tons for 2025.

Laos logistics performance index (LPI) is 2.46 which is better than its neighbours Laos (2.33) and Cambodia (2.37) while China (3.49), Thailand (3.29) and Vietnam (2.96) 14 have higher LPI. If we compare with other landlocked countries it is better than that of Nepal (2.2), Mongolia (2.25), Bhutan (2.38) and Afghanistan (2.24). However Kazakhstan (2.83 have higher LPI than Laos.

Improvement of logistics system and transport connectivity would be the core activity to materialize the vision of being a land-linked country. Laos current development plan forecast a 24 7% growth of freight that will reach 32 million tons and 2.2 billion ton-Km by 2015 and focus on development of special economic zones already established in Boten, Bokeo and Savannakhet. Thailand also has railway capacity enhancement plan that includes double tracking to Nongkhai, track rehabilitation and development of inland container depots in Nongkhai and Ubon Ratchathani near border with Laos. Laos thus can use these facilities as well as the Lat 2 Krabang ICD near Bangkok which is connected by railway to Laem Chabang port.

#### 3. Logistics Service Providers (LSPs)

Logistics Services Providers.

To the general public, reading the word Logistics written on the side of a truck means that the 'logistics industry' is only concerned with trucks. This is far from the truth. The more descriptive term is 'logistics services industry', which differentiates services from the logistics activities of shippers.

This term will encompass a range of businesses that provide specialist knowledge and capability for brand owning and product companies (shippers). The collective term which has evolved to cover all services supplied for the supply chains of shippers is Logistics Service Provider (LSP).

Although many services can be supplied by LSPs, there are vital roles that should remain within a shipper:

- development of the organisation's Supply Network strategy
- improving the organisation's Supply Network, which includes modelling and optimisation studies

Roles that are recommended to remain within a shipper are:

• negotiating and contracting with suppliers of goods and servicesmanagement of relationships and contracts with LSPs

Table 1: LSPs within shippers Supply Network

Goods Movement Service	Materials Businesses Service	Professional Services
Third party logistics (3PL)	Lead logistics provider	Financial services for
Movement Items and storage	(4PL). Consolidates and	shippers' supply chains
services	optimizes logistics services	
	for a shipper	
Transport services	Freight managed services	Freight insurance and risk
	consolidation, chartering and	management advice
	brokering of transport	
Freight forwarders and	Event logistics services for	International trade legal
custom brokers	large public events	services
Logistics infrastructure	Manufacturing services	Technology Services
manager and/or operator	providers (MSP)	
Material handling support	Logistics assets support	Education and training
services	including maintenance of	services
	logistics equipment	
	Procurement services	Government departments and
		agencies. Develop policy and
		regulations for logistics
		services

Resource: Roger Oakden (2018)

The table 1 above identifies many types of LSP and the range of services provided to shippers. These have been divided into three broad groups: Goods Movement services; Materials Businesses services and Professional services:

#### **METHODOLOGY**

The research procedure is divided by 6 steps as follow;

Step 1: Study, review and collected secondary data of Thailand and Laos from academy textbook, content, thesis and related report

Step 2: Create questionnaire is used the tool to collect data from sampling group. The questionnaire was used the collected data which had 2 models as model 1 used research data of logistic service provider and model 2 used the research data of logistic service user. The questionnaire was investigated by one teacher from university and 2 logistics specialists from industry sector

Step 3: Go to location to collect primary data from sampling group in Thailand and Loas where is in Nongkai province

Step 4: Collection, record data from going to location to collect data

Step 5: Analyze data from T-Test and Mean

Step 6 : Summarize and propose research result

#### Population and sampling group

- 1. Population such as logistics service provider sector and industries sector who use logistic service
- 2. Sampling group in this research was collected from other region in Thailand and SEZs through independent random sampling group getting cooperation from the Thai Business Association in Laos. The sampling group in this research was divided by;

Thai: 6 Logistic Service Providers (LSPs)

18 logistic service users

Laos: 6 Logistic Service Providers (LSPs)

12 logistic service users

#### **Research Tools**

Tool was used to evaluate service quality SERVQUAL to be the tools developed by Parasuraman Ziethaml and Berry (1988). There was the objective to measure service efficiency which was widely used in varietal industries for example financial institution transportation service or hospital etc. to provide appropriate service quality measurement and align with logistic business so questionnaire was investigated by specialist from industry sector in term of education designed service quality measurement for logistic industry for 5 dimension referred to SERVQUAL as follow:

- 1. Tangible physical is the physical feature to be able seeing such as utilities, tool, equipment and human who serve logistic service provider able seeing before using service
- 2. Reliability is capability to serve service committed with customer on contract which service is correct, suitable and consistency of service such as general service, documentation, time and safety etc.
- 3. Responsiveness is readiness feature and willing and able to respond the customer requirement promptly
- 4. Create assurance to customer of service provider has to skill, ability and service manner which are the trust and assurance to customer
- 5. Empathy is the ability to take care, helpfulness, paying attention customer requirement which is different for each customer through 2 types of questionnaire such as

#### **RESULT**

#### 1. Confidence test questionnaire

This research analyzed statistics; however, data analytic from reliability test referred to Cronbach's Alpha equal 0.835 shown that questionnaire in this research had the reliability and to be able using in this research

#### 2. Service quality from the view of service user from Thailand and Laos

The proportion of Thailand and Laos service user were collected data. It found that shape of Thailand service users were mostly middle and small size while going to collect data in Laos found that large service user needed to develop logistic mostly.

The value of Sig.(2tailed) for 5 dimensions found that

Dimension 1. Tangible physical which wa the Thai service provider has higher quality than Laos service provider significantly presented that Thai service provider was more convenience, person and tools completely and there was effectiveness better than Laos service provider

Dimension 2. Reliability not difference were found service quality average in reliability dimesion between Thailand and Laos logistic service provider.

Dimension 3. Responsiveness found that Thai and Loas logistics service provider had the competency to serve as same as the service.

Dimension 4. Assurance found that it was significantly different to service quality by Thailand had higher service quality than Laos shown that Thailand logistic service provider could create service assurance to customer suitably

Dimension 5. Empathy not affected service quality of service user and not difference the confidence average level

Summarize that service quality in view of service user in both countries found that dimension 1. Physical tangible and dimension 4. Assurance were significant different in service quality unless consideration average value in all dimensions found that the Thai average value higher than Laos in all dimension seem that Thai logistics service provider had better service quality than Laos in view of service user shown on Table 2

Table 2 Perception average of service user in Thailand and Laos

SERVQUAL	Country	Mean	Std	t	Sig.	Service
			Deviation		(2tailed)	Level
Tangible	Thailand	3.69	0.766			High
	Laos	2.62	0.796	3.252	0.002	Medium
Reliability	Thailand	3.64	0.753			High
	Laos	3.32	0.845	1.25	0.20	Medium
Responsiveness	Thailand	3.55	0.879			High
	Laos	3.53	0.850	1.638	0.104	High
Assurance	Thailand	3.63	0.832			High
	Laos	2.97	1.008	2.31	0.015	Medium
Empathy	Thailand	3.42	1.394			High
	Laos	3.02	1.023	1.242	0.153	Medium

## **DISCUSSION AND SUMMARY**

Different analysis during service quality in view of statistical service user found that dimension which was significant different to service quality was dimension 1; Physical tangible and dimension 4; Assurance. Research result presented the efficiency of Thailand and Laos service providers were different in two dimension obviously as Thailand service provider had better service level than Laos also Thailand had higher average level that Laos in all dimensions proposed Thailand service provider had better service quality service than Laos all dimension when considered together with potential

Logistic was assessed Thailand logistic scorecard service provider who had higher than Laos logistic service provider in all dimensions caused supporting Thialand logistic service provider to respond customer requirement better than Laos logistic service provide; beside, when consider LPI (Logistics Performance Index) value reported by World Bank in 2012 seem that average score of Thailand was higher Laos in all factors obviously

From the perception of Thailand service user found that lowest service level received from service provider so Thailand service provider should improve in term of physical feature and response consumer requirement or service user presented that physical feature in the eyes of users such as utilities, tools, equipment and human who were inadequate efficiency to customers expectation same as respond customer requirement that Thailand service provider could not serve as customers expectation for instance ordering process, easy

and fast service in term of document, fast to respond customers complain etc. Included improvement of information technology management and information technology which were factors in logistic activities so logistic service provider should develop and apply using information technology in part of supply chain and logistics for example ERP, CRM, TMS, Barcode system etc. in organization due to help logistics activities easiness, synchronize data during delivery person and customer and to be planning tool for resource in supply chain getting most benefit

For opening investment market in Laos logistic industry considered as opportunity of Thailand logistic entrepreneur because research result indicated Thailand service quality was better than Laos in all parts when considered each of dimension found that service level of Laos users received from Laos service provider was least which was customer reliability that was closely service level of taking care while Thailand service provide had quite high efficiency in 2 dimensions which would benefit the investment in logistic industry in Laos. Furthermore, going to location for in depth interview logistic service provider and logistic specialist in Laos still found that abilities to create next work during Thailand and Laos logistic service provider due to Laos was the raw material sources such as wood product, mineral which needed to transport through Thailand to other foreign countries. It therefore was a joint opportunity of both countries to create future trading cooperation

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#### THE SOCIAL MEDIA IMPACT ON IENTITY CONSTRUCTION

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#### **ABSTRACT**

The social media gained importance over the last decades and is now part of people's everyday life and has a deeper impact on the society as to the traditional media. Social media dominates user's attention for roughly two hours a day. Thus, the impact of the social media on identity construction has been under investigation for more than a decade. Consequently, the idea of this research has been because the social media and business in directly and indirectly related with each other. The objectives of this research are to try to develop and understand the identity construction among young adults. Therefore, this research might be useful for many companies to develop the strategy when presenting the new product to target the customer. Epistemology will be applied in term of constituting acceptable knowledge because the collecting data is focusing on generalizations and causality group of people. In order to successfully identify and clearly understand this research, quantitative method is the most appropriate selection in this paper. There are two types of research approaching to fulfil the research's requirement which are inductive and deductive. The results will be presented in forms of descriptive statistics to describe the frequency, and proposed hypothesis to address the relationship between two factors or variables. This paper explores practical aspects of identity construction, relating to issues virtual communities and social media. It also analyzes the probable reasons that individuals feel the need to create a virtual identity for themselves as well as "the spiral of transformation", that is, the creation period goes ahead of the internet to reach the real life. This study also aims at concentrating on the virtual communities appearing in the social networks while questioning their social and cultural qualities and values.

Keywords: identity construction, social media, social networking

#### **INTRODUCTION**

Social media, first developed in the western-world (Qualman, 2010) is a fast developing technology (Tuckett & Turner, 2016). A proof to this rapid expansion is a study on the evolution of its use among American adults between 2005 and 2015 by Perrin (2015). Indeed, it reveals that in 2015, the number of American adults using networking sites amounted to 65 percent, representing almost ten times the percentage observed in 2005. Nowadays social media is popular all over the world, even in third-world countries (Qualman, 2010). "Billions of people create trillions of connection through social media each day" (Hansen, Shneiderman, & A.Smith, 2010). Social media is indeed highly used, and represents in today's modern society, an important source of information (Michaelidou, Siamagka, & Christodoulides, 2011).

Technological convergence and digitization, which allow traditional media to be carried to new types of media, have allowed audio, data and mass communication to take place in the same channel. Due to the internet making mutual data communication possible at the level of web 2.0, the concept of social media has emerged. With the development of

social media, circulation of information and news has taken on a structure that should be considered carefully given that its speed and dimensions are quite novel. Social media allows its users to establish contact with publicly known or unknown users to share a content, which the user likes, with other users. However, it should be kept in mind that other users can see information shared via social media. Technological developments that cause the current age to be named as the information age have also led to improvements in data transfer, information sharing and information acquisition processes. With online platforms, mobile communication instruments, cameras, video talk and so forth, and the fact that both electronic systems and interactive systems meet with users have added a new dimension to communication and interaction.

The impact of the social media on identity construction has been under investigation for more than a decade. Social media dominates user's attention for roughly two hours a day (Arroyo-Johnson & Mincey, 2016). One of the reason why people are likely to use the social media is because it is the easiest way to keep up to date in the changing of the world. From this, it can be shown that social media become widely used. The number of people who are using social media such as Facebook, Instagram, and Twitter is significantly increasing and becoming a huge part of their culture. Several past research studies have investigated the impact of social media by exploring the perversion of online identity (Pelet,Ettis & Cowart, 2017). It cannot be denied that the influence of the social media can shape youth violence by changing the receiver's attitudes. The result suggested that young adult try to adjust themselves to the trend. Therefore, many companies can use the endless opportunities to manipulate and influence the audience with unconscious (Dong, Liang & He, 2017).

To accomplish the research's objectives, this research will be collected the data from both primary and secondary sources. Primary sources provide the information directly from the evidence or original research which based from the research or people to the particular time or event. It can be written or non-written such as interview, case study or photograph. In this study, survey method will be using though the research questions that are provided for college students. Furthermore, the criteria can be grouped into Asian and European students. These two groups have been chosen because there are many difference in term of culture. Secondary source is the information that has describe, analyze, and evaluate from primary source. It is one more step from the primary source. Secondary source will be collect information from the primary source information to increase the effectively of delivery to the audience. Textbooks, articles, and research papers will be using in this study to contribute information to support the subject. The objectives of this research are to try to develop and understand the identity construction among young adults. Therefore, this research might be useful for many companies to develop the strategy when presenting the new product to target the customer. Inaddition, the research questions are (1) what extend do social media has an effect on young adult? (2) What are the key challenge factors that influence on identity construction form social media? And (3) How company uses social media in the efficient way? This paper' structure consists of the literature review in Section 2, methodology used in this research in Section 3, data analysis in Section 4, followed by the conclusions and future research in Section 5.

#### LITERATURE REVIEW

#### 2. 1 The action of social media

Social media refers to an instrument used to communicate in the wide range of internet-based and electronic devices which produce the connection between people to people, easier and faster than the past. In addition, according to Winchester, contribution and

feedback were encouraged by social media which has rarely barrier to access by the audience (Winchester,2008). The creation of social media was brought up in 1997 with the propose of making friendships with a few group of people (Hale, 2015). However, the growing of social media reached the peak when the internet widespread to everywhere then the introducing of the Facebook and Twitter have taken in the social media.

The purpose of social media has changed from only making a new friend or setting the group of communication to touch every part of human being (Winchester,2008). Likewise, Harrington (2016) believes that the business cannot live without social media because it is an essential component which affects the way organization runs, all industries should learn and step ahead from this trend (Harrington, 2016). Moreover, according to Karadkar(2015), he believes that today's world is a global village because none of a barrier can avoid the flow of information and knowledge. It also illuminates the live of other people around the world and spread the knowledge internationally which resulted in global citizen (Mcluhan, 2011).

Social communities are communication platforms where people share online their common tendencies with acquaintances and interact with their acquaintances. Social communities allow people to create a profile and share their own photographs and events with their friends and to follow profiles and events of their friends (Calik, 2010). "Rapid development experienced in communication technologies brings every culture of the world closer each other. As a result of this, interaction of every culture of the world with other culture has increased" (Karacor,2009). It can be said that social networks will become a form of media in the future. It has been estimated that in the face of ease of content selection and production of social media, traditional media cannot stand in the long term, although it should persist in the short and medium term. Although social media has unique rules, it is a fact that its deep-rooted principles have not yet been established. It can be thought that in the next time periods, at least in the medium term, it will undergo fundamental changes. With these changes, there are sufficient reasons to believe that social media, which is fully developed in terms of new income sources and sourcing, will be more powerful against the traditional media and will reshape all communication channels.

#### 2.2 Social media and identity construction

The identity construction of human has changed because of the influencing of the environment around them. Human cannot live alone since human being are social animals, their live depend on other humans (Guastella et al., 2010). Constructing a community group contains several reasons such as, a familiarity, and similarity by comparing his or her identity with others. Because of the creating of the community between the human themselves, social group is the new action to help members stay connect to other members by interacting and exchanging their opinions or ideas. Likewise, human prefer to follow the path from their community and use the social networking as the connection to make friends and satisfy social needs (Karadkar, 2015). The study of psychology group shows that the power of grouping can wrap the decision-making and make incredibly powerful effect among the members of group (Dean, 2007). Furthermore, he also believes that grouping can destroy creativity and change human behaviour. So, it seems that social media plays as a significant factor which can form the group of people and change their behaviour to make them belong with their group.

The study of "Social Media and the Problem of Identity Construction" by Kara Chiuchiarelli (2011) believes that children and adults can lose their own identity information and become the global identity by using social media. She also suggests that using social media can portray the user to fit with those group. In addition, the study of 'Does social media affect decision making' shows that more than 50% of travelers used social media to

share their experiences when they received positive influenced (Sema, 2013). From this, the content sharing and storytelling of social media has been changing from marketing channel to experience channel.

#### 2.3 Social media and Organization

Social media is one of the most considerable technology both inside and outside company boundaries which can improve the way people collaborate, communicate, consume, and create positive effect in many areas. There are numerous persuasion techniques for company that can influence consumer purchasing decision. Using the appropriate way can be the most complicated part to make a decision because the collected data shows that 62% of interviewees believe that social media have no influence at all (Redsicker, 2014). Moreover, in 2018, the result shows that the highest number of users is used to connect with friends and family while only 29% is used to follow trend and product information. However, the uses can be affected without their awareness and become from customer to marketer by presenting and sharing product and services based on their preferences (Praet, 2018).

#### 2.4 The limitation of social media

It is no doubt that human accepts huge advantages from social media in several ways, marketers also communicate with customer more flexible, potent and inexpensive. In contrast, Kaiser admits that although this tools can serve large number of people with inexpensive costs, the level of engaging still be a question because social media interact with the large sum not the personal touch (Schantl et al., 2013). Likewise, McDonald also agrees that many organizations use social media by focusing an extension of their advertisement by lacking of engaging with consumers (McDonald, 2016). Comparing the type of communication between social media and face to face meeting seem to be informal and formal communication respectively. Face to face communication is more reliable and acceptable than other kinds of communication and collaboration styles because both side of communicators can learn more on body language (McDonalds, 2016). Obviously, social media can reach massive number of audience because it can influence user friends and participate in their activities. Nonetheless, Christopher Wong, CEO of Klarity explained that sometime a high number of followers and participants in social media dose not related to true brand enhancement. In contrast, shares and comments are more powerful way to measure the level of successful. By the same token, several organizations and companies consider social media as a threat because it is impossible to be controlled. Because social media only play as a median for transforming the message without any filter so when bad experience has been shared, it is directly affected to their reputation and loss of revenue.

#### RESEARCH METHODOLOGY

Epistemology will be applied in term of constituting acceptable knowledge because the collecting data is focusing on generalizations and causality group of people. In order to successfully identify and clearly understand this research, quantitative and qualitative methods are appropriate selected in this research. Therefore, this research strongly agree that the beneficial aspect of quantitative method far outweigh the detrimental aspect of them. However, sometime the data collection method such as questionnaires and survey can be categorized to both qualitative and quantitative method by depending on the question.

## 3.1 Research Design

To access the high quality of information, this research will be designed to use mix program of question because some part of the question is 'Close Ended Question'.

Meanwhile, this research believes that forcing the interviewees by setting the set of answers might not be synchronized with the reality. So, the research also using the positive effects of 'Open Ended Question' to gather the complete data based on the preference of respondent. Thus, all of the methods that have been mentioned above will be applied to enhance the understanding the impact of social media on identity construction of young adults.

- 3.1.1 Data collection: to accomplish the research's objective, this research will be collected the data from both of primary and secondary source. A survey strategy is popular and associated with not only deductive approach but also be a part of business and management research. There are three main methods of collecting survey data which are face-to-face interviews, telephone interviews and questionnaires.
- 3.1.2 Sampling: because of the limitation time of the research, availability or convenience sampling is the easiest method of recruiting the data comparing to other sampling method which will be approached to alleviate short duration of time. Convenience sampling which could be the suitable option in certain situation will be used for any participants who are convenient of find to gain initial primary data.

#### 3.2 Research Approach

There are two types of research approaching to fulfil the research's requirement which are inductive and deductive. Based on the result, a deductive argument cannot be affected by the new premise, while new premises can be impacted to the inductive argument. The research approach is directly related to the research method so selecting the appropriate approach should be concerned. However, according to Flick (2009) the data is flexible, there is no peremptory rule for the researcher to make a decision (Flick, 2009). Therefore, a deductive approach will be applied to this research which the data will be collected by a survey (surveys or questionnaires) then analyze the keyword or highlighted content to be suitable with theoretical concepts. After collecting the result then it will be compared with the theory and make the decision between confirm or disconfirm the hypothesis. Two filter question were applied to classify that the respondents will be grouped separately. The process of collecting the data will focus on the action of respondent by comparing his or her action with their previous action in the different environment. Furthermore, finding the factors for those people who have changed their behaviour and then generate the data to analyze with the exist theory. Therefore, the argument of this information will be shown in term of the agree and disagree between result and exist theory.

#### **RESULTS AND FINDINGS**

As mentioned previously, a mix method has been approached. Therefore, after the data has been collected, The data is conducted to analyze which helps the researcher to interpret and analyze in the most accurate and appropriate way. The results will be presented in forms of descriptive statistics to describe the frequency, and proposed hypothesis to address the relationship between two factors or variables. Finally, the comparison between analyzed results and other researcher on the literature review.

# 4.1 Descriptive analysis

According to the received 350 surveys, 53 % respondents are female. Meanwhile, 47% respondents are male which is slightly lower than number of female. In term of nationality, the biggest proportion was in Asian. The frequency of using social media, One-third of all respondents have accessed to social media more than 20 times. Intensely, approximately 20% are the group of people who have spent more than 4 hours on a social media which was the longest times comparing to other. There are five activities of using

social media which all of the activities have the same factor which are respondents, minimum, maximum and range value. The result showed that communicating and entertaining activities are the most activity to participate. While purchasing online is the lowest activity that people involved.

Moreover, the collected data has been classifying six effects of using social media and representing in terms of agreement. All of the effect have respondent who has strongly agree and strongly disagree as it can be seen from minimum (0) and maximum (3). The indicator is shown from the results that the mean value of affecting to perspective and behavior is 1.68 which is the highest number comparing to other factor. While, the mean value of decreasing self-identity caused of social media is the lowest values which means social media has low effect to their self-identity. On the same token, the value of Std. deviation of self-identity which is 0.913 also shows that there is a higher disparity within the data set. In contrast, the Std. deviation value of expressing idea based on like or obsess is more homogenous than other data set.

In terms of business, the result illustrates that the most effective of social media is to create awareness of products or service. Likewise, the mean value of using social media as a source of information is almost the same comparing to the Mean value of awareness. Whereas, the influencing of famous people or celebrities has the lowest number. Thus, it can be explained that famous

## 4.2 Appropriateness of the proposed hypotheses

A hypothesis has been divided to null hypothesis and alternative or experimental hypothesis which both of statement will be used to describe a circumstance of suitable statement based on the sample data.

- 4.2.1 One-way ANOVA: "Whether people who has the different nationalities (continents) would consider themselves being able to effect form using social media" according to the statement, there are three unrelated group of independent variables which are Asian, European and Other for analyzing. The research desires to demonstrate the relationship among these group by focusing on the average value. Thus, the results of ANOVA testing, the significant value is .116 which much higher comparing to the level of significant or p-value. It means that Three continents have no significant difference in the level of affecting from social media with 0.116 sig.
- 4.2.2 Independent sample T-test: the reason of implementing independent sample T-Test or unpaired t-test is to determine the relationship between two groups of data. The independent sample T-test is helping researcher to compare and understand the assumption of normality by targeting the Mean value of unrelated group and assuming that the Mean value of each group are difference because of independent variable. "Whether people who is female or male are feeling the same degree of affecting on their perspective and behaviour by using social media" accordint to this statement, the result found that the gender difference cannot affect to their perspective and behaviour.
- 4.2.3 Linear regression: (1) "Whether people who feel comfortable with Anonymous status would have a higher intention to share and participate the content that they like or obsess to social media". (2) "Whether people who feel comfortable with Anonymous status would have a higher intention to share and participate the content that they dislike or offense to social media". From these statements and results presented that there is a significant relationship between the degree of feeling comfortable with anonymous status and participating the disliked contents. Comparing the result of both claims showed that both of them have a significant relationship between two variables. However, the increasing of anonymous level has had a positive effect on liked or obsessed more than on disliked.

#### CONCLUSION AND DISCUSSIONS

Results will be explained in the discussion section to clarify the understanding of reader. The consistency between previous researches on the role of social media on identity construction will be used to compare with the results which have analyzed in form of descriptive and hypothesis analysis.

Research question #1: To what extend do social media has an effect on young adults: the result show that all respondents are using social media on their daily life which majority of them using it more than 20 time in a day. Average time of 1 to 4 hours are the highest time of using social media research from all respondents. This results relevant information from Alder research that roughly 2 hours of people will be taken caused of social media (Alder, 2017). Furthermore, the result shows the increasing of opportunities for social media and behaviour change theory that social website can affect the human behaviour and individual perspective (St John, 2011). The result of the test from the relationship between Anonymous status and participating on liked content, shows that people who have a higher degree of felling comfortable with Anonymous status, the level of sharing liked or obsess content will be increased.

Research question #2: What are the key challenge factor that influence on identity construction from social media? : the result showed that there is no significant difference on three difference continents with the significant value is .116. The outcome has supported Furedi ideas who suggests that people around the world have been shaped by social media (Furedi, 2014). Moreover, it also provides a backing of Global village that people in difference areas. Intensely, Asian has significantly impacted from social media more than other continent. However, it can be concluded that the level of affecting from social among three groups is not significantly difference. Furthermore, two groups have slightly difference value of Mean in all reasons of using social media. The Mean value shown that the frequency of using social media between 25-35 and 18-24 years old tend to identical.

Research question 3#: How company uses social media in the efficient way? : according to the result, using social media for communicating reason has the highest value of Mean which has consistency with Redsicker who stated that the main important of using social is communicating with friends and family (Redsicker,2014). Nevertheless, the third research question attempt to find the advantage of using social media by using in the proper way. Raising awareness of product and service has been revealed that is the most effective of using social media. Subsequently, using social media before making a decision which means the scale of using social media as a source of information have the scale between agree and strongly agree. However, the mean value of purchasing product caused of famous people which much lower than other reasons. Lastly, approximately two-third of customers give precedence on rating and review for making decision which also going in the same way as result (Nielsen, 2011). Another influential factor of decision making is friend, the average score of people who affected by friends or followed people on social media is likely to agree with.

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# SELF SERVICE TECHNOLOGY READINESS, CONVENIENCE, EXPENSE REDUCTION AFFECTING FACTORS ADOPTION OF GOVERNMENT PUBLIC SERVICE INNOVATION CASE STUDY: VEHICLE ANNUAL TAX SERVICE FOR DEPARTMENT OF LAND TRANSPORT

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#### **ABSTRACT**

The purpose of this research was to analyse adoption of Government Public Service Innovation in Thailand by using diffusion of innovation theory and readiness, convenience, expense reduction as mediator variables with the hope to help quideline for Department of Land Transport to create a policy to improve service quality to satisfy citizen. Questionnaires were collected from 400 Thai citizen who had experience with vehicle annual tax service. The results of the exploration of the contribution of perceived usefulness, perceived ease of use and diffusion of innovation can impact on intention to use, which could lead to actual use. Descriptive statistics were used to analyze and describe the data after organizing, tabulating and depicting the results. They were also used to systematically illustrate the facts and characteristics of the population within the contextual framework. Structural equations modeling (SEM) was used to formulate models to test predictive power. This model provided explanations of the relationships between the measured variables. These findings can be interpreted that higher levels of perceived usefulness, perceived ease of use and diffusion of innovation were associated with higher levels of intention to use. Furthermore, the results of this research can be used as a model for executives in formulating relevant policies and strategies to achieve department goals and developing an efficient government public service innovation that is in accordance with the needs of citizen in everyday life.

**Keywords**: e-Government, Diffusion of Innovation, Innovation, Service Innovation, Self Service Technology, e-Payment, Adoption Technology Model, Technology Acceptence

#### **INTRODUCTION**

e-Government is a new management method for government by using computer technology and communication to improve public service efficiency. Thailand established e-Government since 2010 and also have e-government office to promote e-government system and e-government public service model by using e-service. The purpose of e-government is not only benefit for government but also citizen and business that they can access to national data and government service by using one stop service. After review some research for

Thailand e-government I found that we still have some problem such as technology infrastructure still not support throughout Thailand (Thira Kulsawad 2012: 159) same as Rewat Sangsuriyong (2011: 95-98) summarize that difference area, difference income and education effected e-government service.

For Department of Land Transport (DLT), they set up a plan for future service by using 3S, (Safety & Security, Sustainability, Smart Transport). For smart transport strategy they plan to improve their service to support private car and motorcycle that registered about 40 million units in Thailand. Every year all cars and motorcycle must renew annual tax stamp. Today, citizen must go to DLT to renew and get tax stamp or pay for tax at DLT's agency and wait for tax stamp (citizen must pay for tax stamp mailing charge) that why I am interested to research how to innovate this public service by using self service technology to serve Thailand citizen.

#### LITERATURE REVIEW

#### 2. 1 Definition of e-government



e-public service for e-government divide into 4 groups

- Government to Government : G2G such as national ID card data can be linked with government hospital and other government department
- Government to Citizens : G2C such as personal income tax submit to The Revenue Department via website
- Government to Employees : G2E such as human resource system for government officer to serve their leave, evaluation etc.
- Government to Business : G2B such as registration for OTOP today project to support local business for e-commerce

This research will focus about G2C as per DLT's vision and plan of 3S strategies (Safety & Security, Sustainability and Smart Transport)

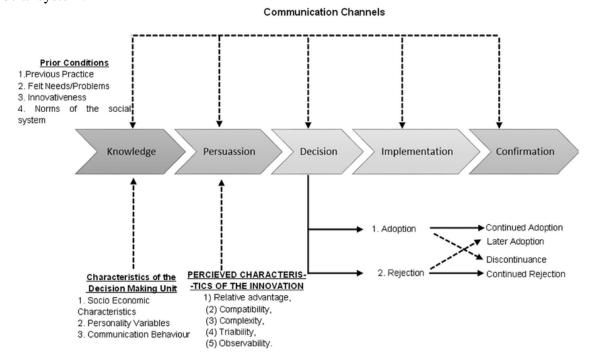
#### 2.2 Theory of innovation

Organization must focus 4 Ps of innovation (Schumpeter, J.A. 1934), product innovation such as touch screen key board to replace key board, process innovation such as 3D printing to replace old process of mould, position innovation it means repositioning product and paradigm innovation to change in mental model example is old day we believe that man made car must be the best but later we can prove that machine made car with high quality process is better than man made in term of cheaper and stable quality. For service

innovation (Hjalager, A.M. 2002) can be 5 types, product and service innovation, process innovation, management innovation, logistic innovation and community innovation. For Gallouj, F. (2002) research service innovation can be 3 types, ad hoc innovation it is about interaction between provider and consumer, anticipatory innovation it is about how to develop new market and transformation of tacit knowledge. Theory of innovation is a basic knowledge of innovation both product and service innovation for government and private organization.

#### 2.3 Diffusion of Innovation

Diffusion of innovation (Roger, E. M. 2003) is a process of communication to social member in a period and have 4 elements are innovation, communication channel period and social system.

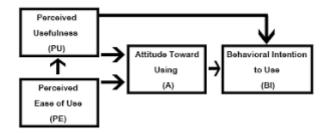


#### 2.4 Self Service Technology (SST)

Self service technology were study since 1980 by Toffler A. (as cited in Considine and Cormican, 2017) as "prosumer" this word stand for "production by consumer". Reasons of increasing labor cost and demanded from consumer for any time and any where service (Lin and Hsieh, 2011) create SST. SST is expanded from technology interface to serve consumer to do transaction by themselves (Meuter, Ostrom, Roundtree and Bitner, 2000). In summarize SST can make both consumer and service provider more convenience, save, precision, faster etc.

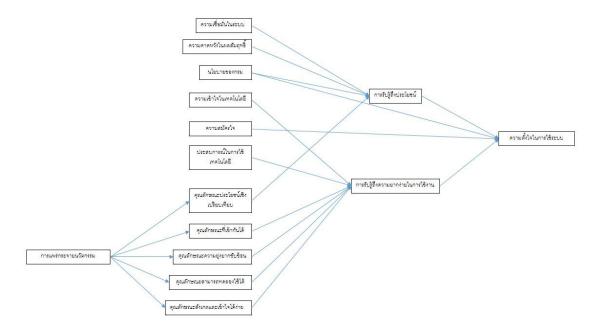
#### 2.5 Technology Accepance Model: TAM

Technology Acceptance Model developed by Davis (1985), this model was refer from many research papers and Davis developed from The Theory of Reasoned Action: TRA which explained about personal behavior



This picture showed that correlation for Technology Acceptance Model are behavioral intention to use (BI), Perceived ease of use (PE), Perceived usefulness (PU) and Attitude Toward Using (A)

#### Conceptual Framework for this paper



RESEARCH METHODOLOGY

#### 3.1 Research Design

This research chose convenience sampling from citizen who lives in Bangkok and have experience to pay vehicle annual tax service at DLT service center outside DLT office such as department store, convenience store and authorized inspection private office in Bangkok etc. The sample size is 400 citizen. The questionnaires are divided into 4 parts as follows: 1. Data General questionnaire (Personal characteristics) 2. Dimension data of Perceived Ease of Use (Technology experienced) 3. Dimension data of Perceived Usefulness 4. Dimension data of Behavioral Intention to Use. Data analysis uses structural equation modeling: SEM

#### **RESULTS AND FINDINGS**

#### 4.1 Descriptive analysis

Demographic data shows that the gender of the responsents is nearly one to one 58% male participants and 42% female participants. The average age of the respondents was 35 years old. Most of respondents have high education level and only 20% of participants have education level of lower than high school.

The results of the exploration of the contribution of perceived usefulness, perceived ease of use and diffusion of innovation can impact on intention to use, which could lead to actual use. Descriptive statistics were used to analyze and describe the data after organizing, tabulating and depicting the results. They were also used to systematically illustrate the facts and characteristics of the population within the contextual framework. Structural equations modeling (SEM) was used to formulate models to test predictive power. This model provided explanations of the relationships between the measured variables. These findings can be interpreted that higher levels of perceived usefulness, perceived ease of use and diffusion of innovation were associated with higher levels of intention to use.

#### **CONCLUSION AND DISCUSSIONS**

There were two main goals of this research study. The first main goal was to investigate the impact of perceived usefulness (PU), perceived ease of use (PE) and diffusion of innovation on the intention to use (IU) which may have been a predictor of actual use (AU) of vehicle annual tax self service kiosk. The second main goal was to be used as a model for executives in formulating relevant policies and strategies to achieve department goals and developing an efficient government public service innovation that is in accordance with the needs of citizen in everyday life. The population of this study consisted of 40 million (car and motorcycle owner). The finding from this research study provided a frame work to identify factors that will impact specific variables that may lead to intention to use and actual use.

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# A STUDY OF THE COMPONENTS OF DIGITAL MARKETING AFFECTING THE DECISION TO VISIT THAILAND BY CHINESE TOURISTS

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#### **ABSTRACT**

The research study on the elements of digital marketing affecting the decision to visit Thailand by Chinese tourists. The objective of this research is to study the components of digital marketing that affect the decision to visit Thailand by Chinese tourists. This research is a documentary research using secondary data from relevant documents and research in the study, analysis, and synthesis of data in order to obtain the components of digital marketing that can influence the decision. Travel to Thailand for Chinese tourists. The study found that The elements of digital marketing that affect the decision to visit Thailand by Chinese tourists are 1. Website & Landing Page 2. Content Marketing 3.E-Mail Marketing 4. Search Engine Optimization:SEO homepage and 5. Social Media Marketing.

**Keywords:** digital marketing, decision to visit Thailand

# **INTRODUCTION**

Thailand is an important tourist destination. Of foreign tourists If ranking the number of foreign tourists in each country will find that China ranked No. 1 in 2016. The number of Chinese tourists visiting Thailand has increased to 8,757,466 people, with a growth rate of 10.34% compared to 2015. The issue that Interesting is the number of Chinese tourists visiting Thailand is growing rapidly. The tourism pattern of Chinese tourists has changed dramatically. In the past, mainland Chinese people would prefer group touring methods. But nowadays, the reason that the internet has become a part of everyone's life has made access to news and information from digital media easier and more convenient In addition, the expansion of electronic commerce technology that began in the 1990s made businesses began to focus on marketing through electronic media using the internet more until the beginning of the 21st century, it truly became the era of electronic society (Fader and Winer, 2012). Digital marketing became more widespread and clearer.

Digital Marketing is marketing almost all through digital media or just using digital media as an extension of their marketing. Digital marketing is a two-way communication, in which users or consumers can interact with media of their choice. Customers have more interaction with the company or marketing. Resulting in the marketer having a variety of customer information this wide range of data can be analyzed to find a marketing strategy that meets and meets the needs of customers. Digital media is a communication through content and the delivery of services that can communicate in two ways instantly. By using different digital technology formats, such as the internet, mobile websites, digital TV, IPTV, and other digital devices, which today have a tremendous number of users. Allowing both government and private sectors to adopt new technology to improve operations. At the same

time, consumer behavior has changed from using technology. That can respond to communication and process quickly there is not difficult learning, using, and adapting to technology. Until various technology and modernity become the basis for daily life such as high speed internet or various devices such as smart phones that became communication tools in everyday life Able to connect to the internet at any time An online world that everyone can access and connect to Therefore not surprising that consumers have information and can access makes it able to quickly find what you want to know through the digital structure Therefore, marketers must adapt to these changes and change their perspective from a central point in the business, namely the seller. Into concepts that focus on giving importance to consumers in addition to being a buyer and also being reliable in providing information about the products used or feelings towards the business through news sharing which made consumers become media influencers Which is more reliable than advertising or word-of-mouth in the past and has been involved in brand activities that you like, such as creating online communities related to that brand which the brand owner is not the creator or invest in any way to promote the brand to be more famous and famous.

The expansion into electronic societies (Fader and Winer, 2012) and digital marketing can be seen from the case study of an IBM company that focuses on the four challenging issues in the electronic society: big data management. Using social media the expansion of distribution channels and changes in the structure of demography, which 3 in 4 issues of this challenge affect development very much according to the guidelines for operating digital marketing Causing the business sector to focus on investment in marketing activities through social networks continuously increasing consistent with past research that found More than 90% of consumers use social media to read reviews of products or services before making a purchase, with 67% of shoppers focusing on creating interesting marketing content. For this reason, businesses are using social media or using modern technology to help review more products or services. Which is considered a part of digital marketing which began to play an important role in the decision to purchase goods and services of today's consumers (Godes and Silva, 2012). In addition, the business sector is also focusing on digitally building relationships with customers. (Phillips, 2015) such as using digital technology devices such as smartphones. That can connect everything to the internet to be able to control the usage of various devices via the internet such as turning on - off the electrical appliances, communication, product publicity Financial transaction Including transportation and tourism.

Digital marketing is therefore a way of doing business by applying digital technology to create good interaction with customers, partners, business partners. Including stakeholders with business through easy communication methods, relying on the delivery and presentation of added value of products and services to all stakeholders efficiently and appropriately. In addition, digital marketing can help create more value for customers to experience new forms of up to 20 percent per year. Which is more effective than using offline marketing strategies (Bughin, 2015)

The digital revolution has become a threat to businesses today, so marketers in the digital age need to find ways to create value for their customers and focus more on their business profits. Integrating marketing tools digitally and using technology to help with business operations Therefore becoming an important strategy to create business challenges in particular, high-tech companies or telecommunications technology are facing significant challenges regarding the transition to digital TV services. Which need to adjust the service to be in line with the changes (Friedman, 2010) The digital market is a fast-changing era of technology and consumer behavior. Considered as a challenge for every business that needs to adapt to keep up with the changes Especially the service business that requires new creativity Therefore, there is a need to improve and develop the presentation of products or services from good database management. To create good interaction with customers by

providing feedback or suggestions necessary for marketing management services in the digital age.

Therefore, marketers must be interested in integrating technology with marketing concepts into digital marketing. Which brings the internet and digital technology to be used together with traditional marketing communications. To achieve marketing objectives through the use of media and digital technology make the business successful (Chaffey & Ellis-Chadwick, 2016) able to support Chinese tourists who like to travel abroad the study found that 73% were born after the Chinese government issued a one-child policy (1980) and were born in a time when the Chinese economy began to develop rapidly. Therefore have a higher education level than the parents Highly knowledgeable in technology more proficient in English giving importance to independence and flexibility in tourism as well Therefore this group of tourists has become the main group which is expected to become a major force of the Thai tourism market in the future (GfK China, 2016) Currently, although the research on Chinese tourists is increasing. However, the research which gives importance to the composition of digital marketing that affects the decision to visit Thailand by Chinese tourists is not much. At the same time for the reason that this group of tourists are knowledgeable. There is high internet access and very closely adheres to search for travel information online. Today, there are Thai people who see the opportunity and start doing business by creating a website or tourism application that is intended for Chinese tourists to use. For this reason, the researcher is interested in studying the components of digital marketing that affect the decision to visit Thailand by Chinese tourists. For the benefit of Thai tourism business operators or those interested in operating this type of business be aware of the elements of digital marketing and use it in planning to make a decision to travel to Thailand by Chinese people in the future.

#### **OBJECTIVE**

To study the elements of digital marketing that affect the decision to visit Thailand by Chinese tourists.

#### **METHODOLOGY**

This research is a document research using secondary data. From relevant documents and research in the study, analysis, and synthesis of data to get the elements of digital marketing that affect the decision to visit Thailand by Chinese tourists.

#### LITERATURE REVIEW

#### **Digital marketing**

Technological developments have made people change the way they buy products or services. Most consumers spend their free time in the digital world and want to have more interaction. Therefore, digital marketing is a tool to reach those consumers. Digital marketing comes from two words, Digital and Marketing. The meaning is quite clear because the word Digital means digital numbers. Marketing Means marketing Together, it can be concluded that Digital Marketing means marketing through digital media to promote products and services. Engage with customers Increase sales using various digital media strategies. Digital marketing is a new type of marketing by using digital tools technology to carry out marketing activities (Natthaphon Yaiphairot, 2016) that marketers use to communicate with the target

audience to create product awareness. public relations Branding and sales on electronic tools such as smartphones, tablets, notebooks, etc. According to a literature review on digital marketing, digital marketing tools have different characteristics. Can be measured in variables with 5 components as follows: 1) Website & Landing Page refers to a document system used for displaying various forms of information on the internet such as static text, video, audio. A webpage is like an electronic document, in which each document can be linked by hyperlink, also known as a link, a basic tool for entrepreneurs who want to do digital marketing because having a website is like having a page. A store that can recommend products and trade on the website right away is the center of other media. 2 ) Content Marketing is marketing by creating content in various forms Whether content, video, or graphic to interact with the target audience and encourage sharing when the content is useful to consumers in some way, such as providing entertainment or providing some content the purpose of content marketing is inevitable, resulting in brand recognition and creating brand loyalty. 3) Electronic mail or email marketing or Direct Mail in the form of email is an old tool but still It works well and it is a very powerful tool that has a low cost when compared to other media. The purpose of email marketing is In order to send news, publicity, promotional activities, or advertisement of products or services to the target group that we want to communicate by using the database to send in Text or Html format to the target list is one of the channels of online marketing because it can create a new group of customers can expand the customer base both horizontally and vertically or used for public relations to create ongoing marketing activities with current customer groups of this type of tool seems to be easy to use. But in reality In order to use this type of tool effectively will require a systematic strategy that is quite whether it's the right time to send an email to the target. Target group selection Group priorities sending administration when there is a response via CTA Link, even choosing a host to release EDM which has low blocking rate from the destination etc. 4) Marketing via social media (Social Media Marketing) is the latest digital marketing communication. When the internet world created social networking websites such as Facebook, Twitter and Instagram. Within each network there will be people who are classified to influence customers. Which may come from the characteristics of being a knowledgeable person have experience and skills in conveying stories interesting and credible resulting in a large number of followers (Fan or Followers). Therefore, the technique of using this type of marketing tool meaning entrepreneurs must find and build good relationships with network influencers and consumers closely involved Is the most powerful tool available today. There are many popular platforms such as Facebook (the most popular in Thailand), Twitter, Instagram, or Pinterest, for example. Each channel has different objectives. Because social media is the main channel which the target audience and customers reach themselves willingly, so there are many tools to manage these channels happening in the market, whether helping to manage the content appropriately for the target audience tools to help analyze comments and types of customers. Tools to help create a campaign (Campaign), a tool that acts as an intermediary to connect the system to advertise with the social media platform. For the purpose of Retargeting itself, and 5) to dominate the homepage (Search Engine Optimization (SEO) is a way to customize the website, including content improvements and adding quality links to the website In order to get the website stuck in the top rank on the Search Result Page when filling in the desired Keyword via Search Engine such as Google, Yahoo!, Bing, etc., which is a powerful advertising tool. Because can reach the target audience helps to search for information or content that is exactly as we want on Search Engine.

From the review of relevant literature to compile into the components of digital marketing that affect the decision to visit Thailand by Chinese tourists. From relevant scholars and researchers, it can be concluded that Digital Marketing consists of 5 components

which are 1. Website & Landing Page 2. Content Marketing 3. E-Mail Marketing 4. Search Engine Optimization: SEO) And 5. Social Media Marketing details in Table 1. Table 1 shows the components of digital marketing.

นักวิชาการ/ผู้วิจัย	Website &	Content	E-Mail	Search Engine	Social Media
	Landing	Marketin	Marketin	Optimizatio	Marketin
	Page	g	g	n	g
Friedman, (2010)	✓	✓	✓	✓	✓
Fader and Winer,	✓	✓	✓		✓
(2012)					
Godes and Silva,	✓	✓	✓	✓	✓
(2012)					
Phillips, (2015)	✓	✓	✓	✓	✓
Bughin, (2015)	✓		✓	✓	✓
Chaffey & Ellis-	✓	✓	✓	✓	✓
Chadwick, (2016)					
Nitisart Dechkul.	✓	✓	✓	✓	✓
(2015)					
Tarnprasert, P.	✓	✓	✓	✓	✓
(2016).					
Natthaphon	✓	✓	✓	✓	✓
Yaiphairot. (2016)					

#### **RESULTS**

The elements of digital marketing that affect the decision to visit Thailand by Chinese tourists are 1. Website & Landing Page 2. Content Marketing 3. E-Mail Marketing 4.Search Engine Optimization (SEO) and 5. Social Media (Figure 1)

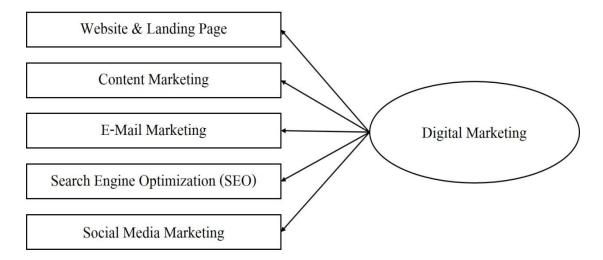


Figure 1 shows the components of digital marketing.

#### CONCLUSION AND DISCUSSION

The study results show that The elements of digital marketing that affect the decision to visit Thailand by Chinese tourists are 1. Website & Landing Page 2. Content Marketing 3. E-Mail Marketing 4. Search Engine Optimization (SEO) and 5. Social Media Marketing in line with Friedman (2010) Fader and Winer Research (2012) Godes and Silva (2012) Phillips, E. (2015). Bughin, (2015) Chaffey & Ellis-Chadwick, (2016) Nitisart Dechkul. (2015) Tarnprasert, P. (2016). and Natthaphon Yaiphairot. (2016)

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# PREPARING THE NEW FACE ACTORS/ACTRESSES FOR MEDIA AND ENTERTAINMENT INDUSTRY IN THE 21ST CENTURY

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## **ABSTRACT**

Nowadays, Thai entertainment and media become more popular in ASEAN countries due to the cultural linkage and accessibility such as music, drama and film etc. as it can be noticed on publication or duplication which causes to the popularity in China, Myanmar and Laos. Consequently, preparing the new actors for Thai media and entertainment is significant to process and worth production.

The new actors are the significant entertainment people due to they would pass on the performance through various roles to impress the audiences in Thailand and worldwide. Consequently, casting for new actors and preparing their acting would have to keep improving themselves continuously, as well as work discipline, acting skill and other skills which are necessary. When it comes to creativity process and publishing products, it requires new faces actors/ actresses' skills to produce quality entertainment work and to make them famous in the future.

**Keywords:** Preparing the New actors, Media and Entertainment Industry, Entertainment Society, Actor, Performance

# **INTRODUCTION**

In the 21st century which is the innovation and technology era. Our world has been changed rapidly. Most of the countries all over the world have to stepped up to show their potential through many events such as economy, army, tourism including media and entertainment industry. Thailand has developed and created the Film and Video Industry Promotion Strategy Phase II (2012–2016) and Phase III (2017–2021) for guiding the film and video industry promotion in Thailand on clearly direction and goal, a protocol of administration and integration for 5 strategies as following;

- Strategy 1: Improving the professionalism for people in Thai film and video industry
- Strategy 2: Promoting and improving Thai film and video market
- Strategy 3: Promoting the intellectual property prevention and preservation of film and video
- Strategy 4: Promoting the cooperation on international investment and inbound film
- Strategy 5: Improving the competency of film and video industry

The Secretariat of the Cabinet, the significant media as the idea and behavior incubator for the creative characteristic of youth and general public and their living adaptability. Government policy specified the film and video industry as a cultural tool to strengthen the position of Thailand in the global stage.

Nowadays, Thai media and entertainment industry become more remarkable due to its high return as all users in 2017 were; 76% was on Facebook, 51% was on Instagram and 42% was on Twitter. The consumers were more interested in Live TV and content on the screen which caused to a change of media's role and advertising, a new media revised the marketing strategy by digital media of photo and video (Research of Thailand Creative & Design Center - World Trend 2018: IN/TO The Future) which expect that in 2022, media and entertainment industry would be 478,355 million baht with 6.5% of average growth rate for 2018-2022 (Survey on A Trend of Media and Entertainment Industry by PwC's Global entertainment and media outlook 2018-2022). Especially the revenue from digital media which would affect to the growth of media and entertainment industry. Consequently, the producer of TV drama, series, film and advertising would focus on their quality product due to TV drama and film could publicize the cultural product rapidly and enormously including the internet that support their accessibility (Information Center for Thai Business in Nanning, China). There is a high competition in media and entertainment on the popularity of artist and product quality, and a trend of Thai drama which became more popular in ASEAN countries as its quality for (Dr. Amporn Jirattikorn, Researcher 2015, ASEAN Watch Project, Thailand Research Fund: TRF) and indicated that it was a good signal for the entrepreneurs and producers to continue improving and creating their media and entertainment product as a tool of economic development by creating the cultural product for responding to a demand of market and consumer due to the culture was a soft power infiltrated properly (Information Center for Thai Business in Nanning, China). The success of media and entertainment industry would depend on readiness arrangement, differentiation strategy and casting for new actors with various competencies to attract the current audiences and the new audiences.

The new face actors/ actresses are encouraged to take the acting improvement and training to prepare themselves for the work readiness and learn more discipline as it is significant for media and entertainment production. As a result, investing on training to prepare these new actors is one of the most important investment for producing media these days.

A drama would become a popular show or not, it could depend on the actors who can attract the audiences, most of them choose to see their favorite actors, and then the casting for new actors was very significant (Jitlada Ditsayanan, 1995: 477). Consequently, the entertainment organization emphasized on preparing the readiness for new actors due to the production and demand on media and entertainment industry has been growing up, the quality and diversity are needed to be responded to the audiences' demand. There are various factors such as creative team, production team, advertising team and most importantly, the actors who are the major in the production as they have to involve with the production process; casting, (Weera Supha, 1993) and preparing the new actors for media and entertainment industry is an important process which takes time and requires well-planned according to reach their goal.

The casting and preparing the new actors are not only giving them the meaning and instruction to understand the work process in the entertainment industry but also learning their behavior, habit and outstanding characteristic. All of these factors are being used to choose the most appreciate actors for the roles and efficiently as Assoc. Prof. Kullathon Thanaphongsatorn (1992: 439) said, "recruitment is finding the best person with appropriate knowledge for each position by applying the efficient and effective method which is consistent with the economy and business policy.

# Significance of preparing the new actors for media and entertainment industry in the 21st century

Nowadays, media and entertainment industry in Thailand and all around the world emphasize on the production and creative product for being known and interesting for the audiences, the entrepreneur and producer specify the best strategy beating the competitors in the same industry especially preparing the new actors to the market as presenting the product for diversif demands in the big commercial stage including the diversified and quality actors.

The new actors are the tools for driving the new product for entrepreneurs and producers, and creating the widely popularity for media and entertainment industry.

















Poster of the casting for new actors by the lead organization of Thailand

All though, the entrepreneurs and producers in various organizations attempt to cast the new actors continuously but they still have a problem finding skilled actors as some of them are not trained and prepared themselves properly, then it causes their professionalism and the comparison with the old actors. Consequently, many entrepreneurs and producers emphasized on the process of preparing the new actors for being the good prototype and accepted as the old actors.

# Process of preparing the new actors for media and entertainment industry in the 21st century

Before the process of preparing the new actors, it should have a plan meeting on casting the new actors to specify the aim and requirement clearly in type of product, target group, trend and demand of market to achieve the goal. Then, the casting would be as the specified qualification and amount of new actors.

# Preparing the new actors consisted of 2 processes as following;

1. Process of acting improvement of new actors

The new face actors/ actresses are selected to be a part of organization and also get an opportunity to train with experienced and talented trainers in the period of time. The professional trainers would design the structure or course by their teaching plan due to it

would be trained continuously and the actors could be the art creative by their intention on self-improvement and benefits for the general public. Consequently, the teaching plan should be intensive from fundamental issue for their adaptation and understanding step by step on this career for the consciousness and responsibility to support them to be ready for being the professional actors in the future.

After the actors get to know more about their career, the next important thing to learn is the work discipline. They have to cooperate with the many people such as production team, advertising team and the other actors, then the discipline and social manner are needed and significant. If they are systematic, respect for the others and responsible for their work, they would be impressed by the general public and create a good reputation for their organization.

"Preparing myself before filming is very important because I have to learn what kind of character I am playing as and understand who I am in the play from the director description. For example, once I know that I am supposed to act as a very competitive person who like to talk down to people, I would practice by myself in front of the mirror. When it's time for the workshop with the team, I get to practice on my tone, face expression and some action which is quite difficult. Once I am prepared myself very well and with some more practicing, eventually I am that character "said Pornpaschanok Mitchai (2018). Therefore, the work discipline for new actors should be the first step for being the good actors who take responsibility for themselves, society and organization.

People would think that the new actors are not disciplined, bad acting and not into their characters, but not all of them are. If the actors are dedicated to their job, it will make it easier for the director to work with. Casting for new actors is for presenting the new face to the audiences but it is difficult to find the good ones who can act from the beginning and not just having a pretty face. The workshop would provide them the acting training that they need. Both new actors and actresses and their diversities, if they act good, their appearance would be better and they get some respect ,Banjerd Puttasopit (2018).

Moreover, the acting trainers must pass on their knowledge and other acting techniques which are necessary to support the actors to be successful in their acting career. Including giving them homework to keep practicing and improving themselves. Additionally, the trainer should introduce a role model to inspire them and to encourage them to improve their acting for their success.







Acting Training for New actors

Nowadays, the drama society emphasize on acting and workshop to keep improving themselves due to an amount of television channel from Channel 3-5-7-9 are up and over 20 channels with the same amount of the audiences which affected to the unrecognition in the new actors, then the producer would have to bring the old actors back for keeping the mass market. Some of the new actors are not recognized and disciplined, if they would like to be the professional actors, they should be trained to learn some new skills such as horse riding, gun shooting and diving etc. in order to be more outstanding, Keerati Nakintanon (2018).

In consequence, the new actors with only one skill would not be enough for a demand of producer due to the composition would consist various skills such as gun shooting, horse riding, sailing and cooking etc. which could be their charisma.

# **Process of acting assessment of the new actors**

After learning and training the significance of role and responsibility of being an actor and techniques, it is going to be the process of acting assessment to test their skills.

The process of acting assessment for new actors is not only the acting assessment, it is also the sharing of idea and attitude for self-improvement and process with all teams included the relevant entrepreneurs and producers in order to assess all the relevant entrepreneurs, producers, acting trainers, teams and new actors under the same organization in the same time.

Nowadays, there is a lot of competition in the entertainment industry in Thailand and worldwide. The actors are significant for the organization and their skills are needed for a diversity of composition and pattern of each company, then they would have to keep preparing themselves for work all the time to save time and cost including the competitive advantage which is worth investment and needed for business. The factors affecting the success of new actors are knowing of themselves, respect for their career and be responsible for the assignments, Anyarin Teeratananpat (2018).

The process of acting assessment of new actors depends on the executives who require it, there are 2 types as following;

Type 1: All executives, acting trainers and teams arranged a meeting with new actors to test their acting skills by giving or not giving a topic to prepare themselves before the test as the executives require. In case of there is no topic, it is for testing their readiness which shows how they can be ready and appropriate for the media and entertainment industry or not.

Type 2: The relevant executives and teams would arrange the acting test through the experimental production process with the real product that new actors involved with. It is the significant test in physical, mental and various skills on the real working situation including to confront with both of internal and external competitors.

In order to be successful actors, they would have to put lot of effort, practice and test themselves to find their strengths and weaknesses to accomplish the acting test. In case of finding their weaknesses, they would have to accept the truth and suggestions from the acting trainers for their improvement and readiness for this work.

# Benefits of preparing the new actors for media and entertainment industry in the 21st century towards the society and nation

Preparing the new actors for media and entertainment industry was not the only process of casting but it also benefits for the society and nation that when the organization found the new actors to drive a new product for the entertainment market, they could set a popularity trend in Thailand and worldwide, and affected to be well-known automatically. When they are well-known or called, "Super Star", their role would be changed, the new actors are not only the teenager but also expected by the audiences or followers on being good persons, gratitude for parents, sacrifice for society and good role models in various aspects. Consequently, the progress of new actors would not only depend on their skills but also a readiness for their responsibilities for other people, society and nation.

The organization should be aware of the roles for new actors in the future and be prepared for an agreement and understanding towards the society, charity or corporate social responsibility (CSR) with no benefits. This preparation would prevent the issue of misunderstanding and unsatisfaction of the new actors due to their acknowledgement on this duty for the general public.

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# SUPPLY CHAIN PERFORMANCE IN PERISHABLE PRODUCT IN THAILAND

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## **ABSTRACT**

This research presents a quantitative data analysis of the complete set of results from supply chain performance measurement and supply chain cost. The purpose of meta analysis is to identify trends and provide an overview of all data collected. The analysis of trends is reliable when a large sample of collected data is used. The meta analysis also examines the relation between all parameters within the supply chain performance measurement using SCOR model.. The meta analysis covers identifying costs of perischable product supply chain that are operating costs associated with business functions related to the procurement, manufacturing and distribution. Finally, the inter-correlations of supply chain performance and supply chain cost are also examined.

**Keywords:** Logistics Performance, Orchid, Supply Chain Cost

#### INTRODUCTION

The quantitative meta analysis was aimed at conducting a further investigation of persiable vendors will be made by the use of supply chain performance measurement. Supply chain performance measures can be classified broadly into two categories: qualitative measures (such as customer satisfaction and product quality) and quantitative measures (such as order-to-delivery lead time, supply chain response time, flexibility, resource utilization, delivery performance, etc.). This study considers only the quantitative performance measures in which the measurement was developed using SCOR model. It was used to identify, measure, reorganize and improve the persishable supply chain processes. Improving supply chain performance may require a multi-dimensional strategy that addresses how the organization will service diverse customer needs. The inter-correlations of supply chain performance and supply chain cost are examined. These can be used to identify the correlation among different parameters, and correlations within supply chain performance measurements objectively and subjectively. This may also provide information regarding which technique is most or least functional as a measure of supply chain collaboration. The meta analysis here presents a cross examination of both measurements to allow statistical and descriptive comparison. The trend of data that is wider spread can be more identifiable, and this data is less likely to be biased by anomalies.

#### LITERATURE REVIEW

## 1. SCOR Model

The supply chain operations reference model (SCOR) is a management tool used to address, improve, and communicate supply chain management decisions within a company and with suppliers and customers of a company (Supply Chain Council, 2004). The model describes the business processes required to satisfy a customer's demands. It also helps to explain the processes along the entire supply chain and provides a basis for how to improve those processes.

The SCOR model was developed by the supply chain council (<a href="http://www.supplychain.org">http://www.supplychain.org</a>) with the assistance of 70 of the world's leading manufacturing companies. It has been described as the "most promising model for supply chain strategic decision making (Huan, 2004)." The model integrates business concepts of process re-engineering, benchmarking, and measurement into its framework. This framework focuses on five areas of the supply chain: plan, source, make, deliver, and return. These areas repeat again and again along the supply chain. The supply chain council says this process spans from "the supplier's supplier to the customer's customer (Bauhof, 2004)."

Supply chains have evolved into efficient chains with using latest tools and technologies. Aiming to increase level of service, supply chain sellers, had a need to use a standard model to base their operations and measure their performance. In order to gain a competitive advantage and improve organizational performance of the companies, SCOR model is developed by Supply Chain Council (SCC), to measure performance of the chain. It provides standard terminology which can be used for deciding, arranging and implementing supply chain processes. SCOR model has several processes. These processes are named as plan, source, make deliver and return. Plan: It is analyzing the information and forecasting market trends of goods and services. Marketing and finance departments apply planning process by monthly and yearly reports. Source: It is a procurement system with procurement model. It includes search, negotiation and evaluation agents to amend supplier selection, negotiation, and evaluation. Make: It is the manufacturing of goods not only in terms of time but also about production belt and batch. Deliver: It is the processes, which provides finished goods and services to reach planned or actual demand. Return: It is processes, returning the goods or receiving the product (Trkman et al,2010). It shows figure 1.

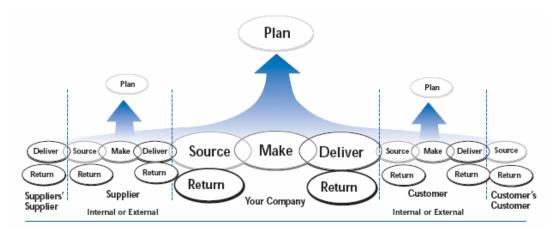


Figure 1: SCOR Model

#### Plan

Demand and supply planning and management are included in this first step. Elements include balancing resources with requirements and determining communication along the entire chain. The plan also includes determining business rules to improve and measure supply chain efficiency. These business rules span inventory, transportation, assets, and regulatory compliance, among others. The plan also aligns the supply chain plan with the financial plan of the company.

#### **Source**

This step describes sourcing infrastructure and material acquisition. It describes how to manage inventory, the supplier network, supplier agreements, and supplier performance. It discusses how to handle supplier payments and when to receive, verify, and transfer product.

#### Make

Manufacturing and production are the emphasis of this step. Is the manufacturing process make-to-order, make-to-stock, or engineer-to-order? The make step includes, production activities, packaging, staging product, and releasing. It also includes managing the production network, equipment and facilities, and transportation.

## **Deliver**

Delivery includes order management, warehousing, and transportation. It also includes receiving orders from customers and invoicing them once product has been received. This step involves management of finished inventories, assets, transportation, product life cycles, and importing and exporting requirements.

#### Return

Companies must be prepared to handle the return of containers, packaging, or defective product. The return involves the management of business rules, return inventory, assets, transportation, and regulatory requirements.

# **Benefits of Using the SCOR Model**

The SCOR process can go into many levels of process detail to help a company analyze its supply chain. It gives companies an idea of how advanced its supply chain is. The process helps companies understand how the 5 steps repeat over and over again between suppliers, the company, and customers. Each step is a link in the supply chain that is critical in getting a product successfully along each level. The SCOR model has proven to benefit companies that use it to identify supply chain problems. The model enables full leverage of capital investment, creation of a supply chain road map, alignment of business functions, and an average of two to six times return on investment.

The SCOR model establishes the notion of business process reengineering (BPR), performance measurement, and logistics management by combining these techniques to cross functional framework. This framework has four levels, x

Level 1 – identifies the important supply chain processes- plan, source, make, deliver and return. It aids firms to form supply chain management objectives. X

Level 2- explains the main process categories that exist in real and created supply chain in an enterprise. For instance, the source part has 'source stocked products', 'source make-to-order' and 'source engineer-to-order products x

Level 3- includes information for the supply chain management to plan source and build goals for supply chain management strategy. This also consists of definitions, benchmarks, and system software capabilities. x

Level 4- centers on implementation. Since the supply chain management implementations are special to each company, the specific parts of level 4 are not explained in the SCOR model (Wang et al, 2005).

# 2. Supply Chain Performance

This measurement identifies five core supply chain performance attributes: Reliability, Responsiveness, Agility, Costs, and Assets. They are shown as follows (Hotrawaisaya, 2014):

# 2.1 Reliability

The Reliability attribute addresses the ability to perform tasks as expected. Reliability focuses on the predictability of the outcome of a process. Typical metrics for the reliability attribute include: on-time, the right quantity, the right quality. The SCOR's KPI (level 1 metric) is Perfect Order Fulfillment. Reliability is a customer-focused attribute.

# 2.2 Responsiveness

The Responsiveness attribute describes the speed at which tasks are performed. Examples include cycle time metrics. The SCOR's KPI is Order Fulfillment Cycle Time. Responsiveness is a customer-focused attribute.

# 2.3 Agility

The Agility attribute describes the ability to respond to external influences and the ability to change. External influences include: Non-forecasted increases or decreases in demand; suppliers or partners going out of business; natural disasters; acts of (cyber) terrorism; availability of financial tools (the economy); or labor issues. The SCOR's KPIs include Flexibility and Adaptability. Agility is a customer-focused attribute.

# **2.4 Cost**

The Cost attribute describes the cost of operating the process. It includes labor costs, material costs, and transportation costs. The SCOR's KPIs include Cost of Goods Sold and Supply Chain Management Cost. These two indicators cover all supply chain spend. Cost is an internally focused attribute.

#### **2.5**Asset

The Asset Management Efficiency ("Assets") attribute describes the ability to efficiently utilize assets. Asset management strategies in a supply chain include inventory reduction and insourcing versus outsourcing. Metrics include: inventory days of supply and capacity utilization. The SCOR's KPIs include: Cash-to-Cash Cycle Time and Return on Fixed Assets. Asset Management Efficiency is an internally-focused attribute.

# 3. Supply Chain Cost

Supply chain cost is a discrete measure defined as the fixed and operational costs associated with the supply chain processes linking from upstream to downstream. A view of supply chain costs takes into account:

## 3.1 Investment Costs

In today's globalized economy, most supply chains are sprawling multi-site networks of suppliers, manufacturers, distributors, and retailers that stretch around the world. In this business environment, it is essential to make smart strategic decisions — over a time horizon of up to ten years — about where and when to invest in new facilities (such as warehouses and factories) and resources (such as equipment and employees).

Many supply chain companies pump too much money into the wrong locations at the wrong times or fail to invest in the right locations at the right times – and this can have a negative impact on their financial fortunes.

Managing investment costs and making sound strategic investment decisions is absolutely critical. To do this, your company must have:

- An end-to-end view of their supply chains (encompassing their entire network of customers, suppliers, manufacturers, distributors, and retailers).
- Accurate, data-driven demand forecasts for the coming five to ten years.
- A clear market strategy and expansion plans.
- The capability to correctly calculate current and potential investment costs across your supply chain and explore various "what-if" scenarios.

Getting a handle on strategic investment costs and making the best possible strategic investment decisions is crucial for your company to survive and thrive in today's global economic landscape.

# 3.2 Transportation Costs

The second key driver of supply chain costs is transportation costs. Typically, the root cause of higher transportation costs – for finished goods as well as raw materials and components – is inefficient supply chain network planning, routing, and deployment of resources.

To minimize transportation costs and times, your company must be able to make the best possible decisions about:

- The design of your supply chain network to ensure the location of suppliers, manufacturers, distributors, and customers is optimal.
- The utilization of your capacity by, for example, adjusting load size or engaging third-party logistics (3PL) firms when extra capacity is needed.
- The routes and modes of transport (truck, airplane, ship, etc.) that you use for particular orders taking into account your capacity and constraints (and those of your 3PL services providers) as well as product-specific requirements.
- The selection of the suppliers, manufacturers, and distributors that you work with

Many supply chain companies see their transportation costs skyrocket because they don't have the capability to take all the above considerations into account, conduct scenario analysis to evaluate different options in terms of transportation route, mode, and partner companies, and make optimized decisions on the best way to get their goods to their customers.

#### **3.3 Procurement Costs**

The third main contributor to soaring supply chain costs is procurement costs.

Choosing the right suppliers – who are consistently able to deliver the right products and materials at the right times and at the lowest prices – is vital.

Choosing the wrong suppliers – who are unreliable or expensive – can cause your OTIF performance and customer satisfaction to plummet and your procurement costs to shoot up.

To minimize procurement costs, your company must be able to:

- Use historical and real-time data to evaluate and compare the performance and pricing of various suppliers.
- Choose the most reliable suppliers with the most competitive prices, who are able to deliver the goods you need (in the right quantity, of the right quality, at the right times, and in the right locations).

By optimizing your procurement process, your company can ensure that you make the best possible decisions when it comes to supplier selection, dramatically reduce procurement costs, and improve delivery performance.

# **3.4 Production Costs**

Another primary source of supply chain costs – which applies to manufacturing companies in particular – is production costs.

Surges in production costs can be caused by various factors including:

- Inefficient utilization of assets such as production machines and other equipment. Many manufacturers are not able to assess their unit production costs (to identify which equipment and processes are inefficient) and weigh various production process alternatives and potential investment in new manufacturing technologies.
- Protracted machine set-up times which, in turn, increase asset downtime and production lead times and decrease capacity.
- Ineffective workforce management, which often results in a spike in overtime hours (and overtime wages that manufacturers must pay to employees).
- Rework, which is especially an issue for project-based or engineer-to-order (ETO) manufacturers. If each step of the manufacturing process is not performed correctly, extensive rework may be required and this can involve repurchasing expensive raw materials and even restarting the whole manufacturing process from scratch.
- Various manufacturing overhead costs for items such as electricity, water, and equipment maintenance and repair.

To minimize production costs (while maximizing production efficiency and OTIF performance), manufacturing companies must be able to make optimized strategic, tactical, and operational plans and decisions.

# 3.5 Inventory Costs

The last major driver of supply chain costs is inventory costs.

Companies across the supply chain spectrum – from retailers to manufacturers to suppliers – rely on inventory as a buffer against supply and demand uncertainty and volatility.

Although inventory is undoubtedly a source of comfort for supply chain executives (as they can rest assured that they will always be able to satisfy demand), it is also a source of costs.

Indeed, stockpiling and storing inventory can cause your costs – including warehousing and transportation costs – to shoot up and can tie up vital capital that could otherwise be used to propel your company's growth.

It's important to note that minimizing inventory costs does not mean eliminating inventory altogether – after all, some inventory is always necessary to fulfill customer demand. The goal here is to reduce excess inventory and to maintain just the right amount of stock of the right products in the right places at the right times across your multi-echelon distribution network.

## DISCUSSION

The present analysis of the impact of supply chain performance was made towards all vendors in orchids supply chain. For reliability, an average score of Plan, Source, Make, and Deliver was between 3 and 4 of Likert Scale. This means normally all vendors did not fulfill

a performance level as best practices, and that should be an efficient improvement. For responsiveness, data was collected as quantitative analysis. It should be noted that time to adjust delivery plan in case of order processing changes, time to release until receive an order from suppliers, duration of raw materials procurement from new sources, and time to deliver products in domestic was only 3 hours. Nonetheless, time to deliver products in overseas was nearly 2 days. Data was also quantitatively collected for agility. Time to adjust an order processing plan in case of changed quantity requirements, time to adjust an order processing plan in case of changed delivery time, time to release an order in case of an urgent requirement, and time to deliver products in domestic was also 1 day. Delivering persihable products requires speed to reduce decomposition of orchids because its short life cycle. Moreover, a policy in returning defective products by suppliers (from producers) and returning defective raw materials by producers (from customers) was approximately 1 days. For the cost perspective, supply chain management cost equals to \$400, cost of goods sold equals to \$350, value-added productivity equals to \$450, and warranty cost or returns processing cost equals to \$200. Similarly, the asset utilization was analyzed and summarized as follows: payment made to suppliers until receiving money from customers equals to \$180, perishable products equals to 40%, and flask equals to 60 %. Delivering was done by means of refer-truck, truck connecting with train, truck connecting with airplane of 80%, 10%, and 30%, respectively. The cost of transportation per number equals to \$250.

Supply chain cost analysis indicated and summarized that production acquisition cost equals to 32.40%, procurement cost equals to 1.44%, inventory carrying cost equals to 8.23%, and transportation cost for supply chain equals to 5.23%. This supply chain cost was calculation on a monthly basis as the fixed and operational costs associated with the supply chain processes linking from upstream to downstream. The quantitative meta analysis experimental programme has been shown to validate supply chain collaboration and a correlation of supply chain performance parameters. The analysis was proved to be an acceptable and useful approach, where controlled manipulation of independent variables was applied. The analysis showed a significant correlation of supply chain performance data integration, resulting in a more reliable examination of data trends. It was concluded that there were some correlations between supply chain performance and cost.

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# THE PARTICIPATION OF ECOTOURISM MANAGEMENT IN NAKORNPATHOM PROVINCE

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#### **ABSTRACT**

The objectives of this research were to study an ecotourism management, to study the participation in tourism and to compare the participation in ecotourism Nakornpathom Province. The data were collected from tourists totally 400 respondents. The instrument used to gather data were questionnaires with the reliability used at 0.79. The basic statically used to analyze the data were frequency, percentage, mean, standard deviation. The result found that the sample had the strongly agreed toward the participation in ecotourism within Nakornpathom Province. To consider into each aspects were found that there was one aspect which had the highest - level of agreement; it was the community organization aspect and there are 3 of high - level agreement; after ascending order from top to bottom were found as follows; Management Aspect, Learning Aspect and Natural Environment and Cultural Aspect. The factor of the participation in ecotourism which affected toward the conception of the people, the overall were found that the people had totally agreed with that. In addition, to consider into each aspect by sort out from top to bottom were found as follows; the participation on evaluation, the participation of planning, the participation on problem solving and issues and decision making on the operation policy. The conclusion on comparing of conception toward the participation in ecotourism management were classified by personal aspect were found as follows; Gender, Age, Monthly Income and length of living in Khlong Mahasawat had a significant different at .05 and the result of the comparison the conception of the people toward ecotourism management were classified by the personal factor, the overall were found that; Gender and Monthly Income had a significant different at 0.05 and in regards of Income had different in Community organization aspect, management aspect and learning aspect had a significant different at .05

Keyword: Ecotourism, Natural Environment, Tourist, Khlong Mahasawat

#### BACKGROUND AND SIGNIFICANCE OF THE PROBLEM

On top of beautiful islands, beaches and temples, Thailand offers some of the most intrinsically Thai aspects of its culture – its rural and agricultural traditions and close village communities. Thailand is known as a kingdom of farmers, and its rice, silk and food products are recognised all over the world.

In recognition of this great aspect of Thailand, the Ministry of Tourism and Sports has joined forces with the Ministry of Agriculture and Cooperatives to promote agro tourism, also known as agritourism. This collaboration was kicked start in August 2015 with four pilot destinations: Khlong Mahasawat in Nakhon Pathom; Pak Phanang in Nakhon Si Thammarat; Ban Khok Muang in Buri Ram, and Khao Kho in Phetchabun.

According to the Ministries, by exploring these destinations, tourists can gain an appreciation of Thailand's rural culture, meet with the locals, enjoy homestays and take part in fun activities. Such agro tourism also boosts rural communities looking for new streams of income, which will help ensure their survival.

The nearest agro tourism destination to Bangkok is the community-based tourism area along Khlong Mahasawat, a famous canal in Nakhon Pathom.

The canal is one of many that crisscrosses the province, and was dug 156 years ago to connect Khlong Bangkok Noi with the Nakhon Chaisi River. The construction, from 1860-1862, was ordered by King Rama IV, and when the waterway opened it made accessible nearly 20,000 *rai* (32 sq km) of fertile farmland. Agro tours here are by long-tail boats, which visit fruit orchards, lotus farms and orchid plantations.

Khlong Mahasawat's agro attractions are best seen in the morning to avoid the heat of the day. Long-tail boats leave from the local temple, Wat Suwannaram. While you're waiting for your tour to start, don't miss the chance to feed the canal's catfish, (all the nearby vendors sell bags of fish food). Just cast a few pellets into the water and instantly the water churns and froths as the fish fight to fill their bellies. These river monsters are so abundant that with enough pellets of food it seems you could walk over the water on a bridge of thrashing, silvery bodies.

The first canal stop is the local lotus farms. Anyone who spends time in Thailand knows the lotus to be a devotional flower and a symbol of spiritual purity. But lotus flowers have their uses in food and medicine and grow all year round making them a useful crop for local farmers. A rowboat will take you right into the lotus ponds where the morning dew runs off the huge leaves like shining mercury as pickers harvest the lotus buds. The local ponds specialise in pink and white blossoms, which are exported around Asia.

The lovely lotus ponds at Khlong Mahasawat were also included in the TAT's Dream Destinations 2015, a calendar of seasonal flowers that bloom in different regions and at different periods throughout the year.

Mangos, guava, massive jackfruit and award-winning pomelo grow in abundance along the banks of Khlong Mahasawat, and you get the chance to admire them from a tractor trailer commanded by a wannabe Grand Prix driver. As you gather speed among the trees and streams, and look worriedly at the next bend, your driver suddenly flings his three-metre long handlebars to the right or left, throwing his whole body into the movement so you clear corners with ease.

It's a strange exhilarating ride to experience in a sleepy orchard, and you'll be glad of the chance to sit down at the end and enjoy some of the sweet local produce. The next stop is the rice village of Ban Saladin, where you can try tasty treats; such as, crispy rice crackers covered in pork as well as salted goose eggs, a local speciality. The residents are a mine of information about how local foods are farmed and prepared and are eager to offer samples to try. Most people leave loaded with bags of food to take home.

The last stop on the canal is the orchid farms that grow blooms for export. Thai orchids are famous for their beauty and the kingdom is the biggest exporter of these flowers in the world. They only require a good supply of water to grow and many are seeded in coconut husks or are simply suspended in baskets. If you're looking for some blooms to decorate your home, this is the place to come as you can get the loveliest flowers, fresh cut or seedlings for great prices.

All that's left for the day is to enjoy the boat ride back to Wat Suwannaram, and watch the storks hunting in the pondweed for food. Their foraging seems easy compared to the long hours and hard work put in by Khlong Mahasawat's local famers, which is why these agro-tourism trips are interesting and vital – they open visitors' eyes to the rural soul of the kingdom, so they can experience Thainess in its truest form.

However, the tourists are not increasing from the part. The researcher is interested in how to understand the factors that has increase the number of tourists in Thailand and aboard.

# **Objectives of this research**

- 1. To study ecotourism management in Nakornpathom province.
- 2. To study the level of participation in eco-tourism

The limitation

The researcher focused on Khlong Mahasawat, a famous canal in Nakhon Pathom.

## LITARAUTURE REVIEW

# **Nakorpathom Province**

Nakhon Pathom is a province 58 km from Bangkok (Tourism Authority of Thailand, 2020). It is claimed as one of the oldest cities and the center of civilization in the Dvaravati Kingdom. The city's area is 2,168.327 sq. km with 7 districts. Wat Phra Pathom Chedi Rachavaramahaviharn is the royal Temple in which the biggest and highest stupa of Thailand is located. The stupa is also the symbol of the city. Visitors can visit Wat Rai Khing in Amphoe Sampran. The temple houses the Buddha image in the attitude of subduing Mara or 'Luang Pho Wat Rai Khing.' There is a market every Sunday. With the shady and pleasant area, people can take a walk and feed thousands of fish. In the temple, there is a museum exhibiting antiques found in this local area.

For those who love Flowers, you can go to Sampran Riverside which is the Garden in Amphoe Sampran near the Nakorn Chaisri River. There are many species of flowers and performances from local people. On 1-7 September of every year, you will be invited to join Nakhon Pathom Food and Fruits Festival at Phra Pathom Chedi's area. There are local and agricultural products to purchase, such as pomelos, coconuts, guavas, bananas, sweet sausages, crispy pork, and pork floss.

Nakhon Pathom is a small province located just 56 km west of Bangkok. The province features an ancient religious structure called Phra Pathom Chedi, the first religious Landmark that signified the introduction of Buddhism into Thailand. Nakhon Pathom is also renowned for its abundant fruit varieties and famous regional cuisine.

Formerly situated by the Sea, the city prospered during the Dvaravati civilization, which existed between the 6th and 11th centuries C.E. According to Archaeological findings, Nakhon Pathom was the first city to be exposed to the influence of Buddhism. From the Phra Pathom Chedi and other remains discovered in the city area, it is believed that the city was a center of civilization in that era and that people of different races settled in Nakhon Pathom. However, a change in the course of the river caused a draught that forced the people to

migrate, leaving Nakhon Pathom deserted for hundreds of years until the reign of King Rama IV. While His Majesty was in monk-hood, he traveled to Nakhon Pathom and discovered the Phra Pathom Chedi. When King Rama IV ascended to the throne, he commanded that a bell-shaped Chedi be built to cover the old Chedi. The surrounding area was also renovated and improved. During the reign of King Rama V, the construction of railways to the south began; King Rama V also commanded that the town be relocated from Tambon Thana, Amphoe Nakhon Chaisi, to the Phra Pathom Chedi area as it used to be. Nakhon Pathom has been there ever since.

An area of great Historical importance that features both archaeological and religious treasures, not least of which is Phra Pathom Chedi, the first religious landmark that signified the introduction of Buddhism to Thailand, Nakhon Pathom has a number of attractions that make it a fine day trip or stopping point on the way to or from Kanchanaburi. Most of Nakhon Pathom consists of plains with no mountainous lands, though a plateau rises up in the west. The plains along the Tha Cheen River (Nakhon Chaisi River) are the location of Amphoe Nakhon Chaisi, Amphoe Sam Phran, and Amphoe Bang Len. These fertile lands provide agricultural opportunities for the people, thus most of the residents earn their living from agriculture, plantations and farms growing food crops as well as fruit orchards. In fact, Nakhon Pathom is well known for pomelos, a fruit much like a grapefruit, and some Thais call Nakhon Pathom the sweet pomelo town.

## **Ecotourism**

Around the world, ecotourism has been hailed as a panacea: a way to fund conservation and scientific research, protect fragile and pristine ecosystems, benefit rural communities, promote development in poor countries, enhance ecological and cultural sensitivity, instill environmental awareness and a social conscience in the travel industry, satisfy and educate the discriminating tourist, and, some claim, build world peace.

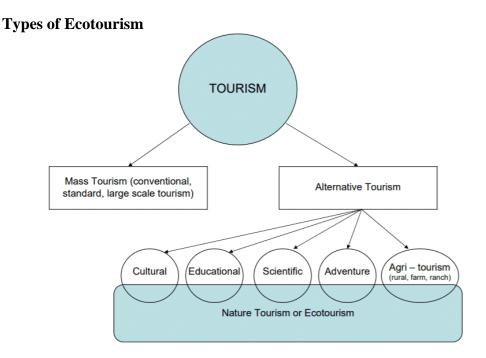
Ecotourism is a form of <u>tourism</u> which attempts to minimize its impact upon the environment, is ecologically sound, and avoids the negative impacts of many large-scale tourism developments undertaken in the areas which have not previously been developed.

# **History**

The origins of the term 'ecotourism' are not entirely clear, one of the first to use it appears to have been Hetzer(1965), who identified four 'pillars' or principles of responsible tourism: minimizing environmental impacts, respecting host cultures, maximizing the benefits to local people, and maximizing tourist satisfaction. The first of these was held to be the most distinguishing characteristic of ecological tourism. Other early references to ecotourism are found in Frangialli, F. (2002). work on national park planning for ecodevelopment in Latin America, and documentation produced by Environment Canada in relation to a set of road-based 'ecotours' they developed from the mid-1979s through to the early 1980s.

Ecotourism developed 'within the womb' of the environmental movement in the 1970s and 1980s. Growing environmental concern coupled with an emerging dissatisfaction with mass tourism led to increased demand for nature-based experiences of an alternative nature. At the same time, less developed countries began to realize that nature-based tourism offers a means of earning foreign exchange and providing a less destructive use of resources than alternatives such as logging and agriculture. By the mid-1980s, a number of such countries had identified ecotourism as a means of achieving both conservation and development goals. The first formal definition of ecotourism is generally credited to Ceballos Lascurain in 1987.

cotourism is ecologically sustainable tourism that fosters environmental and cultural understanding, appreciation and conservation.



Fennell, D.A. and Ebert, K. (2004) considers that ecotourism exits within the broader classification of tourism types which, at an initial level, can be divided into the following types:

- 1. Mass Tourism
- 2. Alternative Tourism

Mass tourism we saw as the more traditional form of tourism development where short-term, free-market principles dominate and the maximization of income is paramount. The development of the tourism industry was originally seen as a desirable and relatively 'clean' industry for nations and regions to pursue. This was particularly true in terms of benefits in foreign exchange earnings, employment and infrastructural development such as transport networks. These days we are more prone to vilify or characterize conventional mass tourism as a beast; a monstrosity which has few redeeming qualities for the destination region, their people and their natural resource base.

This is not to deny that 'mass tourism' has caused problems, because it has. There has, quite justifiably, been a need to identify an alternative approach to tourism development that lessens the negative consequences of the mass tourism approach.

Thus the 'alternative tourism' perspective has become a popular paradigm. This alternative approach has been described as a 'competing paradigm' to mass tourism, but it can also be viewed as a complementary approach to tourism. That is, it is not possible to have 'alternative tourism' to. So, the discussion returns to a semantic debate, perhaps it is best to accept that alternative tourism is a natural outcome of the maturing understanding of tourism development and its strengths and weakness. Fennell states that:

Alternative tourism is a generic term that encompasses a whole range of tourism strategies (e.g. appropriate, eco, soft, responsible, people to people, and green tourism) all of which purport to offer a more benign alternative to conventional mass tourism in certain types of destinations. However, Weaver quite rightly points out that there are also many criticisms of alternative tourism. It is clear that just because alternative tourism has developed as a reaction to the negative consequences of mass tourism it is not necessarily less harmful or better than its alternatives.

#### **METHODOLOGY**

In research on participatory ecotourism management in Nakornpathom province that conducted the following steps:

1. Population and sample

The population is the toursits in Nakornpathom province by 2,761,374 people in 2017 (National Statistic Office, 2017). The sample groups were the 400 people within taro Yamane at 95% significance level.

2. Data collection

This study relies on data from primary data sources and secondary data.

## **DATA ANALYSIS**

In this research, the researcher analyzes the data by verifying the completeness of the data. Grade markers are then assigned to statistical processing. In the following order:

- 1. General personal information Statistical processing Percentage Mean (Mean)
- 2. Information in Section 2 that consists of information on ecotourism management and Information on participation in ecotourism Management. These data obtained from the questionnaire evaluates the rating scale. The analysis is performed in the form of frequency, mean, and standard deviation and compare the level of integration level. Ecotourism management Classified by personal factors.

## RESEARCH RESULT

Research results on participatory study in Ecotourism Management in Nakornpahom province as found thatin Table 1 and 2:

**Table 1:** General information

Description	Number	Percentage
Gender		
Male	185	46
Female	215	54
Age		
< 20 years old	5	2
21-30 years old	59	14
31-40 years old	115	29
41-50 years old	182	45
50 years old>	39	10
Montly Incomes		
< 9,000 B	2	1
9,001 – 15,000 B	46	12
15,001 – 30,000 B	115	29
30,001 – 45,000 B	205	50
45,001 >	32	8
Occupation		
Owner business	22	6
Employees	202	50

Description	Number	Percentage
Government Employee	137	34
Retired	39	10
Length of living		
1 day trips	319	80
2-3 days	72	18
3 days >	9	2

Table 2: The ecotourism management

<b>Ecotoursim Management</b>	Mean	Level
1.Management		
Community organization	4.2	High
Information	3.8	Medium
Public Relation	2.5	Low
Facility	3.2	Medium
2. Learning		
Flower Decoration	3.2	Medium
Thai food	4.1	High
Thai silk	3.7	Medium
Agricuture	3.9	High
3. Natural Environment		
Cleanliness	2.7	Low
Atmosphere	3.5	Medium
Animals	2.8	Low
Living stlyes	3.6	Medium
3.Cultural Aspect		
Temple	3.5	Medium
Palace	3.6	Medium
Thai dancing	4.5	High
Thai musical	3.9	High

## **SUGGESTION**

Based on the results of the study on participation in ecotourism management. In the district of Nakornpathom Province has been found to be involved in ecotourism management. All the factors of the research applied to the planning and formulation of the strategy to benefit and potential, focusing on the process of participation to the community. Researchers have suggested the following for use:

- 1. Should support the development of natural areas and cultural traditions related to ecological conservation zone.
- 2. There should be rules and regulations governing the scope of the nature of the community.

# Community organization

- 1. Accept all people to participate and enjoy the economic benefits of ecotourism.
- 2. Organize a tourism system based on the lifestyle of local people and communities in the area.

# Management

- 1. It should be planned to improve regulations between public and private operators, as well as the public. By giving equal opportunity to action.
- 2. Sustainable management of the environment and the conservation of resources. Pollution prevention Control and develop sustainable tourism. *Learning side*
- 1. Create activities that provide opportunities for tourists to get close to nature and benefit directly from nature and lifestyle.
- 2. Provide knowledge about sustainable ecotourism management. To keep up with new knowledge always up to date.

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# AN ANALYSIS OF TOURISM EXPOSURE BEHAVIOR OF UNIVERSTY STUDENTS IN RANONG PROVINCE

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## **ABSTRACT**

Ranong ia a province in southern region of Thailand. It has many attractions which the tourists would like to travel and holidays for relaxing and enjoying for many activities. The development of tourism industry could be implemented in 2 ways: attraction development and marketing service. The development of tourism products should drives with advertisement by objective management. To understand the impact of media, therefore, we must remember that media consumption is often an active processing of information, not just a passive reception of media words and images. The influence of the media is neither blatant nor unqualified. Perhaps the most significant effects of media exposure come about after long-term, heavy use. Readers approach media products with a preexisting set of beliefs and experiences through which they filter media messages. Readers also occupy specific social positions that affect how they interpret the media. To understand the impact of media, therefore, we must remember that media consumption is often an active processing of information, not just a passive reception of media words and images.

The study on an analysis of tourism exposure behavior of university students in Ranong province with mainstream media exposure as television passing through the variable as birth place could be summarizes as follows:

1. The university students in the different of birth place are non-related to the tourism exposure behavior of university students in Ranong province with mainstream media exposure from television and the birth place of university students is non-related. Most of university students from Ranong province spent the time in the high level (2-7 days/week) as the same of university students from other provinces spent the time in the high level (2-7 days/week)

2. The behavior of university students in Ranong provinces is on the reasons for time spent on tourism news/scoop/contents from tevlvision are as follows: interesting head-lines news/scoop/contents, details of tourism news/scoop/contents, personal belief in tourism news/scoop/contents, rapid report in supporting news/scoop/contents, respectively.

In conclusion, the media as television, radio and newspapers educates university students on both inside and outside of the university. The media exposure in political news/scoop/contents makes the university students have the information for supporting in term paper and advanced learning. The university students could learn the political news/scoop/contents by viewing the television, reading the newspaper, and listening to the radio in the dimensions of time spent on political issues (days per week). The study could set and used as the tool for finding the relationship between the mainstream media exposure in political news/scoop/contents and the democratic political viewpoint of university students.

The factors should be taken by the other variables in the future study such as the message of tourism news/scoop/contents as influence factors on other mainstream media as newspaper and radio. In order to plan the tourism management plan in Ranong province in the future for tourism development in terms of education and economic and social development.

**Keywords**: Tourism, Media Exposure

## **INTRODUCTION**

Ranong ia a province in southern region of Thailand. It has many attractions which the tourists would like to travel and holidays for relaxing and enjoying for many activities. The new millennium has witnessed the continued growth of interests in how people spend their spare time, especially their leisure time and non-work time. Some commentators have gone as far as to suggest that it is leisure time – how we use it and its meaning to individuals and families- that defines our lives, as a focus for non-work activity. This reflects a growing interest in what people consume in these non-work periods, particularly those time that are dedicated to travel and holidays which are more concentrated period of leisure time. This interest is becoming an international phenomenon known as "Tourism": the use of this leisure time to visit different places, destinations and localities which often (but not exclusively) feature in the holidays and trips people take part in. (Page: 2009)

The core concepts of an analysis of tourism exposure behavior of university students in Ranong province for measuring passing through mainstream media exposure passing through television in terms of birth place by measuring time spent (days per week) on mainstream media as television.

The theoretical framework of the media exposure in tourism news/scoop/contents could be summarized in terms of measuring time spent (days per week) on mainstream media as television.

The sample group of this study is the university students from Suan Sunandha Rajabhat University in the College of Innovation and Management at Ranong Campus with the total number of 43. The multi-stage random sampling with questionnaires as the tool for collecting the data. The analysis is on the statistical method shown as frequency, percentage and chi-square test at the significant level = 0.05

Any Tourism may be defined as the sum of the processes, activities, and outcomes arising from the relationships and the interactions among tourists, tourism suppliers, host governments, host communities, and surrounding environments that are involved in the attracting, transporting, hosting and management of tourists and other visitors (Goeldner and Ritchie; 2012). Many developing countries which open society and dynamic economy assume tourism development as the country's economic development to be the way to increase the countries' income, building the job for people, including the businesses or activities concerning tourists in many tourist attractions.

Many developing countries which open society and economy assume tourism development to be the way to increase the countries' income, building the job for people, including the businesses or activities concerning tourists in many tourist attraction. Tourism is still a derived demand to many businesses on both direct business such as transportation and accommodation and indirect business such as local craft production. Tourism is an important role and significant activities to development the country's economy. The Thai government attempts to formulate policy to promote the expansion of Thai tourism industry and also to increase tourists' demand to spend more money in Ranong province by expanding

the length of stay in Thailand. That is to expense for many activities in everywhere in Ranong province. Moreover, tourists could spread the prosperity from their home provinces to Ranong attractions and learn the local culture from Ranong attractions back to their home provinces.

The development of tourism industry could be implemented in 2 ways: attraction development and marketing service. The development of tourism products should drives with advertisement by objective management.

Experiences and their meanings usually appeal to tourists' high order needs, such as novelty, excitement and enjoyment, prestige, socialization and learning, and contribute to the enhancement of a sense of well-being (Prebensen, Chen, and Uysal; 2014). To become a tourist, a person must travel away from home. However, not all such travel qualifies as tourism. The World Tourism Organization (UNWTO) and most national and subnational tourism bodies hold that the travel must occur beyond the individuals "usual environment". Since this is a highly subjective term that is open to interpretation, these bodies normally stipulate minimum distance thresholds, or other criteria such as state or municipal residency, which distinguish the "usual environment" from a tourist destination. The destination and use of such thresholds may appear arbitrary, but they serve the useful purpose, among others, of differentiating those who bring outside revenue into the local area (and thereby increase the potential for the generation of additional wealth) from those who circulate revenue internally and thereby do not create such as effect (Weaver and Lawton; 2014). The economic significance of tourism is beneficial to the global economy and to individual economies. The substantial expenditure associated with tourism flows makes a substantial economic contribution to Ranong or host province.

The immersion in television culture produces a "mainstreaming" effect, whereby differences based on cultural, social, and political characteristics are muted in heavy viewers of television. The result is that heavy television viewers internalize many of the distorted views of the social and political world presented by television. For example, compared to the real world, television programs drastically underrepresent older people, and heavy viewers tend to similarly underestimate the number of older people in society. Television portrays crime and violence much more frequently than it occurs in real life, and these television portrayals seem to influence heavy viewers in this area as well. Heavy viewers are more likely than moderate or light viewers to believe that most people cannot be trusted and that most people are selfishly looking out for themselves. (Gerbner, 1984)

The influence of the media is neither blatant nor unqualified. Perhaps the most significant effects of media exposure come about after long-term, heavy use. Readers approach media products with a preexisting set of beliefs and experiences through which they filter media messages. Readers also occupy specific social positions that affect how they interpret the media. To understand the impact of media, therefore, we must remember that media consumption is often an active processing of information, not just a passive reception of media words and images. (Croteau and Hoynes, 2014)

Public opinion is the viewpoint of the public regarding a particular matter, especially the influence viewpoint of university students as the future way of life. Viewpoint research plays an important role in understanding how thoughts, views and beliefs are formed, changed, and measured. By this way, media exposure makes the university students to share another person's feelings and emotions as if they are public thoughts, views and beliefs. Tourism exposure behavior could wake up the tourism thoughts, views and beliefs for demanding the tourism viewpoint which makes the university students' behavior passing of tourism exposure behavior. The research review will be summarized into 2 parts: tourism and mainstream media as television in tourism.

## **OBJECTIVES**

- 1. To analyze the relationship between the mainstream media exposure as television in Ranong tourism of university students in Ranong in terms of measuring time spent (days per week) on mainstream media as television.
- 2. To analyze the factors that affected tourism exposure behavior of university students in Ranong province with mainstream media exposure passing through television in terms of birth place.

## **CONCEPTUAL FRAMEWORK**

#### **Tourism**

Tourism is defined as the activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes not related to the exercise of an activity remunerated from within the place visited. The use of this broad concept makes it possible to identify tourism between countries as well as tourism within a country. "Tourism" refers to all activities of visitors, including both "tourists (overnight visitors)" and "same-day visitors."(Page: 2009, www.world-tourism.org)

The movement of tourists between residence and a destination, by way of a transit region, and within the destination, comprises the primary flow of energy within this system. Other flows of energy include exchanges of goods (e.g. imported food to feed tourists) and information (e.g. tourism-related social media exchanges) that involve an array of interdependent external environments and systems in which the tourism system embedded. The experience of the tourist, for example, is facilitated (or impeded) by the economic and geopolitical systems which, respectively, provide or do not provide sufficient discretionary income and accessibility to make the experience possible. (Weaver and Lawton: 2010)

There are five main reasons why measuring tourism is important: (Page: 2009)

- 1) To understand why and how significant it is for certain destinations, countries and regions in terms of the scale and value of the visitors.
- 2) To understand how important it is for countries in terms of their balance of payments, as it is an invisible export that generates foreign currency and income.
- 3) To assist the tourism industry and governments in planning for and anticipating the type of infrastructure which is required for tourism to grow and prosper.
- 4) To assist in understanding what type of marketing is needed to reach the tourist as a consumer, and what factors will influence tourists to visit a country or destination.
- 5) To help the tourism industry make decisions about what type of action is needed to develop tourism businesses and further develop in this area.

Weaver and Lawton (2010) said that Many of the generic factors that influence the growth of tourism such as economic factors, social factors, demographic factors, transportation technology factors and political factors etc. Given the rapid change that is affecting all facets of contemporary life, any attempt to make medium-or long-term predictions about the tourism sector is very risky. It can be confidently predicted that technology will continue to revolutionise the tourism industry, pose new challengers to tourism managers and restructure tourism systems at all levels. However, the nature and timing of radical future innovations, or their implications, cannot be identified with any precision.

Moreover, a desire to seek our exotic and unfamiliar venues has been an important motivating force for tourism throughout history. However, similarities in culture, language and religion also exert a powerful "pull" influence in some types of tourism.

#### **Mainstream Media as television**

Media exposure as one of the communication behavior which composes of 4 patterns. That are media exposure, communication processes, Motivational gratifications, and Media credibility and preferences (McLeod and O'Keefe; 1972). Becker (1983) defines media exposure as the meaning of the information exposure as follows: Information Search, Information Receptivity, and Experience Receptivity.

In case of information for tourists, Weaver (2010) agreed that this function is distinct from promotion in its emphasis on providing basic information to tourists who are already in the destination through tourist information centers at key destination sites and gateways. Related functions are usually informed by and directed towards the overriding strategic objectives of the destination tourism organization (DTO).

The role of the media should provide communicative spaces where people can openly participate in discussion and debates. The metaphor of space defines the social, political, and physical configurations in which positions of power, domination, and marginality are negotiated and reproduced (Barnett, 2003). However, in authoritarian societies, or during periods of conflict, there is an inclination by the powerful sectors toward controlling the communicative spaces. Therefore, from a Gramscian perspectives, the media have to be interpreted as instructions for disseminating and reinforcing the hegemonic perspective. (Ndlela, 2010)

In general, citizens' media involve considerable occurrences of representation and participation of the "ordinary" (people, issues, and activities) in social and political reality, mediating complex power relations and configurations across space and time; they are bottom-up locals "in which citizens enter into disputes about who does and who ought to get what, when and how" (Keane, 1998).

Faced by multifaceted problems, the government fundamentally shifted the communication spaces. It did so by emasculating the mainstream national media, attempting to influence public opinion in its own favor by directing the state-owned newspaper oligopoly to serve out government propaganda; by regulating the reception of international media in the country; and by restricting external communication channels. The government also developed media policies that undermine the growth of the media and their possible extension to new areas, creating an environment of insecurity that scares away local investors, and put up stringent conditions that effectively discourage foreign investment and limit access to the media.

In the globalized world, learning democratic political knowledge is becoming an important element and tool in establishing effective relations and interaction with people of all countries. Learning and understanding political viewpoint and culture would lead to ensure friendly and constructive relationship and next to social and economic engagement at last. For example, the economic significance of tourism is beneficial to the global economy and to individual economies, including its impact on the relationship between the economic, social, culture, and politics (Sriupayo; 2016).

For higher education, university students have the time to spent for following the tourism events of all counties, collecting the data in the tourism news over the world, and reporting the term paper report to the class. The study is to use the benefits of media exposure by tourism socialization to form the information, the idea, the knowledge, and the wisdom in tourism process as follows: to transfer the information of tourism knowledge and understanding; to set the tourism agenda; to influence and cultivate tourism exposure behavior and to develop the country's tourism.

Having realized the impact of higher education development on producing quality human resources to keep pace with the challenges brought about by globalization, in teaching, risk requires a special kind of trust in processes as well as university students. Teaching in the knowledge society is a need to show tourism projects for reporting in terms paper of university students as the agenda for educational improvement with a renew assault on tourism impoverishment.

## **METHODOLOGY**

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#### RESULTS

The analysis of sample group in the research named "an analysis of tourism exposure behavior of university students in Ranong province" is shown in the fact finding as follows:

Table 1
Birth place of sample group

Item	Category	Number	Percentage
Birth place	Ranong Province	12	27.9
	Others	31	72.1

Table 1, the sample group is 43 university students which divided into the items as birth place. Birth place divided into 2 categories: Ranong province and other provinces. The results are as follows: Ranong province has the example of university students is 12 or 27.9 percent of sample size as 43 persons and other provinces is 31or 72.1 percent of sample size.

Table 2
Tourism exposure behavior of sample group

Time spent on tourism exposure from	Number	Percentage
television	(persons)	
Low time spent (0-1 day/week)	13	
High time spent (2-7 days/week)	30	

Table 2, The tourism exposure behavior of sample group classified by the time spent on tourism exposure from television which shown in the table 2.

The hypothesis testing in 3 relationships between the mainstream media exposure in tourism news/scoop/contents on television is shown and the factors that affected the mainstream media exposure in tourism news/scoop/contents of university students are shown in the table 3as follows:

## **Television**

The study on factors that affected tourism exposure behavior from television which classified by birth place could be summarized as follows:

Table 3
Time spent on tourism news/scoop/contents from television and birth place

Time spent on tourism	Birth	Place	
exposure			
from television (days/week)	Ranong	Others	Total (persons)
Low time spent (0-1 day/week)	5	8	13
	(38.5 %)	(61.5%)	(100%)
High time spent (2-7	7	23	30
days/week)	(23.3%)	(76.7%)	(100%)
Total (persons)	12	31	43
	(27.9%)	(72.1%)	(100%)

Chi-square = 1.07, d.f. = 1, sig  $(\alpha)$  = 0.05

Table 3, the media exposure as time spent on tourism news/scoop/contents from **television** (days/week) of university students in Ranong province, the Chi-square statistic shows the relationship between time spent on tourism news/scoop/contents from television and the birth place of university students is non-related. Most of university students from Ranong province spent the time in the high level (2-7 days/week) as the same of university students from other provinces spent the time in the high level (2-7 days/week)

Table 4
The reasons for time spent on tourism news/scoop/contents from tevlvision are as follows:

Reasons for time spent on tourism news/scoop/contents from television	percentage
(1) interesting head-lines news/scoop/contents	52.4
(2) details of tourism news/scoop/contents	19.0
(3) personal belief in tourism news/scoop/contents	11.1
(4) rapid report in supporting news/scoop/contents	11.1
(5) others	6.3

In table 4, the behavior of university students in Ranong provinces is on the reasons for time spent on tourism news/scoop/contents from tevlvision are as follows: interesting head-lines news/scoop/contents, details of tourism news/scoop/contents, personal belief in tourism news/scoop/contents, rapid report in supporting news/scoop/contents, respectively.

#### **CONCLUSION**

The study on an analysis of tourism exposure behavior of university students in Ranong province with mainstream media exposure as television passing through the variable as birth place could be summarizes as follows:

- 1. The university students in the different of birth place are non-related to the tourism exposure behavior of university students in Ranong province with mainstream media exposure from television and the birth place of university students is non-related. Most of university students from Ranong province spent the time in the high level (2-7 days/week) as the same of university students from other provinces spent the time in the high level (2-7 days/week)
- 2. The behavior of university students in Ranong provinces is on the reasons for time spent on tourism news/scoop/contents from tevlvision are as follows: interesting head-lines news/scoop/contents, details of tourism news/scoop/contents, personal belief in tourism news/scoop/contents, rapid report in supporting news/scoop/contents, respectively.

In conclusion, the media as television, radio and newspapers educates university students on both inside and outside of the university. The media exposure in political news/scoop/contents makes the university students have the information for supporting in term paper and advanced learning. The university students could learn the political news/scoop/contents by viewing the television, reading the newspaper, and listening to the radio in the dimensions of time spent on political issues (days per week). The study could set and used as the tool for finding the relationship between the mainstream media exposure in political news/scoop/contents and the democratic political viewpoint of university students.

The factors should be taken by the other variables in the future study such as the message of tourism news/scoop/contents as influence factors on other mainstream media as newspaper and radio. In order to plan the tourism management plan in Ranong province in the future for tourism development in terms of education and economic and social development.

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# INNOVATION IN PRINTING BUSINESS

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### **ABSTRACT**

The objective of this research is to study the innovation factors which are influence the competitiveness of printing business. This research is documentary research by taking the secondary data to apply with education, searching, data analysis and synthesized information from document and related research in order to get the factors influence the competitiveness of printing business. From literature review found that 1) Factor of innovation that influence the printing business has composition 4 parts such as process innovation, product innovation, service innovation and innovation mindset and 2) Competitiveness in printing business has 4 components are finance, customer, internal working process and learning and development

**Keywords**: Innovation/ printing business/ competitiveness

# **INTRODUCTION**

The most of printing business is create the value added with entrepreneur to run various business which entrepreneur can create the marketing value both domestic and export to foreign countries. In the past, the entrepreneur had even though taken innovation to apply to printing job for improvement the printing quality. Entrepreneur all had to face the challenge more from changing technology that affect the customers behavior and business operation especially the role of communication technology and internet system which are widely used and increase rapidly as a result affected the entrepreneur running business related to the traditional printing media have to close their business due to the number of readers significantly decline. Most of readers turn to read the news or information through internet which is the convenience to access information at any time, there is variety and speed up to date accordance with Kasikorn Thai Research (Jun, 2017) said digital technology trend and customers behavior changed rapidly. These factors affect printing entrepreneur business operation. Online is more popular as a result traditional publishing and printing business have to adjust the business structure either changing business model or even merger or closing business. Although they still have customer both government office and private, they are served by printing service i.e. manual, document etc. in order to use in activities which are training, seminar, advertising, public relation including new printing model due to respond the customer's requirement rapidly, good quality and optimize cost that customer dose. However, entrepreneur faces the intently competition caused there are huge number of printing providers that become significant competition in price of product. Therefore, in the

competitive situation of printing industry currently is facing all round challenge. Entrepreneur is necessary to find innovation affected the competitiveness of printing business such as concern technology selection and printing equipment trendy that assists business operation more efficiency, work fast and sharp because of the quality of printing job which is important factor affecting the customer's satisfaction. If quality and standard of job cannot be delivered to customer, it certainly effects negative sales on the other hand if the quality of work come out is good, the printing's image will be good as well (Thai Printing Association, 06th August, 2020). Creation the confident to customer and delivery printing work in time are the most important. Focus on the printing quality control which has the process from before printing, during printing and after printing have to improve and develop the service to new model aligning with the customer's behavior that they need more accessing information of product and service by utilizing from internet and social media network which give the benefit of instant and convenient communication at any time included advertising, public relation, receive ordering, coordination, job quality inspection and increase payment channels to meet a wide range of customer' need which is the guideline for entrepreneur to develop products, management, new providing service model, using modern machinery, re-organization of business and improve the operation to some type of printing business that can grow and survive also to be able to continue operation

# **Objective**

To study the innovation factor which is influence the competitiveness of printing business.

## LITERATURE REVIEW

## 2.1. Innovation

Drucker, P.F. (2002) said that innovation is the important tool for entrepreneur including the general entrepreneur, government and start up by only one person to create competitive potential in business to become wealth from existing resource or created new by Somneuk Eeujirapongpan and team (2014) gave the definition of innovation which mean new thing happened from using knowledge, skill, experience and creative to develop which may the new product and service or new process caused the benefit in economic and society; however, providing the meaning of innovation, in the other view such as technology, management which have difference in sub-section but mainly meaning is not different. Innovation classification can be divided into many categories according to the scope and objective to adopt. Common classification and apply to research which is the meaning innovation consist 3 key issues 1). Newness to accept the innovation feature 2). Economic benefit and 3) Using knowledge and creativity idea; innovation is the creating new thing that may be new product, new process, new service model and acceptance to develop innovation in order to get economic benefit so it is the most necessary for entrepreneur related to Kanlaya Keawma (2017) said that the creating innovation strategy to increase the competitive potential of small enterprise through Thailand 4.0 Era that concerns the marketing communication which is an innovation in digital age and accordance with Thailand 4.0 government's policy to drive nation's economy in the future by changing the operation process automatically and increase new income through product and service in small enterprise which is ready to compete with other manufacturers in the world for full potential of each business group The liberalization causes many types of small enterprise disappear that they are threated from large multinational cooperation, capital availability and higher technology than all parties so they should find the innovation strategy which has highest efficiency for operation in the future. Therefore, innovation is factor that influence competitiveness related to Dolporn Cheumklang and Panatporn Reungcherngchoom (2017) said that composition indicator to evaluate the competitive potential of productivity such as quality, creative, respond customer's need and innovation which play a role to make entrepreneur success. Creating innovation strategy assists the company to attract the customer excited, higher efficiency than competitor and creating new product line (Bowonder, B., Dambal, A., Kumar, S., & Shirodkar, A., 2010) the creating innovation of Thais entrepreneur may face the problem and challenge. Nattawat Kerdsrii (2014) studied about the challenge and limitation of small and medium enterprise by innovation-driven in Thailand that can summarize the factors that are the barrier to develop innovation of small and medium enterprise in Thailabd as follow 1). Inadequate government support 2). The higher cost of innovative development and research and development (R&D) and 3). Difficulty in obtaining funding. However, Urbancova, H. (2013) said from study result, the competitive advantage through innovation and knowledge must aware that successful innovation does not come from a single action but it is the people in the organization that is the key factor to play a role to create innovation. Besides, innovation will be succeeded when it is supported by top management and creative team consisted people who have knowledge and developed. From study show that the ability to create technological innovation has relationship and affect the competitive advantage and company efficiency shown on illstration 1 Ability to create the technological innovation. Most of them are internal and external factor of the company. If relying solely on the implementation activities in company, it is difficult to bring the innovation so it is necessary supported by funding source and knowledge from external source (Lahovnik, M., Breznik, L.,2014)

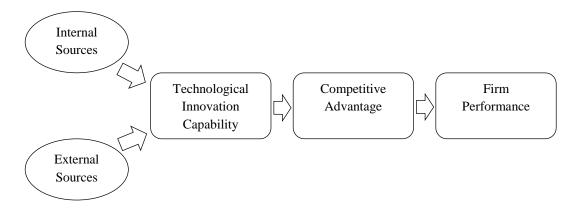


Figure 1. Operational Model of the Influence of Innovation Capabilities on Competitive Advantage and the Firm's Business Performance Sources: Lahovnik, M., Breznik, L., 2014.

In the printing business have to operation to align with customer's need in service process such before and after service which has to operate from receiving order process, sourcing materials in production, design, production, keep and protect of quality product safety, storage period, transportation, communication to quality customer, delivery and providing service for customer. Entrepreneurs are necessary to find, create and develop innovation for competition in business including supply chain capability. Innovation impact the business capability consists as follow

#### 2.1.1 Production Innovation

Production innovation means creation, new product development by new idea to get the economic benefit to business. It has the unique and using as a prototype product in production. From study of Coles, R. (2013) found that innovation and demand trend of paper and cardboard packaging market. Nowadays, the environmental and sustainability factors are more the key factor influence, packaging design optimization will concern the necessary and balancing with customer's need including intelligent packaging development and compostable packaging and overview of innovative packaging technology will be used or made from paper and cardboard paper; therefore, running printing business has to concern the printing technology efficiency, low cost, quality and up to date particular quality of publications which is the key factor affecting the customer's satisfaction. If quality and standard of job cannot be delivered to customer, it will certainly have negative effect on sales on the other hand if the quality of work come out good, the printing's image will be good as well (Thai Printing Association, 06<sup>th</sup> August, 2020).

## 2.1.2 Process Innovation

Process innovation means new process model may be hidden in product innovation or some part of new technology nevertheless the most is the process because process that involved the method and production process and management system developed to be innovation by new technology or technological innovation, this is the ability of process innovation, it may be a practical adaptation to align with using new technology that is changed or applied to production process and creating new product and service of business that Kritaya Sungkasem, Kanita Wanasuk and Wocharawich Ram-Intra (2017) said that process innovation is the adaptation concept or new method of selecting tools, how to produce, creating the distribution channels or organization management model that affect production process and overall operation had noticeably higher efficiency accordance with the research of Becker, S. O., & Egger, P. H. (2013) found that both product innovation and process innovation have trend to increase the company's export. Product innovation is the key factor for entering market and process innovation assists to maintain the market share; moreover, runing printing business has to focus on the job quality audit process such as before printing, during printing and after printing that make the job to meet the customer's satisfaction or cuases the word of mouth and repeat service and increasing payment channels that can respond various customer's need such as QR code, online banking, payment through application etc.

# 2.1.3 Service innovation

Peera Charernporn and Supawat Chocksawadpisal (2019) said that service innovation mean service product or service process that is the outcome from technology or process which is the improvement of concept development and presentation of significantly providing service better in service company not only private and government service sector that are not marketed but also production industry produce in the role service innovation which can create the adding value by using less resource through participant in network; therefore, there is the last goal to create value added which is the activity process to run business by focusing customer's satisfaction in the process from before, during and after providing service or doing transaction to create business value distinguished competitor. Service innovation is the concept that extends from value chain or smoothly delivering product and service process to customer by adding creative idea, packaging, service, immediately respond customer's need, providing high efficient delivery product system, using internet system and digital to serve customer (Chatchapol Songsontornwong, 2016) Providing new service model should do through social media which have a huge number of users and growth continuously i.e. Facebook, Twitter, Youtube, Line, Instagram etc. These are the providing service process to align with the customer's behavior who need more product and service information by using the benefit from internet finding product and service as their need and it is helpful for convenience and fast communication day and night

# 2.1.4 Innovation adaptation

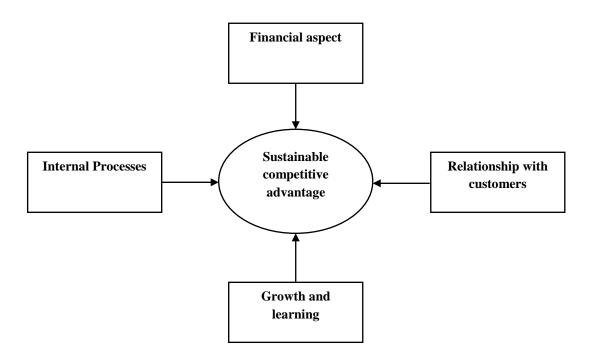
Rogers, Everett M. (1983) said that making decision process bringing to confirm or refuse through using innovation which is the finding information activity and data processing in order to motivate each person's confidence both advantage and disadvantage of innovation that they have 5 processes are 1). Finding knowledge to apply for making decision that accept or refuse that innovation will be applied 2). Persuasion to create positive attitude will be applied 3). Decision 4). Innovation is applied and 5). Encourage confirmation or rejection of innovation. The principle of making decision process become using innovation also still can be explored new or changed or revised by user. Decision period of innovation is the time spending for going through the innovation making decision process by Talukder, M. (2012) studied the factor affecting the adoption of technological innovation for each Austarian staff to study the organization where is successful to apply innovation to work, understanding who has the potential adoption and factor that influence making decision of innovation adoption. Research result shown that innovation adoption of each person is influenced two social factors which are colleague and social network. At the same time it shown innovation of each person is influenced from demographic factor that has inherent in that person. In term of running printing business is necessary to develop person who has potential and ability to explore and apply innovation to work

Summarize that innovation means the new thing occurrence from creative idea which may be the new product, new service or new process caused the economic and social benefit and it is key factor for entrepreneur who will create the competitive potential of business to be wealthy. By the meaning of innovation consisted key issue such as newness which is accepted thing that it is the innovation feature, economic benefits and knowledge and creativity idea that innovation affects business operation ability consisted the process innovation, product innovation, service innovation, and innovation adoption

# 2.2 Competitive advantage

Poorter, M.E, (2011) said that competitiveness of nation deepened on the capability of industry to search and raise level the capability of industrial sector. Entrepreneur would be gotten benefit from pressure and challenge caused the competitive with competitor. Entrepreneur was received benefit from creating competitive advantage from stronger domestic competitors Kaplan, R. S., & Norton, D. P. (2005) said that efficient performance assessment by Balance Scorecard would help company manager to view 4 key issues to run business that the assessing result will answer fundamental for 4 questions such as customer perspective how do customer see the company. Inside perspective know what is the strength of company? Innovation and learning perspective by answer the question, Can company continue improve and create? And financial perspective, how do you know the shareholder perspective to company? Part of Poveda-Bautista, R., Baptista, D. C., & García-Melón, M. (2012) said that competitiveness, capability and organization management system which is the concept that many companies use the self-assessment since the end of 20th century leading to the improvement of own company including using industrial comparison or nation with the aim of being competitive. In the future, the measurement of entrepreneur competition depending on the financial indicator only. Recently it is included other factors such as innovation, learning and entrepreneur's ability, indication and so forth. Rahman, A., & Ghafeer, N. A. (2014) studied using Balance Scorecard method is management method and performance assessment to apply successful impact assessment in term of industrial company competition, evaluating achievement competitive advantage through company to get win competitor capabilities and response assessment with dynamic of competitive

environment that they are operating and guaranty to encourage competitiveness of company to related with Mavlutova, I., & Babauska, S. (2013) said that Balance Scorecard concept is the assessing performance tool that globally company recognized and competitiveness assessment and balancing index indicator of company. Latvia health care is not use all key indicators assessment for assessing the increased competitiveness of company to analyze company health care including evaluating factor that is significant for patient selection. Company health care, research result found that intangible asset is significant and has valueadded to company management. The indicator to support that intangible asset has market value added as a reason that the company has the competitiveness as well and Balance Scorecard can help operating system management of company health care better due to the most those business need good management strategy. The studying of Jirayu Thupsin, Wanchai Suktam, and Surasuk Chamarum (2018) found that creating the learning organization relate and impact the innovation ability of company including ability of product innovation, marketing innovation, process innovation, behavior innovation and strategic innovation leading to creative innovation and wealth and sustainability competitiveness in the long run. Many companies concern standard process to get competitiveness. If it has the competitive advantage, it will get the sustainable benefit to organization and Hakkak, M., & Ghodsi, M. (2015) studies competitive advantage and impact assessment of Balance Scorecard to apply the measuring company performance. Research result from data analysis by using the structural equation model found that Balance Scorecard has positive impact to sustainable company competitiveness shown as illustration 2. The components of Balance Scorecard impact the creating sustainable company competitive advantage



Iullstration 1 Components of Balance Scorecard affect sustainable competitive advantage Sources: Hakkak, M., & Ghodsi, M. (2015)

Therefore, balance Scorecard is the one of evaluation method of impact on successful as competitive industrial company that evaluating competitiveness of printing and packaging business as follow;

#### 2.2.1 Fianancial perspective

Financial perspective means operation assessment from financial result measure that reflect the company's strategy and how dose operation to contribute the minimum outcome by hitting the financial goal is the fundamental indication that show that is the representation survival successful and grow of prosperity of company. In general financial goal assessment will involve profitable, growth and increased stakeholder value through survival of appraisal company from cash flow, successful of the sales growth by quarterly and operating income including steadily increasing market share

# 2.2.2 Customer Perspective

Customer perception means evaluation from customer's perception of view what customer thinks about the company that affect the customer's satisfaction. Most of customers view concern the time delivery product and service sine the company receive the order till the actual time to delivery product and service to customer, quality of product and service, product and service cost and efficiency and service of the company

# 2.2.3 Internal Perspective

Internal perspective view mean operating evaluation of internal working process that should consider internal process in the company which is key factor affecting customer's satisfaction due to it most effects operation such as factor affecting the reduction of cycle time, product and service quality development, staffs skill, productivity and so forth

# 2.2.4 Learning and Growth Perspective

Learning and development means the assessing the performance of the company's ability about innovation and learning is directly related to adding value to company which assessment is focused company's ability to develop and launch product rapidly. Product development that company expect to generate a huge number of sales in the future, continuously improve production in order to develop new product. The goal is to create new product rather than improve production of existing products

Summarize that competitiveness means the performance that are more efficient than the similar existing operation of entrepreneur through assessing competitiveness factors such as innovation, learning and entrepreneur's ability including management indication and so forth consisted of balancing assessment of overall picture of organization not only financial but also management process measurement, creating customer's satisfaction, increasing competitiveness and creating goal for organization more obviously. Balanced Scorecard is the one of assessing impact method. That Balanced Scorecard is the one of assessing the impact of succeeded competition of industrial company. Assessing competitiveness of printing business components are financial perspective, customer perspective, internal process perspective and learning and development perspective

# RESEARCH METHODOLOGY

This research is the documentary research by using secondary data from documents and related research in the study, analysis and synthesis data in order to get the components of each factor of innovation that influence the competitiveness of printing business

## RESULTS AND FINDINGS

Study result of innovation that influence the competitiveness of printing business. From study found that innovation that influence the competitiveness of printing accordance with the competitive situation of printing industries where are currently facing and all around

challenge; therefore, entrepreneurs are necessary to find innovation affecting the competitiveness of printing business to develop product, management and providing new service model, using modern machinery and improve activity structure and transforming the operation to some types of printing that can still grow in order to business to survive to be able operation continuously. It found that innovation consisted process innovation, product innovation, service innovation and innovation adoption. Competitiveness factors consisted financial perspective, customer perspective, internal process perspective and learning and developing perspective

#### **CONCLUSION AND DISCUSSIONS**

This statement has objective to study the factor of innovation that influence competitiveness of printing business. This research is the documentary research by using secondary data to apply in this study, search, analyze and synthesis data from document and related research in order to get the factor that influence competitiveness of printing business. From literature review found that factore of innovation means the new thing occurrence from creative idea which may be the new product, new service or new process caused the economic and social benefit and it is key factor for entrepreneur who will create the competitive potential of business to be wealthy. By the meaning of innovation consisted key issue such as newness which is accepted thing that it is the innovation feature, economic benefits and knowledge and creativity idea that innovation affect business operation ability consisted the process innovation, product innovation, service innovation, and innovation adoption. Competitiveness factors mean the performance more efficient than the similar existing operation of entrepreneur. The assessing competitiveness factors such as innovation, learning, ability of entrepreneur, management indication and so on. Including balancing assessment of overall picture of organization beside of financial measurement also it has to measure management process, creating customer's satisfaction, adding competitiveness and creating the goal for organization obviously. Balance Scorecard is the one of assessment impact method for successful of competing of industrial company that assessing competitiveness of printing business consisted by 4 parts are financial perspective, customer perspective, internal operation perspective and learning and developing perspective

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# A STUDY OF MEMORY CONSTRUCTION IN TOURIST ATTRACTIONS THROUGH FILM, "KRABI, 2562"

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#### **ABSTRACT**

The objective of the study of memory construction in tourist attractions through film, "Krabi, 2562". The film was directed by Ben Rivers and Anocha Suwichakornpong, The film represent the history of Krabi province through interviews, film interpretation, combining true stories and fiction. This film was presented by a variety of film elements with experimental film style. Which is analyzed through decoding in the structure of the semiotics and the study of history context with idealism of memory in culture.

From the study found 2 aspects: 1. Attractions like Krabi that were represent on the film "Krabi, 2562" were transformed into a historical symbol set of Thai society by conveying ideas through stories and myths. To be a metaphor for beliefs and understanding of history in Thai society that often consists of sacred myths combined with historical understanding. Reconstruction of superstition in films. Is to create a new legend with the power of films and viewers to compare the power of something that happened in the history of Thai society

2) The characteristics of the story structure and characters are compounded by incompatibilities and conflicting sets of concepts such as natural areas and the thing that building by human, the history and the myth, outsiders and local people, film and documentaries etc. Everything is fuzzy together. Is to erase the line in order for viewers to be aware, think and analyze for the historical viewpoint from the film by constructing their own information Which can interpret symbols to other areas in the context of Thailand.

**Keywords:** film, Krabi, memory, history, tourist attractions

#### INTRODUCTION

"Krabi, 2562", a film by Ben Rivers (b.1972) and Anocha Suwichakornpong, the film was developed based on the art that both filmmakers do together at the Thailand Art Biennale Krabi 2018 and they are developed into a feature film, a year later. The form of the film that was interpret history and myth with a new perspective in the tourist area like Krabi. They are represented into the content with history, hearsay, beliefs through the element of film and documentary.

This film is a collaboration of Ben Rivers, an artist and experimental filmmaker from London, his work has been screened in many film festival and art galleries around the world. There are also many nominations and awards. River's film often faded between the documentary style and the fiction film and Anocha Suwichakornpong, Thai film director who received many awards and screening around the world, her films often take history to interpret and represent them in experimental film style.

The film has a complex narrative elements of historical data and the independence of the storytelling structure. The unique story telling show the image of an ideal tourist destination has been reinterpreted by the narrative strategy of the film and documentary. The film was presentation resembling a collage that viewers have to research to be meaningful in their own meaning. For this reason, this film can be studied and interpreted in terms of the context of history and academics in film.



Fig .1 "Krabi, 2562" poster.

# 1. A Memory Construction: The relationship between 'memory' and 'history'

A Films are tools that can create memories that can be easily transferred to the public. The Memory construction with the films is therefore often used to present history. Astrid Erll, a memory in culture study, write of this point as "The relationship between 'memory'. and 'history'. Cultural memory is not the Other of history. Nor is it the opposite of individual remembering. Rather, it is the totality of the context within which such varied cultural phenomena originate. "Therefore, context is an important part in the interpretation of history. For example, the narrative style of the film "Krabi, 2562", which does not tell the story only mainstream history. It was construction from the beliefs, values, culture and memories of the local people in the area. The film is narrated in each scene in a cinematic style. That hides the implications of satirical tourism in shaping the historical identity of the area. History and myth have been retold for the benefit of tourism. This can be seen from the tour guide's scene telling a surreal legend all the time with the main character, along with cutting to the scene to see the shrine where the characters pry. But another scene, we saw foreign tourists looking at a shrine that stood out like a foreign object in the midst of nature.

The film uses a historical symbolic narrative that characterizes folklore with the local landscape to create some meaning. The film portrays many scenes with the irony of the original myth of the space with its superstition, with comparisons with reality, physical, geographical and natural features. From the reality of the area to create a new perspective on the tourist area like Krabi Thus, the narrative of the film creates a dialogue between memories. The legend of the locals and the locals with a different perspective on the historical series by presenting the narrative art of the film.



**Fig .2** The image of the participation of local people and tourists to the shrine in natural attractions

# 2. Krabi in History, Myth, Memories and Films:

From historical facts about discovering the ancient communities that Khao Khanap Nam and Krabi have brought as one selling point for tourism. In the film, we see a shot of a sculpture of a caveman in the middle of intersection traffic lights, While the overlapping sounds were the sound of the orderly marching before the next scene, we saw the parade of students. The students are one of characters in the film that wants to present as a symbolic in the context of the story line and caveman characters were reproduction in the film for irony symbolism of a folklore memory.



Fig .3 The picture of cavemen sculpture and the student's parade

Krabi in the memory of the local people being transmitted through the film. The film consists of stories such as unrequited love legend of Phra Nang Cave Beach, the ghost story in the hotel, the story of the old boxer and the landscape of Krabi province, which flourished in the olden days. These stories come from people in their hometowns who have been in the area for a long time. In which the film took the villagers to tell both the villagers are the local peoples, hotel employees, theater watchers and a local tour guide. We therefore know the memories of the villagers as individual memories rather than the mainstream memories that are recorded. They myth and individual memory is a story that has been told to the tourists to show their unique identity to create value for the place. Which appears in many scenes all over the films.



Fig .4 Picture of local people in documentary scene

As mentioned above in the film "Krabi, 2562", the composition consists of fiction films and documentaries. Which is like a visit by outsiders in both the Krabi area and the film's style. In the part of the fiction film, the professional actors were chosen to take the role. In the film telling the story of an elegant woman (Siraphan Wattanajinda), describing herself variously as a market researcher and a movie location scout, asks a local guide (Primrin Puarat) to show her around the tourist spots, such as the Phra Nang cave, a place reputed to aid fertility. She also goes to the disused movie theater where the former manager (Lieng Leelatiwanon) takes her up to see its rooftop "shrine to cinema". It is here that her parents first met, she claims. Meanwhile, an actor (Arak Amornsupasiri) is shooting a soft-drink commercial in the burning sun. But something very weird happens while roaming in the woodland between takes, the actor discovers a prehistoric caveman living in the forest. Caveman is a symbol of Krabi that was picked as a tourist attraction after finding ancient paintings in cave walls.



Fig. 5 The scene of a caveman and the scene of the actor being a caveman in the scene

The use of professional actors in the fiction scene is to show the outsiders visiting Krabi. It is like a collision between two types of stories: a documentary that tells the story of local people and fiction films narrative the stories of the people who came from outside the area. And it also created a new myths story when the female characters disappeared in the old cinema at the end of the film, the story was told in the documentary scene like real interview scene. The fuzziness between truth and fiction is an overlay of history and the present memory.

# 3. Cinematic Elements and The Interpretation

The film "Krabi, 2562", there are two important questions in the story. 1) The structure of the film, Where is the line of the genre in this film? And 2) From history, storytelling and myth, what is in the real narrative in this film? and what is the true identity of tourist attractions like Krabi?

The boundary of the film in Krabi, 2562. The film has no narrative structure rule or boundaries of storytelling because the film has improvised according to the director's mood to bring the elements of the plot that are fragmented and not continuous storyline. That is an alienation style for remove the emotions of the viewer, not to conform to any set of ideas, stories, memories or history. Creating the mindset of the viewers themselves is an important part.



Fig.6 The scene that blur the line between documentary and feature film

The composition of the story, both the documentary and the film, can be seen that information and stories of local people and the outsider. Even the filmmakers themselves consist of 2 directors and 2 nationalities. Ben, a UK nationality, can be considered an outsider and Anocha, a Thai director, is like a person in a documentary part that tells the story of local people and actors who are outsiders in the fiction. Including the context of the landscape of the local people and the outsiders like tourists. The fusion of storytelling changed the visualized and the landscape of Krabi in the film.

The characteristics of the tourist attraction like Krabi in the film has been changed because the definition of the narrative in film is distorted all the film timeline and other element in this film was uses the name of the place, even the title used in the B.E. was used to the specificity in the scope of time that could be interpreted with the context of the society and politics at that time. Finally, films are not just representing only their narratives but it was a creation of a memory set of event in 2019(B.E.2562)

#### **CONCLUSION AND DISCUSSIONS**

From the study of memory construction in tourist attractions through film, "Krabi, 2562", with the context of memory concepts and the film strategy can create new perspectives or interpretations for tourist attractions, from the study founding 2 aspects:

- 1) The attractions like Krabi were represent on the film "Krabi, 2562" were transformed into a historical symbolic of Thai society by conveying ideas through stories and myths, it's to be a metaphor for beliefs and understanding of history in Thai society that often consists of sacred myths combined with historical understanding. The reconstruction of superstition in films. It's to create a new legend with the power of films and viewers to compare the power of something that happened in the history of Thai society
- 2) The characteristics of the story structure and characters are compounded by incompatibilities and conflicting sets of concepts such as natural areas and the thing that building by human, the history and the myth, outsiders and local people, film and documentaries etc. Everything is fuzzy together. Is to erase the line in order for viewers to be aware, think and analyze for the historical viewpoint from the film by constructing their own information Which can interpret symbols to other areas in the context of Thailand.

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# A NON-LINEAR NARRATIVE AND ANTI-PLOT EXPERIMENTAL SHORT FILM, "HOME"

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#### **ABSTRACT**

This research studies the narrative of Anti-Plot films and the style of Non-linear narrative in order to direct the subjective film "Home". This research is creative research with the following objectives 1. Study the concepts and forms of non-linear narrative films. 2. Study the concepts and forms of anti-plot narrative films. 3. Analyze the concept of house and family under the context of contemporary Thai society 4. Create a screenplay that reflects the meaning of attachment by using non-sequential storytelling, and anti-plot. From the study, it is found that the films that are told in chronological order choose to tell the important content that can be connected with similar actions but with different meanings. The films that oppose the plot appear not to concern about the narrative, all actions do not have any consistency in the facts as well as may tell many events that occur at the same time by looking superficially as unreasonable. It actually tells some concepts together loosely by attaching to homes in the context of contemporary Thai society, homes are not just a response to basic living factors, but must also reflect the pride and answer to different lifestyles of each age group in which the researcher combined these concepts with personal experiences and imagination into a film with a focus on youthful feelings in which the context of the word "Attachment" has been spread into important content. "Home" (Rinthong Condo) reflects the value of memories and past notes.

**Key Words:** Anti-Plot, Non-linear Narrative

#### INTRODUCTION

Film is considered an animation media created from the concatenation of many images combined with different film production methods. It can be considered an important form of media that can affect behavior, emotions, feelings, has the power to convince people, and can affect people and society in many ways. Because most film s will tell the story of human problems which has relationships and is linked to reality a llowing viewers to understand the feelings of the characters through character habits. The context of the film story, problem and methods to solve various problems. All of which have its origin from what happened or likely to occur in everyday life. Since humans that are created in films are something that most people can easily access. Therefore, the characters in the film can be considered as the story operators in which the audience follows the character's life leading to problems, the burden of finding a solution and finally to solve problems by having emotions, feelings, reasons, and various instincts hidden in those stories.

Since humans that are created in films are something that most people can easily access. Therefore, the characters in the film can be considered as story operators. In which viewers will see the lives of the characters that lead to problems, encountering solutions and finally to solve problems by having emotions, sensations, reasons and instincts hidden in those stories.

Because the film is a medium that can communicate with humans in terms of persuading emotions. Various situations that occur with the character will cause the character to change in another way. After the event that caused the character to change his mind resulting in completely changing the character's actions. In real life, some situations that occur in the past often make people change. Some events cause some characters to have to get through it. In which the story of the film tells us to understand the events along with the characters. The narrative that must be combined with the character's actions will affect the future of the character and future events

The fact that a particular film can create interest in viewers doesn't just affect behavior, moods, or reasons. All of these come from the plot in which the creators want the film to proceed in the story. The plot is important for viewers to be interested in and understand events more clearly. But there are some plot types that viewers can't understand. Not attracting attention and do not understand the events in the film, this type of plot is called "Anti-Plot" suitable for viewers who have experience of watching movies to a level that can understand the elements of the standard formula plot. Because this type of plot is to capture the elements of the standard plot to be the opposite. Eccentric from the style of candy, or maybe even to parody the script, this group often has a flashy attitude to show the revolt of the author. Not interested in telling stories by time but spread the story out and back and forth to prevent the audience to catch what the beginning before, after all the actions in the matter there was no consistency in the facts. Including may tell many events that occur simultaneously by superficially as though they were not reasonable but in truth it indicates something important together together loosely.

# Objectives of the research

- 1. To study and understand how to tell stories in the form of " Anti-Plot "
- 2. To analyze the characteristics, structure, composition, method of storytelling Including content.
- 3. To be further developed to the film project telling the story of the attachment using Anti-Plot and Nonlinear Narrative.

# Concepts, theories and related research

The important theory used in this research is 'Anti-Plot Narrative' to create works from stories that are stuck in the memory of the creators through the modification into a non-grouped story Anti-Plot and use non-linear Narrative story-processing to spread the story out and switch it back and forth not consistent in any aspect in terms of facts as well as may tell many events that occurred at the same time by superficially as though they were not reasonable but will indicate certain themes together loosely this type of selection and method of storytelling is because some content is too personal for the director to be able to tell the story in chronological order. It is more interest than other types of films because it stimulates the imagination of audiences with film viewing experience to a level that is able to understand the elements of the standard plot rather than conventional narrative movies because story-telling films not really stimulating the imagination of certain audiences watching a conventional narrative film sometimes viewers don't have a life experience or a feeling experience with the characters in that film.

From research studies related to storytelling plot against and chronological narrative a number of studies have been conducted to study relevant issues that can be applied to this research with great interest, which are as follows

1. Concept of Deconstruction developed from two approaches. The first approach is a continuous development from the philosophical concepts of Jacques Derrida. was used in the

study of literature. Subsequently, Derrida's ideas transcend education. many disciplines are therefore used in social studies. The second approach, the concept of demolition Does not have a clear fixed principle But is a group of ideas that combine the ideas of "Post Structuralism" many people continue to develop, for example Michel Foucault, Roland Barthes and Jacques Lacan, both The three present the structure of different structures in different ways. Build is to dismantle and consider the fabrication of the structure. Rather than the destruction of the original structure (Yukti Mukdawichit, 2012)

- 2. Art film is a word that is difficult to define similar to the experimental movie because of Set the norm of what that art is Is a personal matter But it has been identified as a work that the director can control the process of the movie entirely manually Therefore viewed as a work type Private movie This type of work has appeared in movies from Europe since 1950, known as the European Art Cinema. Because the European film industry liberated the director in Creating more work styles And will reject methods of Hollywood narrative Story of the movie Art is often a problem in everyday life of the characters. May be someone who feels alienated from society or lack of communication, emphasizing the realism in conveying the emotions and behavior of the characters. Use camera angles that may Causing viewers to have to concentrate on watching And has a disjoint editing And this type of movie will Through the screening and distribution process that is not the mainstream, the film industry in that country But it will be passed at various film festivals or cultural centers as a stage showing important screenings (Anchalee Chaiworaphon, 2014).
- 3. Narration structure of alternative film principles will respond to the ideas of the creators rather than the response. Needs of a large audience Therefore, it is important that " a movie script" is important to Art film or alternative movies. Therefore, the narrative is related to the story. A series of sequential events or the plot lines. Plot is an event that is lined up as Structure for the Power of Storytelling and Narrative is the way Plot presents the entire story. Including the storytelling in the film will focus on narrative and non-narrative.

# **Terminology**

Anti-Plot means capturing the elements of a standard plot to be the opposite

*Non-linear Narrative* means the storytelling that opposite of Linea Narrative in which the 'chronological narrative', the events that are told will correspond (reasonably) with the sequence of the story according to the duration of the event.

# Scope of the research project

- 1. The researcher studied from Thai films that use the format of Anti-Plot in telling the story of two directors, namely Apichatpong Weerasethakul and Anocha Suwichakornpong and Puangsoi Aksornsawang, the selection of works for this research. The researcher used the criteria of Thai films using anti plot style.
  - 2. Scope of the content

The researcher studied the films of the group by carefully studying all 4 works A film of Aphichatpong Wirasetkul

- 1. Mystery Object at Noon, (2000)
- 2 films of Anocha Suwachakornpong's work
  - 1. Dao Khanong (By The Time It Gets Dark, 2017)
  - 2. Krabi, 2562 (2019)
- A film of Puangsoi Aksornsawang,
  - 1. Nakorn-Sawan, (2018)

# **Expected Benefits**

- 1.To understand the films that use the Nonlinear Narrative.
- 2. To understand the narrative techniques and the style of the Nonlinear films.
- 3. To tell the story of the attachment about the place using Anti-Plot and Nonlinear Narrative in order to make the viewers using their imagination to interpret various events without the creators arranging them into forms according to the plot.

#### RESULTS

The films that are referenced in this research are films that tell the story by using antiplot and sequential sequences. In which each story will tell many events that occur at the same time by superficially as though they were not reasonable but will indicate certain themes together loosely

- 1. Mysterious Object at Noon (2000) tells two types of stories: Fiction and Documentary. It begins with documentary narratives that follow to interview people by letting those people tell the stories freely and reuse those stories in a new shooting format. The creators did this with a group of storywriters. Before ending it with something, the audience doesn't need to know the origin or the story that will happen next.
- 2. Dao Khanong (By The Time It Gets Dark, 2017) tells the story of a woman who went through 6 October in the form of ordinary human life / birth, death, death / the process of making the movie Dao Khanong is divided into two parts. In the first part, the film looks at the events of October 6, 1976, through a female director, who is currently researching to make a movie about the life of a former female writer, student leader. All of the events took place in a resort in the province. Nan, after the movie, recorded images of Bangkok through professional actors, both of which have changed professional characters, changed the status from resort staff, cleaning staff in shopping centers, staff in the restaurant to the boat, teenage girls. In the pub and the nuns appeared in both parts of the movie As if she were the center of the stars, but without any interaction with the rest of the characters
- 3. Krabi 2562 (2019) brings the structure and content to alchemy. Bring the structure of the movie to where the Krabi area is and the content is Krabi a tourist area, does it have a clear boundary of the area? By asking questions about the film and bringing it to connect with the content To be a new way of storytelling.
- 4. Nakorn-Sawan (2018) tells of some important moments in the family life of 'Rose' (the director) and 'Aye', the woman who lost Were traveling to float Tuesday at the river in Nakhon Sawan province. The beginning of this story shining the world of Rose Who traveled far to study in Germany When distance is an obstacle to closeness She therefore used to contact the family via telephone. The story progresses. Until her mother became increasingly ill. Ultimately died Like the world of Aye, a young woman who lost her mother prematurely Between the world of Rose and the world of End Divided into two parts (not) clear. This is the specialty of this film that has it. Subject lines that are almost parallel Not relevant But it's related Watch not linked But connected That is like this because both the world of Rose and Aye share a common point: "Memories of mother"

# **Summary and Discussion**

Bringing all 4 films as the basis for research and storytelling of the movie "Home", an anti-plot movie that combines structure and content into a new way of storytelling, with concept "attachment" into the main components of storytelling between people and places It also talks about memories and stories from the past about a place called "home".

Concept 'Attachment' is that one thing is attached to another whether things with things, living things with living things, living things and things, living things and things, living things with the past, living things and living things, living things and things, lifeless things and places All of which is just what the creators felt about them. In which the creator has the memories that are confiscated with places in the past that still go back endlessly.

Theme: Every place can store feelings, memories, and stories very well.

Synopsis: The story of a family that has to live with something stuck, such as memories, thoughts that obsessed with the past, with Kong (main character), 4th year students in the film department have to return to his ex-house in order to record the work, as person to hold various stories together.

Plot that applied from the study of Anti-Plot and Non-linear Narrative

- (1) The story of returning to the room and discovering the dead carcass means an insider (Kong) that is still alive and outsiders (dead birds) that come to live until death but finally, Kong releasing it from this area to be free. Instead, Kong was the owner of this room and is still here.
- (2) Middle-aged women who are always looking for a home (mother), the starting point of this place.
- (3) The two young men who were playing with each other when they were young were back to meet again in order to carry on the past and finished these memories.
- (4) The two children who ran against the aliens in their thoughts were like good spirits and innocent minds before creating traces in that place that what they used to do in this place.
- (5) Two young men who record and one of them can hear a softly barking puppy, meaning a dog that Kong had been brought to the side of the motorcycle parking area.
- (6) The housewives who were interviewing in front of the camera were the representatives of the housewives that had met in their childhood.
- (7) Middle-aged women are cleaning the room "Meant to lie and lie down" . She's the mother who currently living in the house belonging to others, like a house they had dreamed of
- (8) Kong and the top folded paper boat sailed in the pool Like like wanting to go out into the sea with a hundred thousand but has a pool edge The steep water barrier is a high wall.
- (9) Kong meets a new housekeeper and asked about the old housekeeper before recording the video.
- (10) Bank staff The loan is like a representative of binding the name of the father and mother to this room.
- (11) A middle-aged man who lives in a van Represent the father But working on the van attached to the seat for many years.
- (12) Two boys were trained to fold the paper boat, showing the stories shared with friends and places.
- (13) The van driver man came back to rest in the condo. He's the father who still uses this room is a place of rest for just single person.

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# A SHORT FILM OF DISABILITY, "THE MEMORIES SONG OF SPROUTS"

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#### **ABSTRACT**

This research of A Short Film of Disability, "The Memories Song of Sprouts" was the creative research that aimed to 1. study a story and type of disability, 2. study a film of disability, and 3. create a short film that reflects the perspective of comparing the lives of the disabled and ordinary people. The findings revealed that a film of disability presented the perspective of physical disability without a mental illness, the researcher adjusted to own script of a confused person with the fragile state of mind from his past, to present the strength of mind and perspective of disability towards the world and the weakness of normal person who faces up to the current state of society and produces it as a short film of disability. The findings of a short film, "The Memories Song of Sprouts" indicated that the imagination of disability was better than a normal person, the researcher hopes it will make the audience better understand and emphasize the disability.

**Keywords:** Disability, Drama Short Film

#### **INTRODUCTION**

Film is therefore a mass media with roles and influences in various fields that has been very high for hundreds of years. Until now, even though there are many other types of media already occurring, but the movie is still in popularity and is constantly being developed to play an important role especially in the business of entertainment and still has a high value for education. Because the film is a medium with special features a ble to understand the story deeply.

One of the most well-known film genre, Drama . Drama needs to be included in every genre of films. Because of this Dramatic character, the character has a clear and reliable first push. It is a matter of fundamentalism for all genre, and when cutting all the face plastering methods what remains in the film is the Drama itself. The film in this way is about learning about life. It is a movie that will focus on themes that are clearer than other approaches b ecause in the end, the audience and characters will have some lessons learned clearly . A distinctive feature that has to be in this film is the concentration of the characters, External desire to lead in the pursuit of learning and end in learning or end with bright eyes or an end that has not been learned but an end that will allow viewers to learn. The film will walk with desire, goals, and conflict e specially the conflicts are mobilized both internally and externally. In order to create a clear mechanism in this film that is to create tension for the audience. It's tension that audiences who like this type of film crave. They want to support someone who has the same problem as him o r if not the same way, then there will be anticipation supporting that the characters will go through a crisis How does the conflict go to grab what they want which communicates and expresses the most feelings of this genre all bring the negative feelings of the mind of the characters in which the character has a special

characteristic that attracts the audience, sympathetic or sympathetic to the character and when it is a film of life, it's all based on the reality of society. Therefore making the character of the character inevitably be a marginal character of society people who are overlooked from outside society or being abused by others, such as black people, the poor, third gender, or even the disabled.

Disabled person means a person who has limitations in performing their daily activities or getting involved in society d ue to impaired vision, hearing, movement, communication, mind, emotion, behavior, intelligence and learning or any other impairments combined with obstacles in various fields and there is a special need to receive assistance in any way to be able to perform daily activities or participate in social activities like the general public. This is in accordance with the types and criteria announced by the Minister of Social Development and Human Security. And for this reason, some normal humans see people with disabilities as abnormal, insulting, disparaging, looking different from normal people, just their body parts are broken or gone. But if they pondered the reality Human value is not in the body. It is more of a mind and action than a true measure of human values. People with disabilities who transcend those abusing insults. Finally, they can succeed in life.

And because the reseacher had memories of a close friend accident causing the body to become half paralyzed unable to walk for life. And then the incident of that accident, we had the experience of being at the scene of the incident and it was the incident that touched the producer. at still affects the memory of the author to the present day And will reflect the perspective of the life of a stationary person, with the view that he views the world with an individual who stops walking in life for some reason that he cannot overcome it.

# Objectives of the research

- 1. Study the narrative in dramas related to people with disabilities.
- 2. Create a short film that reflects the perspective of comparing the lives of disabled and ordinary people.

# **Concepts and Theories**

#### The Elements of Drama Film

Drama film is a film that shows the life of the character. The purpose is to reflect human behavior and actions in the midst of crisis and daily life. Mostly emotional family problems history, biography, disaster, stress, including unrequited love organized as a film that is quite ordinary, not eye-catching, attracts audiences and writes difficult script.

#### The Characteristics of Drama Film

- (1) Characters tend to have their own weaknesses and the weaknesses are always attacking the characters, such as weak minds family warmth.
- (2) Characters often show expectations of various things but will be destroyed with disappointment a nd repeatedly encountered disappointment o nly makes the character go down a lot.
- (3) Reflections on views, feelings send to viewers to know. The feelings expressed through actions, facial expressions and eyes do not mean sad but the emotions that are clearly seen in the feelings.

- (4) Characters that are pressured by the surroundings r egardless of internal or external conflicts all want to vent their feelings out or wanting someone to be dependable for.
- (5) Characters often encounter conflicts that are opposite with the myth of looking at the society of the people in the film which will make the character regarded as a bad thing in society.
- (6) The characters are not perfect and the character's weaknesses will be the main problem that will cause chaos within the character's life.

# The Storytelling of Drama Film

Drama-style narrative, dramatized narratives have a narrative style within the structure of the 3 acts, showing the feelings of the main characters that encounter various obstacles, divided into 9 important points:

- (1) One fine day: It is an introduction to the character, beginning with a situation where things and things are not perfect But the characters are in that fine in this situation.
- (2) The challenge: When our main character, the viewer, has heard some of his story began to have conflicts in his life m ay start with a small problem in which the characters begin to find a solution or not need to find a way out.
- (3) Descending Crisis: It is a critical point for the character. At this point, the problem will constantly attack the character Conflicts and problems will worsen the mental or physical character. A ll these things the characters do will keep getting worse until reaching the bottom.
- (4) Rock bottom: When characters encounter many problems, their lives at the end, the character will face the biggest problem. The Lowest point of life itself in which it is the point that the character must review himself and choose the path of life will live like he has always been or will change your life.
- (5) The worst: It is when the character is at Rock bottom. The discovery is the time when the character is the most depressing.
- (6) The discovery: It was the moment when the light of hope appeared and discover new methods to solve problems. Some characters may change for the better but in some characters it may change for the worse.
- (7) The rise: When finding a path that leads to the exit but of course, on the way, the characters still encounter various conflicts. The characters will find a way to solve the problems of the incoming things ready to put yourself in a higher place than before by the way, may be for good or bad.
- (8) The return: It is the point that the character can return from the lowest point. Now, not only the problems and challenges that have been resolved, but the characters and viewers will go through various events and see the development of the mind and body of the characters.
- (9) The lesson: After the problems are resolved, this is the point that the characters learn learned lessons in life.

# **Terminology**

**Disability** means a situation in which a person cannot do anything due to impaired vision, hearing, movement, communication, mind, emotion, behavior, intelligence and learning or any other impairments combined with obstacles in various fields.

**Drama** means a film that mainly touches the life and feelings of the characters using story actions that have an effect on the character's life. And some of the characters have developed from the beginning of the story.

# Scope of research

This research is to study the directing of the drama film about disability from 4 films including 37 seconds (2019), Scent of the Morning Sun (2014), The Diving Bell and the Butterfly (2007), The Intouchables (2011) and a drama film about life: Departures (2008) and developed into a short film that compares the perspective of normal and disability, "The Memories Song of Sprouts"

## **Expected Benefits**

- 1 . To reflect the creation of self-values / positive optimism / the confrontation of problems with optimism and self-worth.
- 2. To reflect the image of the disabled who do not have physical ability b ut not without of the brain and the mind.
  - 3. To learn the directing of films and elements of drama
- 4. To apply knowledge and create a short film that reflects the perspective of comparing the lives of disabled and ordinary people.

#### **Research results**

From the experience of learning about movies for 3 years together with the feeling that remains outstanding in the mind. I therefore initiated the initiative to pick up the story of a friend who got an accident until becoming disabled. But he can still give encouragement to friends who are thinking short or can propel people forward even if they have to stay in the same place that makes me bring his story applied to a drama film and wrote the screenplay from the 5 references stories that have been modified many times in order to reflect the viewpoint of life value life and death optimism for the disabled perspective of looking at the world that is different from ordinary people imagination that we may not know about it or even deep within the heart. Something that he hid it undetermined everything is adapted for the script. Along with establishing the basis and life story of the characters shown based on various common feelings and character analysis of characters to be able to anticipate actions that must be taken while studying various film s consult teacher the faculty e diting and developing screenplay in which the reference films are used to analyze various details within the story as follows

Table 1 Analyze of 37 Seconds (2019)

Film	Drama film elements	Form of disability
37 Seconds (2019)	Various elements of storytelling is the operation of the characters used on the daily w ork as a illustrator for a famous idol friend. But the story caused her suffering because her work was claimed by her old friends as work, not her, so she encountered issues such as to draw porn manga or having sex in order to draw more pornographic manga. Until she had to quarrel with her mother and run away from home and she went to look for her father who had taken leave from her mother since she was young until she learned the truth that she had another sister who was a twin w orking in Thailand, she then sought out her sister Finally, when both of them talked about, the heroine returned home and started working on manga writing again.	The film opens with the impression that she is a disabled person. The brain that causes her to not be able to walk, causing her to be in a wheelchair. But she has the ability to draw mangas Therefore having to take a wheelchair to work with her friends on a regular basis, with the story of the female protagonist being uneven she is disappointed by the things she hoped many times including her own ability to write mangas that were stolen by friends until causing her to become involved in the night society and causing her to have an argument with her mother who has always looked after her by the different attitude between mother and her which she thinks that she is not a disabled person, she can help herself no need for others to look after therefore thought of running away from home in order to find a father that she had never seen before until the story led her to travel to the countryside to travel abroad. This perspective can make us clearly that people with disabilities can travel wherever they want. Even though there are obstacles, they can overcome and overcome them and made her choose to light her own fire back to write a manga again.

Table 2: Analysis of The Diving Bell and the Butterfly (2007)

Film	Drama film elements	Form of disability
		-
The Diving Bell and the Butterfly (2007)	The story does not go in a straight line. The story starts with the protagonist in an accident with a stroke. Also known as the bottom of life From a glorious life, good work. He has to live in bed and can communicate with just a blink of an eye. In the beginning, the character is extremely hopeless to the point of communicating "I want to die" but after he learns various things, he tries to continue living his life and his hope is what he loves. Since before the accident, that was to write a book. The book he wrote is a story of his life in an accident that requires only one eye to write in this book a nd the story goes back to the various times in the past that he had experienced, including living with his father or with his ex, which allows us to see different perspectives of beliefs. Faith in religion or love and concern until finally, when he learned many things from perception and could only communicate in a blink of an eye. His books are also published a nd soon he died. The story may not teach many characters to the hero b ut taught the lesson to viewers that appreciate the value of living a nd the process of life that is in a state of disability	Stories allow us to feel and think about the various actions of disabled people. Through the sound of order and images of thought h is imagination in thinking about things to come to lecture in his book. The film compares the disability of the hero as if wearing a wet suit that can not move anywhere b ut likened his imagination as a butterfly that floats in all directions, admiring the beauty of flowers around the world or even his lustful imagination can transcend things to have a deep relationship with the deceased queen. Therefore, we will see the ability to imagine that is written as an article in the book. For people around the world to read even though his body is unable to communicate at all except for the blink of an eye. But in the end, he is still able to learn things and achieve his own desires based on his condition. But from the point of view of the story and society within the film, there is still an insult to the disabled although there are nurses or people who are writing books for the male protagonist who looks good and has patience to take care of the hero every day. Outsiders are not interested in the hero, ignore the hero. A ct like he doesn't have him there finally, the hero transcends all of those things and achieves success in life and leaves with joy.

**Table 3 Analysis of The Intouchables (2011)** 

The narrative method is linear, gradually getting to know the characters one by one. The plot emphasizes the binary opposition in the film including the rich, the poor,
white skin, normal and disabled people. The story focuses on the life of a poor black man with family problems and having an argument with the house until they wander about and wander around looking for work until getting to work as a caretaker for a disabled billionaire made his life change. His life seems to have started from scratch developed to change his state of mind from a hilarious, harsh, joking around the day to live aimlessly. When trying to take care, come to understand, live life together with the disabled , his state of mind and behavior has changed. He understands more things in life, whole life knowledge developed and access to art. Finally, he has learned to take care of things that he has always overlooked. That's his family although the work he is doing is happy, but what he really has to look after is his family. He therefore decided to stop working with billionaire man to go back to look after the family. From the point of view of the rich man, he also learned many things from a black man as well. His life, thought to only exist in a wheelchair can't do anything next. After he learned everything in his life looks more vivid, he can overcome his disability and allowing black men to learn these things from him. He also learned about new love but he had be learned to learn these things from him. He also learned about new love with he also learned his disability and allowing black men to learn these things from him. He also learned about never a proportion of the rich man and get to know each other. Black man at ranscends fear choose to go ahead and face obstacles. Finally, the
with the house until they wander about and wander around looking for work until getting to work as a caretaker for a disabled billionaire made his life change. His life seems to have started from scratch developed to change his state of mind from a hilarious, harsh, joking around the day to live aimlessly. When trying to take care, come to understand, live life together with edisabled , his state of mind and behavior has changed. He understands more things in life , whole life knowledge developed and access to art. Finally, he has learned to take care of things that he has always overlooked. That's his family although the work he is doing is happy, but what he really has to look after is his family. He therefore decided to stop working with the billionaire man to go back to look after the family. From the point of view of the rich man, he also learned many things from a black man as well. His life, thought to only exist in a wheelchair can't do anything next. After he learned everything in his life looks more vivid , he can overcome his disability and allowing black men to learn to live w cannot escape from disease or but you can learn to live w condition. Although his bot condition. Although his bot always be in a wheelchair but and his recklessness. He likes fast cars or even Extreme sp has already played. We will sides of the state of mind bad periods . During encounter with a black man, the chose to get this guy to because he didn't see a rich in disabled person, just a huma. The time when they both learn other making the life of the r more lively but when the ri thought of having a new l chose not to take a picture of wheelchair for the woman talking to or even on the dat meeting, refusing to see him he was afraid of her disgus physical condition but when leading to or even on the dat meeting, refusing to see him he was afraid of her disgus physical condition but when leading to or even on the dat meeting to a many things from a black man as well. His life, thought to only exist in a wheelchair to a many t

Table 4: Analysis of Scent of the Morning Sun (2014)

Film	Drama film elements	Form of disability
		·
Scent of the Morning Sun (2014)	The story begins with us showing an old, disabled man who must be in the room with his son. The father cannot do anything by himself, so must have the son to help all the time. The son has an offensive behavior making his father's feelings even worse being in bed alone leads to more repetition and thinking of the past than the future. And it makes his old stories that used to be happy come back once more but when he looks at himself today, that life is not as beautiful as he thought. He chooses to take suicide pills but his son saw it in time and helped. Tears of torment flowed down. The son didn't understand why his father made that decision. But when his father tells the story of an old dog that has to torture and howl every night due to aging. Finally, the next day his father took his favorite bone and gave it to him to eat and after that it died after his father fell asleep, The bird flew to death, causing his son to think of something and the story that his father had told. The next day the son held the tray with medicine and water and woke him up. Before he had to take medicine to leave this world the son and asked to sing a song its meaning is the sun that is sinking into the water ,the gondola that reached the shore, The light of a thousand stars, all talking about to end being sufficient from various things. It might hurt the son's mind very much but he must continue to progress although his life from now will not have a father anymore.	The story does not reveal that the character's father had an accident or something has caused him to be disabled. What we see is that his lower half can't move leaving only the upper part that is still moving but not as flexible as the hand until he had to lie in bed and live in a single room throughout the day and night. His Life is still repeated, repeated, and thoughtful of the beautiful past and when looking back at the leg that he had walked throughout my life, today he can't walk so he chose to end his life by taking medicine but was hindered by his son. But his life has chosen to end this torture with death, as he had done with his dog star, or sometimes he may want to travel to find his wife who has passed away. We will see a view of his own blame for the most part feeling uncomfortable inside that even making crows and waterfalls has no place to call for children to collect, leave it on like that, as if to think about it, to his legs, which, despite being scalded, didn't feel anything. In the end, his life would end as well as the setting sun.

**Table 5 Analysis of Departures (2008)** 

Film	Drama film elements	The Context about The Value of Life
Departures (2008)	The story in the film combines music and the value of life together seamlessly. Life that is not strewn with rose petals uncertainty of life finally, no one escaped what is known as death. Bringing the issue of death and being the body of the dead with the issue of contempt and contempt of the society of this profession But in the end, everyone who insulted must go through the hands of this profession or what everyone calls the undertaker. The story teaches us to learn about what everyone is trying to escape from it: death or may view it as a problem and insult people who are facing or help to solve problems for people who meet. But in the end, when we have to face the problem by ourselves, we instead have to go to that person to be the one to solve the problem for us which is no different from death what you escape is death. You keep insulting a lowly undertaker like the undertaker b ut in the end, when you die, you need the undertaker to help you perform the funeral. It is the truth of this world that no one can escape death. Along with the music that mixes the mood makes us feel filled with the feeling that is filled a ll makes us feel like learning something uncertainty of this world accepting what is inferior in what others insult. For the last happiness of life a small thank from the body might not have only the actions taken to help the body in the last second before the decay remain beautiful.	That peace, aside from the fact that there is no conflict with humans we should not have conflicts in ourselves as well. So that peace can be produced as can be seen, this film is Acceptance of a funeral decoration profession. At first Daigo is not happy with this career but when he tried to open more heart for this profession, he found the truth that made him happy with this career is Death is a beautiful thing. If we accept to say goodbye, we will see that beauty. Meanwhile, Daigo's wife which at first objected to not let Daigo continue this career and leaving the house. But when seeing the attention to making Nokan-chi for Daigo's bathhouse, Daigo's bath made her more open to the career in which you are open to accepting what you are and what others are that is the way to peace can end the conflict and lead to peace. When the end is here, there would be no more words that the deceased wanted to hear than "Thank you" and "I love you". A s the Lord Buddha said Compared to the great universe the person's life is short, Death passed and then passed. Things to keep in mind are we do things that are beneficial to others and do good things. In this life yet? At least, just let us be a better person than when we were born.

These films all emphasize the meaning of disability and the value of life. Changes and learning of characters From the person in his story to another person later from being a person who likes to watch drama films and the experiences of friends who suffer from accidents that have to become disabled, their lives, various changes It's not the same Living a distant life makes us want to learn how to feel or the concept of the disabled to the world, a sad or strong heart Passing through life each day. Everything is different from ordinary people.

That's the reason why I want to reflect on this friend's story. At least, although today we may not live together but the story of this friend will play a role in this research and will drive the work potential of the filmmakers.

### **Summary and discussion**

The films that are referenced in this research are all related to the disabled and the perspective of life but there will be feelings expressed in different perspectives from the movie 37 Seconds (2019), bringing the idea that the characters do not view themselves as disabled and try to keep themselves from being a burden. Trying to be part of society. He also did not give up on the destiny of disability from The Diving Bell and the Butterfly (2007), even though he blinked only his left eye. He still writes books and movies, also makes us aware of the family institution as well. It is not easy if we have been physically fit and have lived a normal life until one day they will become disabled regardless of how many wealth they have. Money cannot understand and give us love. The Intouchable (2011) has clearly shown having good friendships is luckier than wealth. Above all, good friendships are not seeing themselves as disabled. But not all people with disabilities are wealthy or have money to hire someone to look after. Some people must burden the family and those around them. It's like the short film Scent of the Morning Sun (2014) that if we ever do something ourselves and one day we can't do it again. Just bend down to collect the falling kettle that still cannot be done. Heart pain is even worse if the kettle is acidic on its own legs. If a normal person would cry with heat from the water but we don't recognize the heat. Seeing only the skin that was red and slowly decayed, it may not be easy to make myself happy. Ending your life may be easier but seeing that our loved ones have to end their lives is a lot more tormenting. Life after death is something that no one may know what it is or is it true? The only thing we know is a body without command from the brain Stop heart or what we call "funeral". Departures (2008) shows that society is still judging people from careers, salaries, without looking at the intrinsic value of the job and the money earned. We bring about learning the value of life to insert in the research at the end of the short film. By giving the outstanding or the hero in the story of learning to live life without escaping from reality

Combining all 5 films together will make this research more dimensional and better communicated to viewers. The "The Memories Song of Sprouts" script is a drama that reflects the different perspectives of normal people and those who disabled in looking at the world differently not sinking into bad things in life In which the film opens with a remarkable dream of seeing a dark tunnel with a small light. He dreamed like this many times, showing that his subconscious mind has something stuck. In which the script will create tension for the audience feeling oppression, wanting to know the history of 'Den' and 'Pol' (Two main characters) or what happened to Pol outstanding as a person doing it or not how does outstanding problem solve himself? When already putting a lot of pressure on the audience will have an answer in the form of an emotional explosion by facial expressions, gestures, tone of speech that is indirect in order for the audience to feel the release of the repressed emotions and ending with the spotlight unlocking his nightmares learning how to live life and how to be worthwhile.

Completeness is the 32 whole body, and disability is simply the inability of the organs in the body. Humans are diverse and must live together in the same society. Why people are

different from us , we therefore assessed the price and gave the price to him as a disabled person. Humans are naturally different. Even though they are twins, they are different from other traits, habits, preferences, and feelings, just the same. If we consider that a disabled person is just a normal person who is different from us, what will happen? That he is incompetent in a certain way. Not referring to him as a social disabled person some of the disabled are world-class artists, drawing, writing, doing social work. Unlike people who call themselves perfect people physically. That may be social disabled the religious belief that helping the disadvantaged in society can be very rewarding. If you look carefully could be a bluster causing him to feel that the disabled are inferior to themselves or not or actually the society that makes disabled people feel inferior and burden. The purpose of this short film would like us to start from changing the view that the disabled people should be substance. Do not look at them with the pity when our society is not label that they are disabled then how can he feel that he is disabled? More than understanding his different body is understanding that starts with us.

In this short film, there will be a scene where Pol plays a song for the bean sprouts. Which is the origin of the title "Song of Sprout". It shows that Pol looks happy with the small things around his body that cannot move to find happiness elsewhere. Paying attention to what he awakes learning to make the things he nurtured the most. A distinctly different point of view makes us aware of the many small pleasures in our lives that we may overlook. The happiness that we start with optimism not sinking into the past or a bad situation, not seeing yourself as worthless just because you are disabled. In addition, it is still a positive energy for those around you as well. When we accept the truth and not escape the problem change one's life the idea of being happy with who we are and having inevitably makes our lives more happier.

#### **SUGGESTIONS**

- 1. Those who interested in making films related to people with disabilities can use this research to apply for their films.
- 2. Those who interested in this topic can study further by studying various works from different society and cultural context.

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# A STUDY OF LOCAL CUISINE THROUGH THE SHORT FILM, SALAYA DISTRICT, NAKHON PATHOM PROVINCE: SUAN SUNANDHA RAJABHAT UNIVERSITY

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#### **ABSTRACT**

This research was aimed to study the lost local cuisine in Salaya District, Nakhom Pathom Province through the short film. The research was the qualitative research by conducting the interview with 2 elderly persons in Salaya District. The findings revealed that Bon Curry, Frog Salad, Banana Blossom Salad were the antique local cuisine and lost in the daily life. A study of the lost local cuisine through the short film, Salaya District, Nakhom Pathom Province interfered a story of lifestyle, belief and recipe with Thai herbs, it revealed that Salaya District was located nearby Mahasawat Canal and a belief of Bon Curry which made a cooker and eater feeling itch was false, a cook knew how to remove its calcium oxalate before cooking with Thai herbs for such roasted chilli curry, boiled fish and kaffir lime.

**Keywords:** Local Cuisine, Short Film

#### INTRODUCTION

Suan Sunandha International School of Art has been assign from The Suan Sunandha Rajaphat University to serve the policy in creating an academic service project to solve poverty In the fiscal year 2020. To reduce the gap between the rich and the poor problems and to resove the problems of low income people in the community, Moo 1 Salaya In which the main plobrem are the poor don't have ability to meet the standard living such as a Hygienic house. Almost of them are homeless and living in a shelter on the edge of the railway. No source renting space to build a house and don't have a living area inappropriate environment for having a good occupation. There basic income are from collecting garbage for sale, washing dishes etc. By that issue they could not meet the living expenses. In the way of developing there living standart we have found that the plobrem are the elderly being left at home and still have to work to support themselves because the children move to live in the city or working in other locations, etc. They have some great working skill or some good old food recipes but without the product developing skill and a good communication tools they can't create it up as a bussiness and earn income for living. Also the plobrem of the elderly being left at home and still have to work to support themselves because the children move to live in the city or working in other locations, etc.

For the said reason Suan Sunandha International School of Art. Opened a learning source called "Learning Resources of the College of Cinema" By starting with a group to produce community products and develop into packaging for sale to generate income for the community causing the elderly in the community to generate income and create mental value for the community. From the study reserch by interview with the community members the outcome that Salaya district Nakhon Pathom Province has an interesting history, found that "Salaya Subdistrict" is an area with a long history. Also have an unique in both history and

culture which used to be a prosperous city because it is adjacent to the ancient city of Nakhon Chai Si From the Sukhothai period to the capital city Trade and exchanges for religion and culture, especially rice, fish, food is abundant But now For example, Bon Curry, which is currently unavailable And ancient food that has been lost or converted from ancient food The researcher aims to study the local food education to create additional income for the community, Village 1, Salaya, Nakhon Pathom Province. In order to develop into a product of the community and generate additional income for the community Create community products that are diverse and unique, belonging to Moo 1 Salaya, Nakhon Pathom Province.

#### LITERATURE REVIEW

Asst. Prof. Dr. Witthaya Makkam (2019). The research on the development of the standard of Suan Sunandha recipe Health-oriented to the world market. Which makes this era people know, and also can access and get to know more about the history of royal palace recipes stories from the past and make it come back to life in this digital age. Caused by the work of a research team from Suan Sunandha Rajabhat University That brought some food menus from Kaew Chao Jom Restaurant, Wang Suan Sunandha Hotel come through research and experimental analysis to make food easier to eat and cooked according to standard recipes in short film studies about local food. Nowaday the way of communication has been change also the way to keep a food recipes too. The research had study from the signature local dish (Smart SME TV) and found that the method of simple storytelling is easy to understand and has charm from the community.

# **2.1** Study method

Local food of Salaya Subdistrict. Collecting basic information from interviews by filmmaking students. Students have visited the area between 14 to 15 March 2020 to collect data for education in the Moo1 Salaya community area, Nakhon Pathom province. Therefore Study in detail about local food, history process of cooking intimes. From the study it can not be state cleary that what is and olden food from Salaya district. Therefore, form the collecting data by interviewing people who have grown up since childhood In Sayala Sub-district, consisting of 4 people, providing information that In general, the ancient food that is routine found naturally that occur along the canal, such as yam yak, banana, frog curry, bon curry, banana curry, which raw materials can be obtained from the community but the process of cooking is different.

In this chapter, data is compiled and calculated by synthesizing the work of 5 students in filmmaking academic department about local food education to create additional income for the community, Moo 1, Salaya, Nakhon Pathom Province. Study from an interview about food in Salaya, Nakhon Pathom Province, as basic information. Study from the production process to be synthesized into a poster and used to write non-fiction screenplay about Curry Bon https://drive.google.com/file/d/1KOA46oxJy9aJI3Lp\_fT\_PbjFL1tlunF/3view?usp=drivesdk



# 2.2 The information was synthesized and compiled into knowledge labels about Bon Curry.

The objectives of filmmaking for education are to create more income for the community Moo 1 Salaya, Nakhon Pathom Province, when screened, has led to the dissemination via online media and retention, satisfaction assessment.

Writing a script, defining a short structure and writing a story outline after we have researched the information before writing it as a treatment. It is a continuous process from conceptualization to content analysis. Until obtaining the main points and minor issues and then writing them into chapters Which determines the order of audio and video presentations. In order for the viewers to receive the content according to the specified objectives which specify the picture and sound clearly In addition, the script also transmits the process of creating the program into letters and various symbols in order to convey the meaning to the co-producers. And proceed with production according to the duties of each person.

Filming process are aiming on elderly, there is no necessary to have a chapter to explain how to make components, scales, and beliefs because the target group will feel uncomfortable and difficult to pull naturally in practice.



#### RESEARCH METHODOLOGY

#### Samples and data collection

Local food education to create income for the community. 1 Salaya, Nakhon Pathom Province, has steps of Operation step by step

- 1. Study of relevant research theory papers
- 2. Studying from an interview about food in Salaya, Nakhon Pathom Province
- 3. Study from the production process From the survey research survey results by making online news about satisfaction. https://docs.google.com/forms/d/1MgiLxhptkUU2iZzGvnvUuGc09L-J5L7T7tW06fESg/edit

#### **RESULTS AND FINDINGS**

The descriptive analysis of the empirical data revealed that the complete editing was found that

The 1st editing guide Presentation 1 has recommendations from teachers Tonhpon Sapnirun. Eternal wealth as follows

- 1. Change the song to be more soft tone.
- 2. Changing the scene, do not remove the shift. Use as other forms, look smoother than this.
  - 3. When telling the component, add the part to show as well.
  - 4. Put on the subtitles because sometimes the part doesn't sound well.
  - 5. In the out-of-focus range See if there are other feet.

2nd montage suggestion Presentation 2 has recommendations from teachers Tonhpon Sapnirun

- 1. Change the song to be more soft tone.
- 2. Cut out the image

How to request the advice of Teacher Theerapong Sareesamran on solving sound problems. Students who are in Year 1 cannot solve the sound problems.

From the survey research survey results by making online news about satisfaction. https://docs.google.com/forms/d/1MgiLxhptkUU2iZzGvnvUuGc09L-8J5L7T7tW06fESg/edit

#### **CONCLUSION AND DISCUSSIONS**

From research, studies, local food education to create additional income for the community, Village 1, Salaya, Nakhon Pathom Province. I then studied the process of production to be synthesized as a poster. And brought to write a feature film script, the documentary film Curry Bon has the following results

Most of the respondents who responded to the survey were Nakhon Pathom Province, 154 people, accounting for 64.16%, followed by 30 people, 12.50%, 25.4%, 10.41 High number of people 16 people, representing 6.66% and the least unknown, 15 people accounting for 6.25%

Most of the respondents do not know the local food, Salaya Subdistrict, Nakhon Pathom Province, 178 people, representing 74.16%, followed by enough to know 30 people, representing 12.50% and rarely known, 14 people accounting for 5.83%, knowing the number 10 people accounting for 4.16% and the least known number of 8 people, accounting for 3.33%

The majority of the respondents were the most satisfied with 165 (68.75%), followed by the highest satisfaction (51.25%) and the lowest (24) with moderate satisfaction (10%).

Most of the respondents did not know the 145 curry at all, accounting for 60.41 percent, followed by less than 40 people accounting for 16.66 percent and 32 people accounting for 13.33 percent and enough to know the number of 18 people as a percentage. 7.50 and know the most, the least number of 5 people, equal to 2.08 percent

Most survey respondents were satisfied with the method of storytelling. Kaeng Bon in the documentary film "Kaeng Bon" the most, 154 people accounting for 64.16%, followed by extreme satisfaction of 46 people, representing 19.16% and the least moderate satisfaction, 40 people accounting for 16.66%.

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# DEVELOP ENGLISH COMMUNICATION STYLES FOR BOAT DRIVERS PROVIDING ECOTOURISM SERVICES MAHASAWAT CANAL, NAKHON PATHOM PROVINCE

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#### **ABSTRACT**

Develop English communication styles for boat drivers providing ecotourism services Mahasawat Canal, Nakhon Pathom Province It is a qualitative research. Use the method of education based on actual experience Inquire about experienced and pioneers in agricultural tourism. Mahasawat canal And got the idea from the Tourism Authority of Thailand promotion By the unique agricultural tourism The Mahasawat canal has a distinctive identity. In the way of life, smoothness, canal, sufficiency and agriculture But still lacking in communication, especially in English Especially the boat driver Because tourism does not have a guide to advise Only the boat driver The boat used for the Mahasawat Canal tour currently has about 15 ships. Each year there are more than 1,500 foreign tourists / year. According to the survey of boat drivers From a sample of 11 ships Found that 100 percent do not have knowledge of English Due to inherited from generation, parents do not study. The boatman's problem solving method uses sign language instead. Important guidelines that can not be communicated, such as not placing hands on the edge of the boat. The researcher deems it an important issue. Because about safety Therefore conducted a study Develop English communication styles for boat drivers providing ecotourism services Mahasawat Canal, Nakhon Pathom Province In order to actually use it And promote tourism

**Keywords:** Communication style, boatman, liver ecotourism

## **INTRODUCTION**

The Mahasawat Canal organized ecotourism tourism. Travel by boat to visit both banks of the canal. Study the smooth lifestyle of the Mahasawat canal. And the boat groove to visit the links with tourism management Throughout the year, many tourists, both Thai and foreigners, come to travel. Fares Charter for 5 spots, cost 350 baht, can seat 6 people / boat, but the problem is The driver of the tourism service cannot communicate in English with tourists. Causing tourists to not understand or misunderstand Because the steps or methods of taking a boat require an introduction or practice that tourists must know

For this reason The researcher therefore wants to develop an English model for boat drivers providing ecotourism services. Mahasawat Canal, Nakhon Pathom Province, for communication development Suggestions for recommendations or additional tourist spots And is beneficial to promoting tourism to be accepted internationally and is integrated with teaching and learning. Which can bring students in English communication courses in daily life to join research projects for community development and student development in the next class

#### objective

- 2.1 Exploring basic English skills for boat drivers providing ecotourism services Mahasawat Canal Nakhon Pathom Province, Nakhon Pathom Province
- 2.2 Study the development of English communication for boat drivers providing ecotourism services Mahasawat Canal, Nakhon Pathom Province
- 2.3 Propose guidelines for developing English communication for boat drivers providing ecotourism services. Mahasawat Canal, Nakhon Pathom Province

#### LITERATURE REVIEW

Innovative driving, driving boat, providing tourism service

Boat Driver for Tourism Service means a passenger boat that runs in the river or sea, consisting of 3 types of boat which are boat, boat, boat, boat, sailing in the sea in specific area. And other types of passenger ships That has been registered to carry passengers With the objective of serving tourists: Information from the Department of Tourism Ministry of Tourism and Sports

Boat driving education for ecotourism services Mahasawat Canal, Nakhon Pathom Province Year 2543 was established as an agricultural promotion group using the name "Agricultural Tourism Promotion Group Cruise along the Mahasawat Canal". There are 30 members, managed in the form of a committee. To facilitate communication with various departments, including the president, vice president, secretary, treasurer and public relations Including the various committees

On 29 September 2006, it was registered as "Community Enterprise for Agro Tourism, Cruise along the Mahasawat Canal" as another way of tourism. In addition, tourists will enjoy the scenery. Which is already beautiful on the bank of the canal Also gaining knowledge about agriculture And ways of living, culture, traditions, interesting Mahasawat Canal Located at Phutthamonthon district Nakhon Pathom Province

Theory and research related to boat driving for tourism service

Sawat Chidchim 1, Somkamon Phattharakit Sophon 2, Sirinapa Khao Phongampai 3 (2012). Research on the development of the model of cultural tourism in the Nakhon Chai Si River Basin Gave the suggestion that there would be related departments Came to help with safety In tourism If being a Thai tourist, can also inform basic practices Fewer mistakes in service But if being a foreign tourist using only sign language Causing the communication to be incorrect

### RESEARCH METHODOLOGY

# Samples and data collection

Research on English communication model development for boat drivers in conserving tourism services Khlong Mahasawat, Nakhon Pathom, has applied these concepts and theories to study as follows

- 1. History of ecotourism Mahasawat Canal, Nakhon Pathom Province
- 2. Concept of conservation tourism development Mahasawat Canal, Nakhon Pathom Province
  - 3. Concepts and theories about agricultural tourism
  - 4. Review of literature and related research

#### **RESULTS AND FINDINGS**

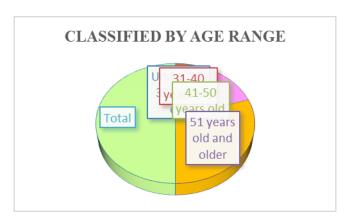
The study results of Develop English communication styles for boat drivers providing ecotourism services Khlong Mahasawat, Nakhon Pathom Province, presents as basic information for collecting evaluation forms of boat drivers providing ecotourism services. Khlong Mahasawat, Nakhon Pathom Province, consisting of 15 people, with students at the College of Cinema 3 groups of creative and digital media year 2 were questionnaire designers and designed this questionnaire to collect basic data for this research, especially as follows

- Part 1 General information of respondents
- Part 2 Basic information in English
- Part 3 Information that the sample wants to develop for themselves

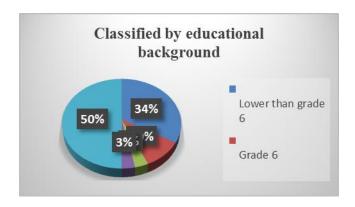
# **General information of respondents**



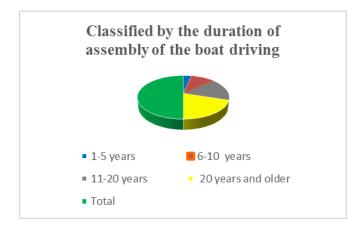
From Table 1, it is found that the majority of the survey respondents are female, consisting of 8 people, representing 53.33% and 7 males, 46.67%.



From Table 4, it is found that most of the survey respondents have been working as boat drivers for the longest time for more than 20 years, with 6 people representing 40.00%, followed by a 5-year period of 5 people, representing 33.33% and 6- 10 years, 3 people are equal to 20.00% and the smallest period is 1-5 years, 1 person is 6.67%



From Table 3, it was found that most survey respondents of educational level were lower than Primary 6, consisting of 66.67 percent, followed by Primary 3, consisting of 3 people, representing 20.00 percent and the lowest, grade 3. And bachelor degree study, amount 1 person, representing 6.67%



From Table 4, it is found that most of the survey respondents have been working as boat drivers for the longest time for more than 20 years, with 6 people representing 40.00%, followed by a 5-year period of 5 people, representing 33.33% and 6- 10 years, 3 people are equal to 20.00% and the smallest period is 1-5 years, 1 person is 6.67%

Sample group classified by income (For international tourists)

Number of tourists / year	Income / Year	number	Percentage
200-100 people	5,000-1	9	60.00
300-201 people	10,000-5,001	6	40.00
T	otal	15	100

From Table 5, most respondents have income Most have income From 100-200 foreign tourists / year, 60.00% per year, and the lowest income from 201-300 foreign tourists, 6 people or 40.00%



From the table, it is found that most of the respondents are unable to communicate in English at the amount of 10 people, representing 66.67%, followed by a small amount of 3 people, representing 20.00%, and the least but not fluent, 1 person is 6.67 percent

#### **CONCLUSION AND DISCUSSIONS**

The study results of Develop English communication styles for boat drivers providing ecotourism services Khlong Mahasawat, Nakhon Pathom Province, presents as basic information for collecting evaluation forms of boat drivers providing ecotourism services. Khlong Mahasawat, Nakhon Pathom Province, consisting of 15 people

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Found that most survey respondents Want to know the basic communication in English about basic communication, 11 people accounting for 73.33% and boat driving procedures, 4 people, 26.67%

Found that most survey respondents Want to know the basics of English communication in media selection, 14 people accounting for 93.33% and online media 1 person, 6.67%

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# A STUDY OF DIFFERENCES IN STATE POLICIES RELATING TO CONSTITUTIONAL RIGHTS: A COMPARISON OF THE 2007 AND 2017 CONSTITUTIONS

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#### **ABSTRACT**

Humans are social animals that have feelings, thoughts, and when humans are born they have natural rights as well. These natural rights consist of the rights to life and liberty of the people, which are the things that the government should consider first and important in the preparation of each constitution. When each constitution is drafted, protection of rights and liberties of the wider people should be protected. Because rights and freedoms are both legitimate powers that are legally supported by the people, both rights and freedoms are related in many respects. Rights include the right to freedom, as appropriate to the condition and status of all citizens.

From the analysis of theories and concepts regarding rights and freedom comparing the 2007 constitution and the 2017 constitution, it can be seen that in the 2007 constitution, the rights and liberties of the Thai people that are protected by the constitution can be divided into 3 categories which are (1) human rights and liberties, (2) economic rights and freedoms and (3) rights and liberties in political participation.

The 2017 constitution specifies just one right of the judicial process and writes "state duties," which must be done in the administration of the justice process separately, are arranged separately. Regarding the rights of the justice process, the 2017 constitution was deliberately written to be "short and concise" with some important principles still settling in specific collateral to help protect the basic rights of citizens. This includes the right not to be arrested and prosecuted or to face unfair judgment. It briefly specifies rights in the judicial process and covers a few principles, which has the advantage of allowing the constitution to focus on specific rights and freedoms of large principles. Other details have already been specified in the Criminal Procedure Code and other laws

**Keywords:** State policies, liberty, Constitution 2007, Constitution 2017

#### **INTRODUCTION**

Human rights and freedoms are natural things that have been with humans since birth, because they exist in human nature. The true legitimacy of humans is to carry out their own lives.

At present, the constitution of each country is an important foundation of government, regardless of whether the country has a form or system of democracy or socialism. There will be a constitution that prescribes all rights and freedoms. Called constitutionalism "but in practice it may not protect the rights and freedoms of the people But in the universal principles of a democratic country, people will be guaranteed and protected rights and freedoms as long as there is no law restricting people's rights and freedoms.

#### **Concepts of Rights and Freedoms**

Thomas Hobbes, the British social philsopher, said that "preserving life is more about preserving human rights than it is about survival instincts, and protection of life requires political obedience." (Thanet Wongyannaya, 2015, p. 83). In addition, legal theorists of natural law agree that the constitutional establishment must be bound to the rights and freedoms of Humans Above the Nation (Punethep Sirinuphong, 2016, p. 105).

The formation of rights and freedoms became more apparent in Europe around 1215, which was the year that King John of England restricted the power of the crown in the Magna Carta, or the Petition of Right. In the year 1689, England established a law on rights and freedoms, called the Bill of Rights, in which citizens were guaranteed the freedom to speak, debate, and elect ordinary members of the House of Commons (Bowonsak Uwanno, 1995, p. 26). Following this, all modern states that have established Constitutions have focused on enacting rights and freedoms.

#### The Meaning of Rights and Freedoms

The words "rights" and "freedom" both refer to "rights" and "liberty" in general, so they are often used together or combined. In reality, however, the two words have different meanings. This can be seen from the judgment of the Supreme Court 124/2487 that ruled that "rights" are the benefits that people have but will be useful as rights or not. If other people have a duty to respect that benefit, then the right may be said to receive legal protection (Wallop Piriyawattana, 2020, p. 125)

Most law students are interpreters and provide definitions for words such as "rights and freedoms" (without prefixes). Bowonsak Uwanno has defined "rights and freedoms" as "the power to let others do or refrain from doing certain things as we have the right." This compels others to act according to our rights, while freedom means the power to do anything, including the power to choose to do or not to do one thing. This in turn creates a duty of negativity for others to not interfere with the exercise of our electoral behavior. In the same way, it is a duty to prevent us from interfering with the power to choose the behavior of others.

In summary, rights and liberties are a matter of great importance that the state must attach to equality legislation, certification, and protection. As a citizen, when there is a domicile, there is a desire to live peacefully. Other than that, security needs safety of life and the body, and needs to be provided to those people who are in great need. In general, regarding whether or not to receive justice depends on different organizations, as well as whether or not the citizens of each country are fairly protected. As such, respect of the rights and freedoms between countries must be supervised by a national organization, which must come in to monitor. In the past, during the Second World War, there were lessons for the importance of basic human rights, an important condition for peace and progress from many countries.

#### "Constitutional Rights and Freedoms"

The purpose of a constitution is to guarantee humans their natural rights and freedoms. The constitution is therefore a statute of rights and freedoms as part of the state law. The basic principles of the constitution consist of two main principles. The first of these is the determination of relations between government bodies, such as the organization of state structures, the form of the state, the form of governance, political institutions that exercise state power, access to state power, the holding of political positions, and the relations between political institutions. The other principle defines the relationship between the state and the people as a demonstration of rights and duties (Wallop Piriyawatthana, 2020, p. 125).

Constitutional rights are fundamental rights, the exercise of which is confirmed by the state. By allowing the individual to have basic rights which can be used against the state or guardians of the state, the constitution recognizes that each citizen is born with dignity and is legally equal as a universal principle. Humans are the rights-holders, and possess power that can be used against the state or its guardians (Worachet Phakirat, 2015, p. 385).

The United States is the first country to guarantee human rights and freedoms in the constitution, and the first country in which all citizens understand their rights and freedoms and can use basic rights and freedoms to fight against state power. Equal rights have become a legal institution due to the Declaration of Independence of 1776 (Bunsri Miwongsuk, 2016, p. 396). The United States constitution became the prototype for further constitutions. The later French constitution was based on the Declaration of the Rights of Man of 1789.

After Thailand changed its political administration in 1932 and established the Siamese Constitution of 1932, the rights and liberties of the people were enacted.

The Thai Constitution of 1974 was established after the political crisis of October 14, 1973, by establishing a legislative assembly known as the "Racecourse Council" in order to select legislators for the drafting of the constitution. It is said that this was a very democratic constitution that provided clear protection to the rights and freedoms of the people.

The preparation of the relevant constitution, taking into account the protection of rights and liberties of the people, is always important. This can be seen in the 1997 Thai Constitution, known as "Citizen's Constitution." The Constitutional Assembly that drafted this constitution established a framework "has an important point to promote the protection of rights and liberties of the people, let the people participate in governance, and examine the exercise of state power to a greater degree." In the preparation of the 2007 Thai Constitution, the Constitutional Assembly adhered to the same framework and expanded the scope of protection of rights and liberties, as well as stipulating parts for the understanding of the people protected by the constitution. Later, in the preparation of the Thai Constitution of 2017, the rights and liberties of the Thai people were introduced, provided in Section 3, Article 25-49 (Suthep Iamkong).

# Government Policy Differences regarding Rights and Liberties under the Constitutions of 2007 and 2017

The 2007 constitution and the 2017 constitution were both established by military juntas. However, their creators designed them to be very different.

Suthep Iamkong of the King Prajadhipok Institute described the intention of the Constitution of the Kingdom of Thailand in 2007, showing oits progress in protecting the rights and freedoms of the Thai people. The twelve major points of the constitution are divided as follows:

- 1. The use of power by government organizations with the intention to protect the human dignity, rights and freedoms of Thai people from any exercise by all government organizations.
- 2. Equality with the intent to define an equality principle and non-discrimination against people with differences that are equal in law and are equally protected by law.
- 3. Personal rights and freedoms with the intention to guarantee the rights and freedoms of life and body in the dwelling place, choice of residence, traveling, honor, fame, privacy, personal communication, religion, and state protection from forced labor.
- 4. Right to justice, with the intention to protect the rights and freedoms of people concerning criminal liability. Crimes are not to be punished heavier than that provided by the

law at the time of committing the offense. Equal protection and easy access to justice, and obtaining legal assistance, both civil and criminal.

- 5. Property rights with the intention of guaranteeing the security of property ownership and insuring the rights of property expropriators with fair compensation requirements.
- 6. Rights and freedoms of occupation with the intention to ensure freedom of occupation, fair business competition, safety, welfare and livelihood of workers.
- 7. Freedom of opinion of individuals and the media, with the intention of protecting the freedom of expression of people and the media by speaking, writing, printing, advertising, and prohibiting the state from limiting freedom of expression of persons. Exceptions are made for state security, for international relations, for controlling the rights, liberties, honor, reputation, and family rights of others, to maintain order or good morals of the people, or to prevent mental deterioration or deterioration of public health. Also the state is prevented from shutting down newspaper businesses, radio broadcasts, and television, and required to protect and allocate fair frequency, to fairly involve people, and to prevent consolidation of cross-media rights holdings.
- 8. Right to education and freedom of education, with the intention to ensure that people are equal in education for not less than twelve years, from primary school to upper secondary school or equivalent. The government must provide thorough, quality, and suitable education for students. Protection of academic freedom that is not against citizenship duties or good morals.
- 9. Right to receive public health services and welfare from the state with the intention to equal public health services from the state, to protect the rights of children, youth, women, people with disabilities, and the elderly.
- 10. Right to information and complaints, with the intention to protect access to public information, perception and listening to public opinion, grievances, disputes, and administrative practices, and to protect the rights of individuals in lawsuits against government agencies.
- 11. Freedom of assembly and association, with the intention to protect the freedom of the people in peaceful and unarmed assembly, protect citizens to conveniently use public areas, protection for members of a group, association, union, federation, cooperative, farmer group, non-governmental organization, and protection of the establishment of political parties in order to carry on the political will in accordance with the democratic regime of government with the King as Head of State.
- 12. Community rights, with the intention to guarantee the rights of local community. Protection of people involved in the conservation, maintenance and use of natural resources
- 13. Right to protection of the constitution, with the intention of protecting the democratic regime of government with the King as Head of State. Protection of people in peaceful resistance against acts in order to gain power in governing in an unlawful way.

It can be seen that the rights and freedoms of Thai citizens protected by the constitution can be divided into 3 categories which are (1) personal rights and freedoms (2) economic rights and freedoms and (3) political rights and freedoms.

The 2017 constitution specifies the right to justice in only one section, Article 29, and writes that "state duties" must be done in the administration of the justice process separately in Article 68. This is different from the 2007 constitution, although it uses the same two section. However, it is divided into "Part 4" on the rights in the justice process, especially the

2017 Constitution, deliberately written to be "short and concise" with some important principles that are still settled.

One of the outstanding points of the 2017 constitution is the first division of Section 5, or "state duties". This requires the government to provide services to the public. There are advantages to setting requirements as a function of the state, which the state must conduct on its own, without citizens asking. However, many issues that used to be "rights of the people" were rewritten by moving them to the category "the duty of the state." This theoretically changes from the original principle of "citizens have rights" in which citizens are the main players to make this right a reality. Now that these rights are "state duties," the result is that the state becomes a major player and the people only have the role of "waiting to receive" the services provided by the state.

The state should provide necessary and appropriate legal assistance to the underprivileged or disadvantaged in accessing the justice process. This including the procurement of lawyers, as well as upholding legal rights. However, these rights were changed to "state duties" according to the 2017 constitution.

Neither the 2007 and 2017 constitution guarantees the rights of detainees to find and consult with a lawyer, nor the right to be visited directly. However, the Criminal Procedure Code, Section 7/1 has provided this right. Detainees still therefore reserve these rights by referring to Section 7/1. In practice, however, there is deliberately and systematic avoidance of section 7/1, especially from military personnel.

The 2017 constitution is missing protection for many rights. When comparing the writing of the protection of rights in the judicial process under the two constitution, the 2007 and 2017 editions, it can be seen that the 2017 constitution has fallen short in rights to the judicial process. It covers the fewest principles possible, which has the advantage of not allowing the constitution to be too long and focusing only on the major principles. Other details are covered by the Criminal Procedure Code and do not need to be written again.

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# ABOUT HUI CAR RENTAL NETWORK INTEGRATED MARKETING PROGRAM DESIGN AND IMPLEMENTATION

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#### INTRODUCTION

#### 1.1 Research background and significance

With the continuous breakthrough of science and technology, especially information technology, the research environment of marketing and communication science and the realization environment have changed very much, two of which are particularly obvious: the change of consumer mentality, the change of media and communication channels. The accelerated development of the Internet has brought many new media channels, different media transmission methods are different. The way users receive media messages becomes more fragmented, and these changes have severely impacted traditional media and communication methods, but have also opened up space for new marketing and communication environments. However, the internet's spread dividend is gradually decreasing, and the cost of online diversion is also increasing. The traditional single marketing model and communication mode can not adapt to the way consumers receive information, so it can not help enterprises to find target consumer groups and pass valuable information. This sense of crisis is particularly evident in enterprises with new businesses, which need to use network integrated marketing to match users and media resources of different structures through accurate analysis on the basis of indepth study of the business needs and behavior of of the target customer base, as well as various media resources of the Internet. For enterprises to provide more accurate personalized network marketing integration programs. Hui car rental is no exception.

Hui Car Rental is an online vertical booking website for outbound self-driving car hire, established in 2014. The website offers a wide range of small and medium-sized car rental companies, including large chain car rental companies, to integrate online booking information for car rentals worldwide through instant search technology. According to the National Tourism Administration, china's number of outbound trips exceeded 100 million in 2014, according to the 2012-2013 China Self-Driving Tour Development Report issued by the China Tourist Boat Association and the Tourism Research Center of the Chinese Academy of Social Sciences. In recent years, with the improvement of material life and people's travel mentality of the growing maturity and diversification, China's outbound self-driving tour market is in a continuous growth of the rising channel. But at present, China's outbound self-driving market is still in its infancy, there is not a franchise outbound self-driving service of large-scale tourism operators, both outbound self-driving products of tourism enterprises also do not fully understand the market. As a pioneer in the outbound self-driving market, Hui car rental faces a variety of challenges. At the end of the day, it's the traffic acquisition problem.

Combined with the current situation of the market, the use of the Internet to integrate marketing means of communication, consumers to transmit information as the core. Spread the most valuable message at every possible point of contact of the target consumer, hit the user's pain point, and create a comprehensive multi-angle cross-media integrated marketing communication system. It is of great significance to show the brand connotation through marketing communication activities and thus promote the transformation. In the process of integrating marketing communication, Choosing a touch point is especially important. Due to the small number of overseas self-driving groups, users on the Internet behavior is more dispersed, consider the user actively search the search engine related keywords, we follow up

the search terms to capture users; To achieve the purpose of dissemination. So the focus of this article is search engine marketing and social marketing. Network integrated marketing theory plays an increasingly important role in marketing, especially in the Internet era today. Research Hui car rental and industry status analysis, for its design network integrated marketing program and implementation, but also let me on the network integration marketing communication theory has a further familiar with and use of the opportunity, but also the deepening of marketing understanding, in the future better use of network integration marketing communication theory to enterprise practice.

#### 1.2 Analysis of the current situation of relevant research at home and abroad

1.2.1 Analysis of the current situation of foreign network integrated marketing communication research

For network marketing, foreign research and applications in front of the world, has a better theoretical basis. In 1990, Robert Lauterbom, an American marketing expert, first proposed the 4C theory from a customer's point of view. 4C theory, i.e. Consumer (customer desire siacity and demand), Cost (cost of satisfying desire and demand), Convenience (convenience of purchase), Communication (communication and communication).

Elliott Ettenberg and Don Schultz of Northwestern University. On top of the 4C theory, Schultz's team built a 4R theory theory, namely: consumer relevance, reaction speed (Reaction), relationship marketing," appreciation and reward (Retribution). After that, Professor Schulz perfected the 4R theory and put forward the idea of 5R theory, see Table 1.

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5R 理论	描述/重点
Relevance (相关性)	消费者需求
Receptivity (接受度)	消费者知晓产品的渠道
Response (响应力)	企业应对消费者需求
Recognition (识别度)	企业美誉度
Relationship (关系)	消费者与企业相互促进关系

Table 1 5R Theory

In 1993, Professor Schultz, then at Northwestern University, and others published "Integrated Marketing Rebroadcasting". The book mentions that the integrated marketing communication process is a strategic implementation process that serves the brand communication plan of the company's business. This process includes programming, optimizing, and implementation, and it must be coordinated, monitorable, measurable and persuasive. Schultz believes that in order to complete the purpose of building a bridge between brands and consumers, the integration of marketing communication is a necessary means. Integrated marketing communication not only realizes the perfect integration of marketing communication tools, media information, touch point management and information communication integration, but also achieves the perfect integration of each stage of time and space. Integrated marketing communication to the enterprise external activities (sales promotion, public relations, channel advertising, commodity packaging, etc.) to carry out a monism of information integration, so that consumers no matter what media can obtain the brand's unified caliber information enhance the brand's image in the hearts of

consumers. At present, integrated marketing communication in the media promotion has dominated the world's mainstream enterprise brands, application in a variety of fields.

In his book "Integrated Marketing Communication", Professor Schultz's definition of the concept of integrated marketing communication has laid the cornerstone of the new marketing communication theory of integrated marketing. The view point of the book shows that marketers should change their thinking mode from production-oriented to consumer-oriented, in the past, the academic and industry often referred to "consumer attention" has not been applicable to developing societies, but need to focus on "pay attention to consumers", the book systematically describes the concept of integrated marketing communication, and even specific methods of operation.

In the Internet era today, although there are still different fields and industries of scholars on the theoretical basis of integrated marketing communication, development and definition of different views, but can be agreed that a more systematic integrated marketing communication theory should be more realistic and operable. At the same time, with the help of Internet information technology, integrated marketing communication is no longer as before only based on the theoretical projection stage, the dissemination effect can be effectively monitored and evaluated in real time, while facilitating the study and improvement of the theory by scholars.

1.2.2 Analysis of the current situation of domestic network integrated marketing communication research

Professor Jiang Xuping of Tsinghua University equates network marketing with network integrated marketing communication, which was first put forward in his 2006 article "Network Integrated Marketing Communication: The Trends of Contemporary Marketing". In this paper, the network integrated marketing communication is a definition: network integrated marketing communication is the use of the contemporary network environment to carry out various marketing activities, is the extension and development of traditional marketing communication in the network era, is the enterprise to integrate a variety of media combination marketing communication tools, methods, strategies and processes.

In practice, people have entered the Internet era, scientific and technological innovation capacity has been greatly enhanced, the media communication mode has changed from the original authoritarian one-to-many forms to niche and peer-to-peer communication forms. Tokyo Telecom headquarters summarized the latest marketing communication planning weapon IMC 2.0 version; the planning steps are divided into six stages

**Table 2 Cyber Integrated Marketing Planning Steps** 

阶段	描述
第1阶段	确认客户营销目标
第2阶段	分析市场情况,收集各方面洞察
第3阶段	设定传播目标
第4阶段	设计讯息
第5阶段	接触点管理和策划
第6阶段	监测结果

#### 1.3 Research objectives and content

### 1.3.1 Research Objectives

The research objectives of this paper are to integrate the concept and characteristics of marketing through the Internet, the current situation of Hui car rental analysis, user research and analysis, make full use of the resources on the Internet, for Hui car rental planning a feasible network integrated marketing communication program (focusing on search engine marketing and social marketing), and put into practice, to help Hui car rental to expand visibility and market share.

#### 1.3.2 Research

This paper is divided into four parts, the theoretical review of network integrated marketing communication, the analysis of the current situation of hui car rental, the design of the network integrated marketing communication program, the implementation of the program and the effect of the show.

(1) An overview of the theory of network integration marketing communication

Through the literature, to understand the new discoveries of various stages of theoretical research in marketing, to study the evolution of integrated marketing communication, to learn the characteristics of network integrated marketing communication and dissemination model, to do a good theoretical support for the study of the full text.

(2) Analysis of the current situation of hui car rental

A comprehensive and detailed analysis of the Hui car rental website is the prerequisite for the development of network integrated marketing communication program. This section includes macro and micro market environment analysis, competitor analysis, target user research, SWOT analysis. Learn more about Hui Car Rental and its customers, and prepare for the design of the network integrated marketing program.

(3) Network integrated marketing communication program design

In this paper, Hui car rental network integrated marketing communication program mainly includes search engine marketing and social marketing. The optimization of search engine marketing includes keyword deployment strategy, creative description optimization strategy, ranking strategy, landing page optimization strategy, etc. Social marketing includes the planning of interactive products (implemented with Html5 technology) and topic marketing.

(4) Programme implementation and effectiveness assessment

According to the design plan, the preferential car rental network will be integrated marketing communication program implementation, and monitor the implementation effect, including the effectiveness monitoring mechanism of the implementation and effectiveness assessment.

#### 1.3.3 Research methods and technical routes

#### 1.3.3.1 Research methodology

This paper is more practical, in Hui car rental network integrated marketing communication program design, need to Hui car rental and its industry environment, network integration marketing communication law and other issues to carry out solid research and analysis. Here's how:

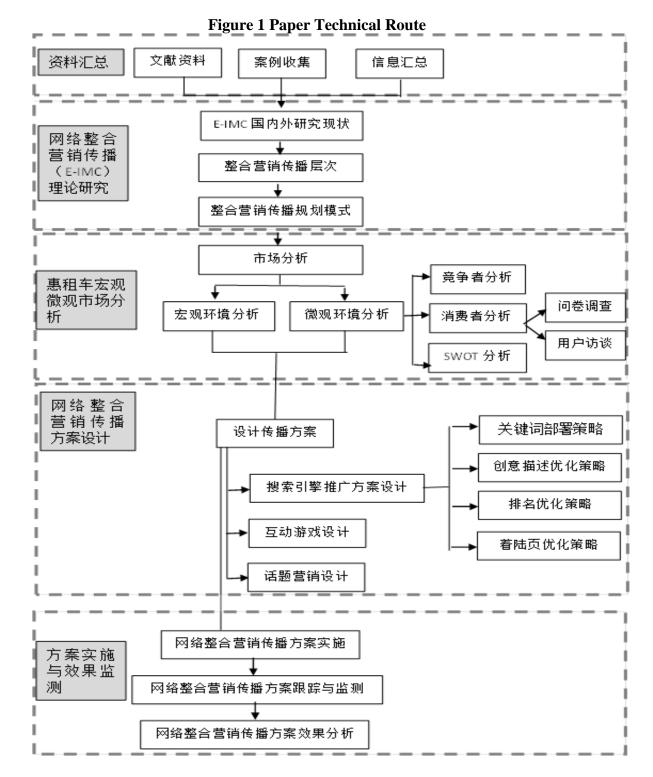
- (1) Documentary research method. Using the network and book materials to collect and organize the research results of the phase theory and practice of network integrated marketing at home and abroad, to understand the current situation of industry research and the latest research direction of network integrated marketing communication at home and abroad, to analyze the advantages and disadvantages of these studies, to make up for each other, and to find support for the theoretical basis of the full text.
- (2) Interview method. Prior to the design of the questionnaire, users who had experience of renting a car overseas, as well as those who were interested in overseas self-

driving, learned about their attitude towards overseas self-driving, the needs of overseas car rental companies, online booking habits, self-driving travel behavior, in order to facilitate targeted questionnaire design. After the questionnaire design, the test survey a small number of users, observe the user's response to the question, test the reasonableness of the questionnaire design questions.

- (3) Survey method. This study collected a survey of overseas self-driving users by means of questionnaires, to understand the user's behavior and consumer psychology about overseas self-driving car rental, as well as the demand and psychological expectations of overseas self-driving websites. Use questionnaires to collect data.
- (4) Case study method. Before the paper is officially written, a large number of online tourism sites are collected and compared, looking for their network integrated marketing communication cases to study, comparing the marketing communication strategies applied in these cases, analyzing the advantages and disadvantages of different websites in the marketing communication process and the solutions for disadvantages, Find a marketing strategy that is suitable for the rental car.

#### 1.3.3.2 Technical Routes

As shown in Figure 1, the technical route of this paper mainly includes data aggregation, network integrated marketing communication theory research, hui car car macro-micro market environment analysis, network integrated marketing program design, program implementation and effect monitoring.



**Chapter Two Summary of Network Integrated Marketing Communication Theory** 

#### 2.1 Integrated marketing communications

#### 2.1.1 Definition of Integrated Marketing Communication

Marketing communication is a branch of marketing science. In 1960, McCarthy published Basic Marketing, which summarized the components of marketing theory as 4P, i.e. products, prices, channels, and promotions. In the 4P theoretical framework, marketing communication is subordinate to promotion. With the continuous evolution of the consumer market, consumer behavior and consumer mentality also changed, the United States

marketing experts pay more attention to the position of consumers in marketing, in 1990 put forward the 4 C theory, in the 4 C theory, "promotion" was "spread", or "communication" replaced, marketing communication for the first time to "spread" "The name is incorporated into the marketing mix, defining integrated marketing communication as a communication process."

In 1998, the Schultzs, through the research on how to carry out integrated marketing communication program son from the perspective of the enterprise, fully considered the practical significance, the marketing communication is in the ever-changing environment of this important feature into the scope of thinking, re-commenting on the concept of integrated marketing communication. The definition is that integrated marketing communication is a strategic communication process for the purpose of brand communication programs, which is coordinated, monitorable, quantifiable, and persuasive. This process involves consumers, potential consumers, channel linkers, and other internal and external audiences.

The fundamental difference between the new definition and the old definition is the emphasis on "business processes" and the new definition elevates integrated marketing communication to the strategic position of enterprise development. Since the process of communication itself is not entirely controlled by the enterprise, the content and impact of the communication will be combined with the communication signal sending by the enterprise in the current environment, in this process requires the enterprise to ensure that the entire strategic process is measurable and reviewable, the enterprise needs to monitor the information transmission of the various dimensions and the final dissemination effect. At the same time, in the new definition, the traditional marketing channels are supplemented, the definition of marketing channels should be broader, including all possible contact points between brands and consumers. Finally, the new definition of "relevant internal and external audiences" shifts the focus on marketing communications from focusing on consumers to all audiences that may be reached in all communications, including people, time, space, and so on. In the new definition, the Schultzs argue that the focus of integrated marketing communication should be to uncover key "touch points" that affect brands and users in order to deliver brand messages more effectively at touchpoints. However, whether it is the integration of communication content or communication tools, the purpose of both is to establish a good relationship between brand and consumer. Communication content integration is the basis of communication tool resource integration, communication tool resource integration promotes and amplifies communication content integration.

#### 2.1.2 Integrated marketing communication model

In 1993, Tom Duncan, director of the University of Colorado's Graduate Program for Integrated Marketing Communication, started with communication and spread to other areas that might be involved, giving four levels of integration of marketing communication, as detailed in Table 3. These levels reflect a step-by-step extension of integrated marketing communication activities: from a single closed one-to-many single-threaded monologue, to an open, multi-to-many dialogue, and finally from the bottom consumer penetration into the entire enterprise and drive the transformation of corporate communication strategy.

The choice of the media is not only limited to the closed one-to-many single-type communication in the past, but also includes open multi-modal communication, including various traditional communication channels, but also a variety of network media, new media. In the marketing communication activities, understand the various media in different users of the contact points, the media carefully assessed and divided, can better enhance the consumer experience, more natural and effective contact with brand messages. As shown in Table 4.

Table 4 Six steps to integrating marketing communications

Step1	Indentify target Audience	确定目标客户
Step2	Analyze SWOTs	进行 SWOT 分析
Step3	Determine MC Objective	决定营销传播的目标
Step4	Develop Strategies and Tactics	制定传播的战略和战术
Step5	Set the Budget	制定预算
Step6	Evaluate Effectiveness	评估效果

In 2004, Schultz et al. published a new book, "New Integrated Marketing", in which a new and complete integrated marketing communication planning model was described. The model is divided into eight steps. Step 1: Consumer relationship management. At a minimum, this database should contain consumer behavior statistics, consumer psychological statistics and consumer consumption records. Step 2: Consumer classification. Pave the way for market segmentation. Step 3: Touchpoint management. Businesses choose when or when, where, to communicate with consumers or present brand information to consumers. Step 4: Customize the communication strategy, in what environment to convey to consumers what content information. Step 5: Identify the brand network. Step 6: Determine marketing objectives, split according to communication goals, and set marketing goals with monitorable, quantifiable target specifications. Step 7: Integrate the use of communication tools. Use one or more marketing tools to achieve your marketing goals. Step 8: Choose the tactics that will help you achieve your goals.

In 2005, Don Schultz's new book, Integrated Marketing Communication: Five Key Steps to Creating Corporate Value, described the five-step process of integrating marketing communication. Step 1: Identify customers and prospects, step two: assess the value of customers and prospects, step 3: plan information and incentives, step four: assess customer return on investment, step five: analysis and future planning after project execution.

#### 2.2 Network Integrated Marketing Communication

# 2.2.1 Network Integration Concepts and Models of Marketing Communication

Network integrated marketing communication (E-IMC) and traditional marketing 4P, traditional marketing 4P more value "product perspective", network integrated marketing is more important to "consumer perspective", that is, relative to "product", more concerned about "consumer internal needs and external behavior", thus providing consumers with products to meet the needs of users; Weakentheding the materialized value of products, emphasizing concern about "the cost that consumers are willing to pay to meet their own needs" is relative to "channels", emphasizing consideration of "how to make goods more accessible to consumers" relative to "one-way promotion", and emphasizing the emphasis on "communication with consumers, or even interaction" on the 4C theoretical basis, The 4I principle of network integrated marketing is developed: "interest principle, interest principle, interest principle, personality principle".

# 2.2.2 4C and 4I principles of network integrated marketing communication

Network integrated marketing communication (E-IMC) is to rely on communication channels to achieve direct communication with customers, through a variety of marketing interactions, to establish the relationship between brands and customers. Compared with traditional marketing 4P, network integrated marketing is more "customer-centric" than the 4P theory, preferring "customer-centric", the core of which is the 4C theory put forward by Professor Schulz: that is, relative to "products", emphasizing the focus on "customer needs and desires" (consumer wants and needs), to provide products that can meet this need and

desire; Emphasis is placed on "cost"that customers may pay to meet their needs and desires, on considering "convenience for customer purchases" than "channels", and on "two-way communication with customers" as opposed to "one-way promotions". On the basis of 4C theory, the 4I principle of network integrated marketing has been developed: "Interesting interest principle, Interests interest principle, Interaction principle, individuality principle".

### Chapter Three Environmental Analysis of Hui Car Rental Market

### 3.1 Macro Market Analysis

#### 3.1.1 China's overseas travel market size

In recent years, the development of outbound travel has been hot. China Tourism Research Institute released the "China's Outbound Tourism Development Annual Report 2015" predicted that in 2015 China's outbound tourist spree will increase by more than 16 years yoy, continuing to lead the global outbound tourism market. According to the National Tourism Administration, in 2014, for the first time, The number of chinese outbound visitors crossed the 100 million mark, and according to the State Council's Opinions on Speeding Up Tourism Reform and Development, the annual travel rate of Chinese residents is expected to reach 4.5 by 2020. China's outbound tourism development annual report 2015 also pointed out that China's outbound travel market shows a rapid development trend, regardless of the number of travel agencies, the number of outbound countries and regions have a steady growth. Coupled with the "National 12th Five-Year Plan Outline" of the tourism industry's strong support, foreign countries' visa favorable policies, the prosperity and development of online tourism and a series of opportunities, China's outbound tourism market growth momentum remains strong.

2016 is the Year of Tourism between China and the United States, and the Chinese and American governments have made great contributions to this tourism cooperation, providing many favorable policies for tourists from both countries to visit each other. And promote the restaurant industry, hotel accommodation, aviation and other industries of the discovery. As a popular destination for overseas self-driving tours, the U.S. Tourism Board will provide more and more convenient services for overseas self-driving. The United States is a country on wheels, with many magnificent natural scenery, choose self-driving is the most suitable way to travel, but also more and more popular with young people.

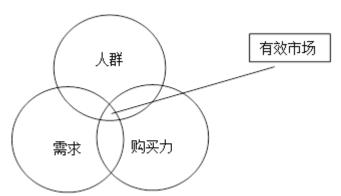
#### 3.1.2 The size of the motor vehicle driver population in China

By the end of 2014, the number of motor vehicle drivers in China exceeded 300 million, of which 180 million were drivers with small car drivers' licenses. The number of private cars has reached 104 million, with an average of 25 private cars per 100 households. The number of private cars and the number of drivers reflects the economic strength of China and the increase in people's purchasing power. China's running into the automobile society, the huge number of driver's license holders and private car possession makes people's travel become convenient, driving travel habits are gradually cultivated. Self-driving as a new way of experience tourism is also more and more accepted and liked.

#### 3.1.3 China's overseas self-driving tour market size

According to the results of market research provided by the international chain car rental company brand Anfeishi, since 2011, overseas vehicle short-term rental, car rental self-drive tour and other products have gradually been recognized by the market. In 2011, the total number of people renting a car in the U.S. was about \$84 million, accounting for 0.4 percent of the U.S. car rental market, according to driver's license statistics checked by the rental car company. In 2012, it grew to US\$254 million, up 202 year-on-year and growing rapidly. According to an estimate of an average of \$300 per\$300, there were 850,000

outbound self-driving vehicles (for Chinese) across the United States in 2012. According to data provided by Hertz and Afes, the proportion of destinations Chinese outbound self-driving cars to the United States is about 60 (in terms of turnover), so it is estimated that the size of the entire Chinese outbound self-driving market in 2012 was 1.41 million individuals, with a business volume of about \$420 million. In 2012 alone, 1.41 million groups of touristgroups experienced a self-drive tour abroad, and the resulting amount of other spending was even more immeasurable. According to the 2012-2013 China Self-Driving Tour Development Report, the proportion of self-driving travel intentions has reached 21.2. With the improvement of national income, the improvement of people's material living standard, residents' awareness of the pursuit of spiritual life and the experience of tourism has been maturing, and China's outbound self-driving tour market has increased rapidly and the prospects are huge.



**Figure 3 Efficient Market Analysis Chart** 

#### 3.1.4 Whirlpool Car Survey

Hui Car Rental was established in May 2014, the main business of the global car rental vertical search comparison website, is committed to meet the needs of Chinese outbound self-driving car rental. Hui Car Rental is now able to instantly search and book car rental information in more than 180 countries around the world, and Hui Car Rental has received nearly US\$10 million in financing in August 15 years.

At present, the website is divided into 3 functional areas. The first functional area for overseas self-driving car rental and overseas transfer booking area, including vehicle information retrieval, order filling and other segmentation functions, but also the site exists the greatest value. On the vehicle information retrieval page, Hui Car Rental provides multidimensional information such as car rental company brand, store address, preferential information, driver's license policy, insurance quotation, user word-of-mouth, additional services, etc., so that users can choose their vehicles according to their own needs. The second functional area is the driver's license translation processing area. To rent a car abroad, a Chinese driver's license is a valid driving document recognized by law, but it is necessary to handle both a driver's license translation or a public license document, many users are not aware of this. Hui car rental for this user pain point, opened a free driver's license translation online self-service function. The third ribbon is a featured service area. Overseas self-driving for most users are full of unknown, Hui car rental to help users before travel to solve the problems that may affect the quality of travel, for users to provide exclusive overseas selfdriving essential services, one of which is free GPS rental. Self-driving abroad without GPS is unthinkable. Hui Car rental offers a free GPS rental service for every user who places an order, and as long as you book a vehicle, you can also rent a GPS with a map of the rental car's destination. Another special service for overseas self-driving supplement full insurance, at a reasonable price, to provide guests with personal and property insurance services.

From the overall structure of the website, the main business of hui car rental is vehicle booking. However, from the user's point of view, the purpose of booking a car is to travel, whether to solve the user's decision to make a reservation of a vehicle before the difficult problem, directly affect whether the user will be in hui car rental car reservation. Self-drive travel abroad as a newly popular way of travel in recent years, try more and more people. But travelanome is much higher than domestic travel, with group tours, local conditions, travel strategies and other information acquisition costs are much higher. Self-driving as one of the higher threshold of participation, but also the most interesting part, there are a lot of pain to be resolved. Hui car rental has done a lot of work to this end. In addition, Hui car rental mobile products - Hui car rental APP is also in preparation.

#### 3.2 Competitor Analysis

The analysis of competitors helps to sort out their own problems, better position the enterprise, and see the surrounding environment. The Porter Five Force model summarizes five main sources of different competitive factors and integrates them into a simple model to analyze the basic scale and degree of competition in an industry. These five forces are the degree of competition of competitors, the threat of potential entrants, supplier bargaining ability, buyer's bargaining ability and the threat of alternatives, in this case, this planning to use the Porter five-force model to analyze the competitive brands in the outbound self-driving market segment, so as to clarify the competitive sources and extent of the car rental.

### 3.2.1 Level of competition from competitors

China's outbound self-driving car rental market started late, the first outbound selfdriving car rental online booking platform - rental car rental in early 2012 officially launched international car rental services, when Chinese users outbound travel did not form an explosive growth, belonging to high-grade, high-cost travel. At that time, domestic self-driving is just beginning, overseas self-driving is a very small way of travel. Chinese users have a low level of awareness of overseas self-drive car rental, and many problems have not been solved. For example, users on the driver's license can be used, how to buy insurance reasonable, traffic regulations concerns, language problems. Renting a rental car in 2012 was also mainly groping. At the end of 2013, the overseas self-driving channel, built by Ctrip's Car Business Unit, was launched, providing self-driving car rental services in 86 countries around the world. Ctrip's overseas self-driving channel, as an important layout point for Ctrip's overseas ground transportation, is an important component of Ctrip's efforts to open up upstream and downstream industries and improve the one-stop user experience. However, because Ctrip's development focus is still air tickets and hotels, the car business unit is only its strategic layout in order to improve the entire tourism business line, overseas self-driving channel is only a small branch, has not been taken seriously. It was in the segments that the giants were temporarily unable to take into account that the booming scenes of many start-ups emerged in 2014. It is also in 2014, Hui car rental website officially launched, from the basic booking function to start, based on the current stage of user habits to cultivate and outbound visitors to the double market advantages of the dividend, rapid development. Also on the line at the same time is my fun network's overseas car rental channels.

Overseas car rental sites need access to the global car rental company's real-time booking system, which is not particularly perfect technical environment, large to car rental brands, covering cities, small to store addresses, business hours, a lot of raw data accumulation work needs to be perfected, and competitors are currently in a similar state, At present, the brand in the market from the supplier channel, website (channel) operating capacity, product output point of view, is still in infancy, and there is no particularly topnotch company, homogenization phenomenon is more obvious, industry competition is increasingly fierce trend.

#### 3.2.2 Threats from Potential Entrants

The spending power of tourists traveling abroad is increasing at an accelerated rate every year, highlighting the overall tourism market, where more and more companies want a piece of the pie. In the travel consumption ecosystem, car hire is a very important means of transportation to connect and collude with ground attractions. With the car, people travel will be a wider range of travel, tourism is no longer a rush, take pictures of attractions, but as you like, planning a fully personalized travel route, feel the local atmosphere and niche scenery, the travel experience will be greatly enhanced. From the point of view of driving economic consumption, the existence of vehicles is equivalent to moving luggage, completely free hands, liberate purchasing power, drive more consumption capacity. As an important part of tourism traffic, it is very important for large online travel companies to collect big data from users and complete the closed-loop of travel behavior data. So under Ctrip's leadership, other large online travel companies will become potential entrants.

In addition, the major international car rental companies are also very optimistic about the development of China's tourism market. In addition to working with B2B on car rental platforms such as Hui Car Rental, two global chain car rental industry leaders, Hertz and Avis, have set up Chinese online booking sites and launched Chinese customer service to improve travel services for Chinese. Intend to bypass the preferential car rental, rental car, such as Chinese booking agent-owned front door, including business travel, retail online booking business. With the continuous opening up of China's visa policies with other countries, China's voice in the international market is growing, and it is not ruled out that other international chain car rental companies continue to follow up and increase business for C-side users. In addition, some of the more established international car rental online booking agents are also joining the competition. Launched in 2015 Chinese booking channeltos to optimize the layout of the website for the browsing experience of Chinese guests, such as Rentalcars.

#### 3.2.3 Supplier's Bargaining Power

For platform sites, the main suppliers are accessed car rental companies, including large chain car rental companies and professional local car rental companies. The quality of cooperation and service cooperation of suppliers play a very important role in the quality of the platform, and even related to the survival and development of the platform. At present, major car rental companies and Hui car rental cooperative relations are good, while actively welcome to cooperate with the chinese overseas car rental platform to increase their products online across time zones across the geographical distribution channels and brand awareness. However, for the platform side, because the parties have not yet formed a unique brand competitiveness, in the face of the volume of the same-quality competitors, the price has become a very favorable weapon between each other. From this point of view, the supplier's bargaining power is in a state of advantage. It can even be said that the bargaining power of suppliers directly affects the price and discount strength of the platform, further affecting market share and competitiveness. At the same time, with the increase of platform, car rental companies have more choice and bargaining space, car rental platform and car rental company suppliers direct game will become increasingly intense.

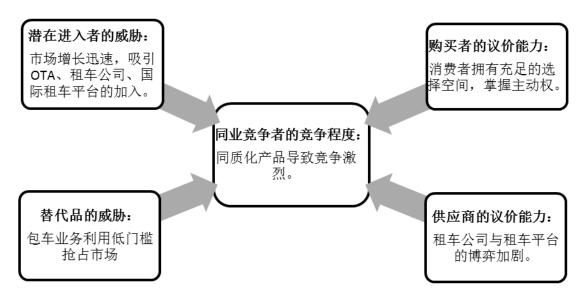
#### 3.2.4 Buyer's Bargaining Power

Overseas car rental is still a certain information threshold of travel, a lot of information is opaque, full of unknown. While this is also a point where overseas self-driving cars attract consumers, from a rational point of view, consumption decisions will only be made when some important factors are finalized. Users who choose this mode of travel have more important considerations than price before considering price. For example, local driver's license policies, traffic rules, customs and culture, route planning, parking and refueling convenience and so on. By contrast, the choice of which car rental company to hire is a slightly less critical decision after making a "drive overseas" decision. Of course, from the perspective of

preferential rental car, the consumer decision-making period to attract users needs to move forward. Because if you can help guests make a decision to "drive overseas", then the choice of a car rental to book a car becomes a drain. In the booking process, booking convenience, pick-up smoothness, after-sales service, rights and interests maintenance and other factors are also the issues to be considered. Therefore, most consumers' purchasing decisions are based on a variety of comparisons and considerations, and prices will be part of it, but they are not so important. Of course, when the user decides to go overseas to self-drive, especially overseas self-driving experienced users, will be in accordance with the past consumption experience and buying habits to choose, which is a very important factor in the price.

#### 3.2.5 Threat of alternatives

Although all companies in the overseas car rental market are trying to lower the travel threshold and optimize the user experience, this way of travel does require users to pay more time and effort. And chartered car (rent a car with a driver) business because does not involve the tourist driving, there is no ability to limit the age of tourists, driving skills, local traffic regulations, route planning, etc., the travel threshold is greatly reduced, but also can help travelers to introduce local food beauty, customs, to provide guided tours. Especially in the low-priced, tourist attractions concentrated in the popular urban areas of Southeast Asia, the advantages of charter edgy is very obvious, is a major threat to the self-driving car rental market.



**Figure 4 Porter Five Forces Analysis** 

#### 3.3 Target Consumer Analysis

In order to better understand overseas self-driving consumers and their behavior characteristics, for the rental car industry network integrated marketing communication program design to provide theoretical support, specifically for the Hui car rental WeChat public fans conducted a questionnaire survey, aimed at understanding the user's information access to outbound self-driving car rental channels, information understanding and pain points. Combined with CNNIC China Internet "2012-2013 China's online tourism booking industry development report", the self-driving out of the population to carry out a reasonable user image, in order to design the network integrated marketing program, in the target consumer every possible point of contact to spread, hit the user pain point, to create a multi-dimensional, Multi-stage cross-media marketing communication system. The analysis is expanded item by item below.

#### ARIFICIAL INTELLINGENCE MANAGEMENT

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#### INTRODUCTION

With the continuous development of national information technology, artificial intelligence is widely used in various fields of management and work, greatly improve the quality of people's work and work efficiency, in the process of daily operation of enterprises and society, people can achieve the established goals with as little expenditure as possible, or with existing resources to achieve the maximum goal. Using artificial intelligence to improve efficiency, can carry out activities and improve work more quickly and effectively, and can further meet the needs of customers. With the help of artificial intelligence, enterprises have made remarkable contributions to the supervision of the market, the regulation of personnel, and the budget of funds, thus saving time and capital cost for the production and development of enterprises. In the face of the impact of the epidemic, the state uses artificial intelligence and big data technology to provide related services, the speed of epidemic prevention and control response and the early warning ability of epidemic prevention and control has been greatly improved and harvested, and the management of personnel and materials has also been effective.

#### LITERATURE REVIEW

"The future of artificial intelligence": interprets the connotation of intelligence, expounds the principle of brain work, and tells us how to make intelligent machines in the real sense —— Such intelligent machines will no longer be simply imitations of the human brain, and their intelligence will far surpass the human brain in many ways. Hawkins believes that from artificial intelligence to neural networks, the previous efforts to replicate human intelligence have not been successful, the reason is that people do not really understand the connotation of intelligence and human brain. Intelligence is the ability of the human brain to compare the past and predict the future. The brain is not a computer. It doesn't follow suit. The brain is a huge memory system that stores experience that reflects the real structure of the world to some extent, can remember the sequence of events and their interrelations, and make predictions based on memory. What forms the basis of intelligence, feeling, creativity, and perception is the brain's memory-prediction system.

#### RESEARCH METHODS

- 1. case analysis. Through the previous SARS outbreak in China for reference. Without the help of artificial intelligence to deploy management, SARS epidemic has not been quickly and effectively fought, and various medical supplies can not be quickly deployed and other problems, resulting in huge losses. Thus, more rapid and effective management of emergency public health events is needed. The article illustrates the role of artificial intelligence management by comparing cases with the current epidemic situation.
- 2. questionnaire survey. Through the questionnaire survey, whether the artificial intelligence management of residents is more effective to carry out a survey visit.

3. data analysis. through the Internet and questionnaire and other data for analysis. The epidemic, the use of artificial intelligence to effectively manage the advantages.

#### 3.1 Research design

Quantitative research: quantitative analysis is carried out by studying and analyzing the virus transmission mode during the epidemic situation and the management mode of the government, and combining with the corresponding literature reference. It can be seen from the management of SARS epidemic situation in the literature that the level of scientific and technological development at that time was obviously insufficient, which made the management more difficult and did not control the disease better. Although the new coronavirus epidemic spread faster and spread more quickly than the SARS epidemic, but the use of artificial intelligence, more effective management, so that the virus is extremely well controlled on drugs and medical supplies to deploy faster, more timely and in the follow-up local food shortage problems combined with information, so that the government and management departments to solve the livelihood problems more calmly.

#### **RESULTS AND FINDINGS**

results and findings discussed in this chapter.

#### 4.1 Survey data

Project	Other	Number of persons	Percentage
Gender	Male	27	54%
	Women	23	46%
Age	<20	6	12%
	21-30	13	26%
	31-40	16	32%
	41-50	8	16%
	>50	7	14%
Educational level	Junior high school	16	32%
	High school	23	46%
	University	10	20%
	Master and above	1	2%

A survey of 54 per cent of men and 46 per cent of women was conducted. Men and women were relatively balanced in the survey, with more men between the ages of 21 and 40, reaching 58 per cent with the highest percentage in secondary and upper secondary education. In the questionnaire survey, the management of the community is basically satisfactory, only the elderly feel very complicated to scan the health code, and the elderly are generally not used to the application of smart phones. But young people are clearly more receptive to such problems than older people. With regard to community health registration, older persons mostly accept the use of artificial records, young people find it more convenient to use smartphones and apps, and 50 people surveyed in response to the country's call, although sometimes reluctant, find such management effective, in terms of family members. Most people under the age of 30 live with adults and children, and most people over the age of 30 live with older people and children. But a small number of older people live alone.

It can be seen that in the prevention and control of the epidemic situation, the community uses artificial intelligence to manage the elderly who do not know how to use smart products such as smartphones, so it is difficult to make statistics on the data during the epidemic period. In the epidemic prevention and control of publicity, or the elderly face-to-face explanation, increased the risk of virus transmission. Therefore, the use of artificial intelligence management, facing the elderly living alone, appear powerless, so can only use artificial and artificial intelligence to manage together to be more effective. The community also teaches older people who live alone, a similar smart app, using mobile-phone apps.

The epidemic situation will further promote the development trend of intelligent manufacturing and unmanned factories, and enterprises will seize the opportunity to take advantage of the digital transformation to realize the industrial upgrading into a feasible plan of "turning danger into opportunity". It is necessary to use artificial intelligence, big data cloud computing to monitor and analyze the epidemic situation as well as the source of the virus, and to study the use of artificial intelligence to improve the management of information in epidemic prevention and control from the government's point of view.

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# STUDY THE COMPONENTS OF STRATEGIC LEADERSHIP IN GOVERNMENT AGENCIES.

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#### **ABSTRACT**

Study research is component of strategic leadership in government agencies has the objective to study the component of strategic leadership in government agencies. This research is the documentary research by using Secondary data from document and related research to study, analysis and data synthesis to get the component of strategic leadership in government agencies. Study result found that the components of strategic leadership of implementing 4 strategies which are planning, organizing, leading and controlling

**Key word:** strategic leadership/ government agencies

#### INTRODUCTION

Under Provision of the Constitution of The Kingdom of Thailand B.E. 2560 (2017) specified "National Strategy" for the strategic in national development in the long run also reform and system development and mechanism for government administration to drive strategy to put into action seriously which rise the quality level of Thailand in all sector and taking Thailand liberation or relieve violence of current problem condition and able to manage threats and risk management in the future, able to change through the nation with the changing of the new landscape of the world causes Thailand to maintain the role of the world stage, able to maintain nation stability and Thais in the nation is well-being and happy together (The Secretariat of the Senate. 2017)

Agencies now face the disruption of economic, political society, and various technologies affecting all organization causing must adapt to survive and develop continuously. All organization must help to develop human knowledge, having good values for living in society; therefore, organization, which achieved and survive, must be the organization able to encourage and enhance abilities of personnel learning continue across all systems in the organization which mean developing to "learning organization". Organization has sustainable competitive advantage in the changing environment, it is essential that organization has to learn better and faster. Learning organization must have suitable structure, less hierarchy to command, there is learning culture in organization and all employees are involved creating and transferring, there is technology to support learning, focusing on quality, there is supporting atmosphere and there is vision together. The heart of learning organization is the organization where has the excellent leader who has the thinking style,

having wide vision and focusing on the strategy (Office of the Basic Education Commission. 2016) it is concerned that organization has a strategic leader

A strategic leader is who focuses on the goal, repeat evaluation and value of organization including determining direction of organization to go and giving operator the power to be creative in their work (Rangsan Prasertsri. 2001). Strategic leader condition is the process to determine the direction to create the choices and implementing them. Leader in this theory believes that company achieved the objective even though it not based on only luck helping, it must be the result to follow the changing situation environment both internal and external organization. Forecasting the future of organization in the long run and strategic development toward desirable future. Environment in organization now change rapidly. If organization leader does not adapt, it is difficult to manage organization to achieve (Wiroj Sararattana. 2014)

Organization leader has to therefore adapt to changing condition also adapt thinking, doing and how to work based on the goal of the organization including making the officer in the organization and external people have a good concern to organization and leader as well. Executive must pay attention to knowledge, ability of personnel of each person more including to find how to use the benefit from that knowledge and expertise, enhance learning, exchange knowledge and sharing knowledge until it causes flow of knowledge in the organization rapidly. Learning organization is the organization that focus on, activate, urge and attract the people in organization had the motivation learning, self-improvement all the time cause organization has the human capital and can be effective to apply the expertise available in the organization together with empowering people who related the knowledge management and apply technology to expand self-potential. Working team and organization can operate successfully and achieve goal of organization

#### **Objective**

To study the components of strategic leadership in government agencies

## Methodology

This research is the documentary research by using secondary data from document and related research to study, analyze, and data synthesis to get the components of strategical leadership in government agencies

#### **Literature Review**

Researcher reviewed related literature to collect the components of strategic leadership from specialists and related researchers detail as follow

Table 1: Show the source of strategic leadership components

Chariolists / nagaprahans	strategic leadership			
Specialists / researchers	Planning	Organizing	Leading	Controlling
Wiroj Sararattana (2009)	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>
Siriwan Sarerat and Team (2005)	<b>✓</b>	✓	<b>√</b>	✓
Sutep pongsriwat (2007)	<b>✓</b>	✓		
Kanyarat Meungsong (2007)	<b>✓</b>	✓	<b>√</b>	<b>√</b>
Chawangsak Peuksatawes (2010)	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
Wiroj Sararattana (2010)	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>

Crecialists / researchers	strategic leadership			
Specialists / researchers	Planning	Organizing	Leading	Controlling
Pichapob Panpea (2011)	✓	<b>&gt;</b>	<b>✓</b>	<b>✓</b>
Tawanluck Pungnil (2012)	✓			
Wiraporn Deeboonmee (2013)	✓	<b>✓</b>	<b>√</b>	<b>√</b>
Kankanat Suwanratbhum (2013)	✓	<b>✓</b>	<b>√</b>	<b>√</b>
Pitoon Silarat (2014)	✓	<b>✓</b>	<b>√</b>	<b>√</b>
Daruwan Tawilkarn (2017)	✓	<b>✓</b>	<b>√</b>	<b>√</b>
Kerapong Phabhumi (2017)	✓	<b>✓</b>	<b>√</b>	<b>√</b>
Nahavandi, A (2006),	✓	<b>✓</b>	<b>√</b>	
Lussier, Rober & Achua Christopher (2010)	✓	<b>✓</b>	<b>√</b>	<b>✓</b>
John Adair (2010)		<b>&gt;</b>	<b>√</b>	<b>✓</b>
Matthew Lynch (2012)	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>

### Study result

The components of strategic leadership of implement 4 strategies such as planning, organizing, lending and controlling show on illustration 1

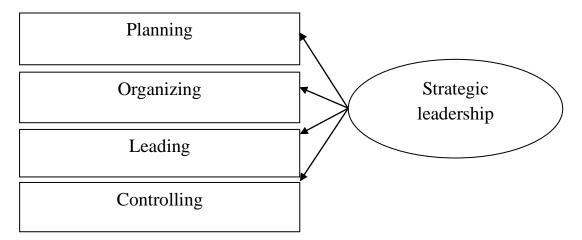


Illustration 1 Show the component of strategic leadership of implement strategy

#### **Study result conclusion**

Components of strategy leadership to implement 4 strategies such as planning, organizing, leading and controlling aligned with research of Chawangsak Peuksatawes (2010) studied about the indicator development of strategy leadership of Administrator of Educational Service Area Office, Ministry of Education. Research of Pitoon Sinlarat (2014) studied strategic leadership development model for Secondary school administrator. Research of Wiroj Sararattana (2013) studied the new educational paradigm in case of attitude on education in 21st century. Siriwan Sarerate and team

(2005), Sutep pongsriwat (2007) sparked idea of "distribution of leadership" and Nanayakkara, G., & Iselin, E. R. (2012)

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# THREE-CHAIN ISOMORPHISM" OF GRAIN INDUSTRY CHAIN, VALUE CHAIN AND SUPPLY CHAIN.

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#### **ABSTRACT**

The grain industry, an important industry in China, involves the grain industry chain, the value chain, and the supply chain. In 2019, China, for the first time, proposed the concept of "three-chain isomorphism" which indicates the core of the transformation of the agricultural product processing industry and the way to enhance the core competitiveness of the grain industry. And the upgrading of the agricultural product processing industry is the key to the development of modern agriculture and the improvement of balance between cities and rural areas. China will take the agricultural industrialization cluster as a carrier, with the front end extending to the base and the back end expanding to the intensive processing. Furthermore, China will continuously extend the industry chain, accelerate the research and development of high-end agricultural products as well as vigorously develop grain logistics parks and large-scale trading markets so as to build a complete supply chain in ways that can continuously improve the quality, efficiency and competitiveness of Chinese agriculture.

Keywords: Grain industry chain , Value chain , Supply chain , "three-chain isomorphism"

#### BACKGROUND AND SIGNIFICANCE OF THE RESEARCH

#### 1. 1 Background

In 2019, Chinese President Xi Jinping proposed to Henan Province that "we must make full use of grain production, extending the grain industry chain, upgrading the value chain and building the supply chain so as to constantly improve the quality, efficiency and competitiveness of agriculture. Centering on "three-chain isomorphism", all regions in Henan province must accelerate the extension of the food industry chain towards upstream and downstream, and make the competitive industries more high-end oriented." Henan province being a major grain producer, processor and consumer, its total grain output reached 66.489 billion kilograms in 2018, accounting for 9.67% of the country's total; all types of new agricultural business entities in the province have grown to 280,000, with more than 530,000 professional farmers. The agricultural product processing industry has become an important sector to support the provincial economy. It is an urgent need for the construction of core areas of grain production and the creation of a better, newer, greener and smoother agricultural industry to improve the value chain, optimize the supply chain, and therefore enhance the competitiveness of the grain industry from a strategic perspective through exploring industrial chain expansion and industrial integration It is practically applicable and greatly significant at this stage to promote the extension of the food industry chain toward upstream and downstream and make the advantageous industries more high-end oriented.

#### 1. 2 Significance

"Three-chain isomorphism" is the core of the transformation of the agricultural product processing industry and the need to transform the development mode of China's grain industry. An important task of building China's Central Plains Economic Zone is to create new advantages in grain production. The grain industry chain is grain-dominated, which is a system that organizes various links including production, storage and transportation, processing, circulation and consumption and various enterprises on each node together. However, because the grain industry chain is short, every node is basically disconnected from one another. Therefore, integrating the grain industry chain, enhancing the value chain, and building the supply chain are of great significance for accelerating the transformation of the grain industry's economic development mode.

"Three-chain isomorphism" is the way to enhance the core competitiveness of the grain industry. In the current development of the industry chain, the links among production, storage, processing, transportation, circulation, consumption and so on are not close enough, and the industrial chain is short, resulting in slow speed and inefficiency of the entire chain operation, and therefore hindering the improvement of core competitiveness of the grain industry in Henan province. Therefore, "three-chain isomorphism" has integrated and optimized the industrial chain, which is an important way to ensure the transformation of the development mode of the grain industry and contribute to the rapid improvement of the core competitiveness of the grain industry.

The upgrading of the agricultural product processing industry is the key to the development of modern agriculture and the improvement of balance between cities and rural areas. In the construction of the Central Plains Economic Zone in China, we must promote balanced, scientific development of "three modernizations", that is, new industrialization, new urbanization and agricultural modernization should reinforce each other and coordinate with each other, so as to take shape a sound driving relationship at no cost in terms of agriculture and grain, ecology and environment. In-depth study on how to promote the "three-chain isomorphism" plays an important role in the construction of the three main functional patterns of the Central Plains urban agglomeration, core areas of grain production and ecological function areas, and in driving the coordinated advancement of industrialization, urbanization and agricultural modernization through new urbanization so as to form a new pattern of urban-rural integration in economic and social development.

# RELATED THEORIES AND RESEARCH

#### 2. 1 The Industry Chain

The ideas and concepts of the industry chain were first produced in western countries, and its origins can be traced back to the period of classical economics in the mid-to-late 17th century. However, since the later research focused more on the value chain and supply chain of a specific industry, there was no complete and independent theoretical system, which therefore needed interpretation and support based on relevant theories of economics and management.

Since most scholars in the West believe that there are only three types of interindustry associations: forward association, backward association, and circular association, they do not attach importance to the research of the industry chain. After the 21st century, China has conducted in-depth exploration of the industry chain, including theoretical research, empirical research and policy research, covering various fields and regions, and made a large number of achievements. China has promoted the theoretical innovation of industry chain research, and has collated and summarized the economic and management theories related to

the industry chain. Therefore, it is the Chinese scholars who proposed and focused on the definition and concept of the industry chain.

The first in China to put forward the concept of the industry chain was an article titled "Realistic Model of Planned Commodity Economy-Regional Market" by Yao Qiyuan and Song Wusheng in "Tian Fu New Idea" in 1985, but there is no clear definition of the industry chain. The second is that in Fu Guohua's research on the development of Hainan's tropical agriculture in 1993, the industry chain of tropical agricultural products was first proposed. And later in the article "Operating the Agricultural Product Industry Chain and Improving the Benefits of the Agricultural System" ("China Agricultural Reclamation Economy" No. 11), the industry chain was defined in more detail. It is considered that agricultural products have become a part of the industry chain after production, processing, circulation and other links, which has gone beyond agriculture and realized the joint development among industry, agriculture and commerce, and among production, supply and marketing. From a dynamic perspective and according to the theoretical base of the industry chain, it gives a relatively systematic interpretation and introduction about the operation and development of the industry chain.

In actual applications, since many scholars have defined the industry chain from different aspects and dimensions, there is no complete theory about the industry chain, nor a unified definition. The industry chain is a relatively macroscopic concept. According to Fu Guohua, the industry chain is a cross-industry net chain structure that integrates the first, second, and third industry, which leads to the interconnection among industry, agriculture and commerce, and among production, supply and marketing, and the creation of a chain structure and the increase of value. However, in an actual industry chain, it contains several industries. The industry chain refers to the tight partnership chain because of the connection among various industries or businesses based on a certain technical and economic relationship.

#### 2. 2 The Value Chain

The concept of the value chain was first proposed in the book "Competitive Advantage" by Harvard Business School professor Michael Porter in 1985. Porter believes that "every enterprise is an aggregation which carries out various activities in the process of design, production, sale, delivery and support of its products. All these activities can be represented by a value chain."

Value chain is a dynamic process of creating value through some different but interrelated production and management activities. The key of the value chain theory is the specific activities of enterprises that help increase the value in the value chain. The value chain is formed by a series of activities, which can be divided into basic activities and support activities. Basic activities include internal and external logistics, production and processing, marketing, pre-sale and after-sale related services, etc. while support activities include procurement of raw materials, technological development and innovation, human resource management and enterprise infrastructure construction, etc. The value chain is not only targeted at the value relationship within an individual enterprise, but also pays more attention to the value chain of the entire industry. The comprehensive competitiveness of the value chain determines the competitiveness of the enterprise and is also the key to the enterprise's competitive advantages.

# 2.3 The Supply Chain

The supply chain is long-standing, and the development of related theories is relatively early. It first came from the "economic chain" proposed by Peter Drucker in the 1980s, and then developed into the "value chain" by Michael Peter. Finally, based on the integration of the value chain and value stream ideas, Reiter put forward the definition of the supply chain for the first time, that is, the supply chain is an entity network through which

products and services are delivered to a specific customer market. However, as business models have been constantly changing in different periods, the concept of the supply chain is constantly being enriched and developed. Many experts and scholars have given different definitions based on different backgrounds. But throughout the development history of the supply chain, we can roughly divide the development of the supply chain concept into three stages: internally integrated supply chain, externally integrated linear supply chain and externally integrated mesh supply chain.

The concept of supply chain is developed from the concept of expanding production, which protracts and extends the production activities of enterprises. Toyota's lean collaboration method controls and coordinates the supplier's activities as an integral part of production activities. Harrison defines the supply chain as: "The supply chain is a functional network chain that procures raw materials, converts them into intermediate products and finished products, and then sells them to users." Stevens from the United States believes: "Controlling the flow from suppliers to users through value-added processes and distribution channels is the supply chain, which starts at the supply and ends at the consumption." Therefore, the supply chain is a kind of interface between customers and suppliers through such activities as planning, obtainment, storage, distribution and services so that companies can meet the needs of internal and external customers.

#### ANALSIS AND RESEARCH ON "THREE-CHAIN ISOMORPHISM"

# 3.1 Connotation of Grain Industry Chain, Grain Value Chain and Grain Supply Chain

The grain industry chain is a vertical chain composed of various links from grain cultivation, production, acquisition, processing to sales. It consists of grain production, processing, circulation, consumption and other links, of which production and processing are the upstream links while circulation and consumption are the downstream links. The upstream links provide grain products for the downstream links while the downstream links provide feedback such as grain demand and consumption for the upstream links. Each related sub-link involves the correlation and integration of logistics, capital flow, information flow, etc.

The grain value chain refers to the chain formed by various activities that add value to grain, such as the cultivation, production, acquisition, processing, and distribution of grain. According to the traditional grain industry, the grain value chain can be divided into grain production capacity building, grain production, acquisition, storage, transportation, processing, and sales. The production capacity building is the starting point, sale is the end point, and other links are the intermediate links connecting production and sales.

The grain supply chain refers to the net chain structure formed by all the organizations both upstream and downstream from who procure grain production materials to who produce and process the grain, and finally to who provide grain and services to the consumers in the process of grain production and circulation. The grain supply chain is an effective supply chain. Effective supply chain is to transform raw materials into components, semi-finished products, finished products at the lowest cost, and to help transport in the supply chain. Therefore, the economic goals of the grain supply chain should be the focus of attention. The production in the grain processing enterprises is continuous while the acquisition is seasonal; the grain production is regional while the consumption is global; the grain production is relatively unstable while the consumption is relatively stable, and so on. This requires that grain products must be circulated in a timely manner within the shelf life to ensure the realization of their social and economic values after the output of grain products. The characteristics of the grain industry determine the complexity, dynamics, speed, and

intersection of the grain supply chain. Only if a large number of companies form a closer strategic partnership can they achieve seamless connectivity.

The analysis and research on the grain industry chain, grain value chain and grain supply chain can help conclude the fact that the "three-chain isomorphism" is to achieve the integration of the grain industry with the first, second, and third industries through the integration of the grain industry chain, leading to the interconnection among industry, agriculture and commerce and among production, supply and marketing. Therefore, the grain industry is able to generate more value-added activities to enhance the value chain, and ultimately create a supply chain featured with diversified networks to deliver grain products and related services to the market.

# 3.2 Analysis of the Problems and Countermeasures Faced by "Three-Chain Isomorphism" in China

Currently, China's grain industry is facing challenges brought about from the transformation from high input and high consumption to high-quality development. Therefore, "three-chain isomorphism" also inevitably will generate new problems and challenges. The grain value chain refers to the chain formed by various activities that add value to grain, such as the cultivation, production, acquisition, processing, and distribution of grain. According to the traditional grain industry, the grain value chain can be divided into grain production capacity building, grain production, acquisition, storage, transportation, processing, and sales. The production capacity building is the starting point, sale is the end point, and other links are the intermediate links connecting production and sales.

# 3.2.1 Problems Faced by "Three-Chain Isomorphism"

The first is that natural resources are relatively scarce. Grain production is inseparable from natural resources such as water and land. Clean water resources and rich land resources are the prerequisites for the efficient development of grain industry. At present, the grain production mode is still mainly extensive, and the intensiveness is poor. To a certain extent, increasing grain output still depends on the use of chemicals such as fertilizers and pesticides. Large use of chemicals will lead to water pollution and soil pollution and hinder the efficient development of the grain industry. Taking Henan, a major grain industry province, for example, the per capita cultivated land and per capita water resources of Henan Province are 4/5 and 1/5 of the country respectively. Over exploitation of groundwater and seasonal drought have become important constraints for agricultural development in the province. The effective irrigated area only accounts for 64% of the total arable land area, and the low- and medium-yield field area accounts for about 60% of the province's total arable land area. The shortage of water resources and arable land as well as the deterioration of quality has highlighted the problems. Agricultural development has almost approached the limitation of resource and environment carrying capacity.

The second is that the scientific and technological support capacity is insufficient. The fundamental way for the development of the grain industry lies in scientific and technological progress and innovation. In terms of processing industry, taking Henan for example, the investment intensity of R&D funds of large and medium-sized enterprises is generally not large, with the R&D investment on average only accounting for 0.9% of sales revenue. Difficulties are likely to generate in operation when the market is unstable due to poor capacity in scientific and technological innovation, insufficient processing of sophisticated products and low processing conversion rate. In terms of planting industry, the original scientific and technological innovation capabilities are insufficient and the core technology is in shortage. Taking high-quality, special usage wheat variety for example, among the strong gluten varieties with a large planting area and high enterprise recognition in the province, some problems still exist in resistance and high yield. For instance, Zhengmai 366 is

susceptible to sheath blight and poor in resistance to "cold spell in later spring"; and Xinmai 26 has poor lodging resistance and is prone to lodging.

The third is that talent resources are scarce. The efficient development of the grain industry requires new knowledge, new concepts, new technologies, and new equipment. There is a general lack of talents in China who can take the lead in the efficient development of the agricultural industry. At present, the overall qualifications and professional and technical posts of rural practical talents, professional technical talents and scientific and technological talents are greatly in shortage, and they are not productive as the youth and lack of skills.

The fourth is that the labor forces are in shortage. Because farmers' income from grain production is much lower than that from other industries, and with the acceleration of urbanization and the large increase in opportunities for migrant workers, the "new generation of migrant workers" are reluctant to return to their hometowns to farm, or they even do not know how to farm, resulting in some "hollow villages" in some places. Therefore, the shortage of labor forces is salient during the "three summers" and "three autumns" when the labor intensity was relatively high, which hinders the development of agricultural industry.

# 3.2.2 Analysis of Countermeasures to Promote "Three-Chain Isomorphism".

China needs to continuously improve the quality, efficiency and competitiveness of the grain industry and promote the development of grain industry in an efficient and highquality manner.

Increase productivity, improve efficiency and enhance competitiveness. The first is to adhere to the "lifeline" of agricultural production-cultivated land area. It is imperative to strictly implement the special protection system for basic farmland in rural areas and the system of balance of farmland occupation and compensation, to ensure that the amount of cultivated land is not lower than the national requirements and that the production capacity of important grain products will not reduce further. The second is to implement high-standard farmland construction. China must take coordinated measures to integrate farmland water conservancy construction, land remediation, comprehensive agricultural development, modern agricultural production development, scientific and technological promotion in agriculture and other agriculture-related funds. Besides, it is important to tightly control the key links including cultivated land, water conservancy, technology, etc. And China needs to continuously improve the farmland infrastructure, carry out high-standard farmland construction in an overall way and create core areas for grain production. The third is to take actions to protect and improve the quality of cultivated land. It is important to optimize the layout of cultivated land and permanent basic farmland, carry out comprehensive treatment of degraded cultivated land, prevent and control the restoration of polluted cultivated land, promote the transformation of low- and medium-yield fields, and explore the promotion of the recuperation and the pivot projects for rotation and fallowing of the cultivated land. China must resolutely curb land violations, improve supervision mechanisms for land law enforcement, and seriously investigate and deal with various types of illegal occupation of cultivated land, especially permanent basic farmland.

Increase the support of science and technology, innovate efficient scientific and technological planting. First, establish a sound scientific and technological research and development mechanism. We must encourage enterprises to sign cooperation agreements with colleges and universities and scientific research institutions so as to form industrial technology innovation alliances, train a group of high-quality young talents in agricultural science and technology, and establish cooperation mechanisms and technological innovation systems in industry, education, research and utilization. Second, increase investment in scientific and technological research and development. We must cultivate a group of high-growth agricultural science and technology innovation enterprises such as the National Bio-

breeding Industry Innovation Center, conquer a series of key industrial core technologies, and accelerate the promotion and application of agricultural integrated technology and the transformation of results. Third, strengthen the integration of agricultural machinery and agronomy, and strengthen the training of farmers' business knowledge and skills. Furthermore, we must support new service subjects such as agricultural machinery cooperatives and plant protection, and carry out professional services such as farming and planting for others, unified prevention and control, collecting and storing for others, and unified distribution and management. It is imperative to improve the level of production organization and intensification, increase land output rate, labor productivity and resource utilization. We also must encourage technical personnel in the grain industry to work or take part-time jobs in new-type business entities so as to open up the highway for scientific and technological transmission in the grain industry.

Build the grain industry brands. First, create a batch of grain industry brands. It is necessary to improve the system and mechanism of brand building management, adhere to the combination of quality and efficiency, highlight the high-quality, greening and branding of the grain industry, grasp the key links of brand quality and safety of the grain industry, increase the advantage of special grain products, and build the grain industry's brand catalog. Second, strengthen the supervision of the grain industry's brand. We must explore the establishment of an environmental safety monitoring and evaluation system for the origin of grain products, and take the lead in incorporating green, organic, and branded grain products into agricultural product quality and safety management. It is imperative to strengthen law enforcement supervision, resolutely implement the requirements of strict standards, strict supervision, severe punishment, and serious accountability, and strictly prevent and control grain security risks. Third, increase agricultural brand publicity. We can build an overall brand image of grain products with high visibility and influence both at home and abroad, organize online production and marketing matching and brand promotion activities, expand new marketing methods such as online live broadcast, establish online and offline brand product marketing promotion systems, and comprehensively improve the overall reputation.

Develop the grain industry in a healthy and green manner. First, promote clean production in the grain industry. We must establish a policy-oriented and technical system for the protection and efficient use of resources in the grain industry, deeply implement the zerogrowth measures of chemical fertilizers and pesticides, carry out soil testing and formula fertilization, fully popularize the technical mode of chemical fertilizer and pesticide reduction and increased efficiency. We also need to promote pesticides with high efficiency, low toxicity and low residue, and grasp the pilot of replacing chemical fertilizers with organic fertilizers, build a demonstration zone for the integration of crop disease and pest control and of green prevention and control and a green demonstration base for the control and treatment of fruit, vegetable, tea pests. Second, promote the resource utilization of waste in the grain industry. We must promote the resource utilization of livestock and poultry manure, straws, agricultural film and other wastes; promote the operation mode of returning land from the mechanical crushing and deep ploughing of wheat, corn and straw as well as the utilization method of straw silage. Third, promote the development of recycling grain industry. We must exert great efforts in the construction of the national demonstration zone for sustainable development of the grain industry, and implement a demonstration project of recycling agriculture for combining farming and animal husbandry, and promote the combination of farming, animal husbandry, and construction of farms and farmlands.

#### **CONCLUSION AND DISCUSSIONS**

According to the related concepts of grain industry chain, this paper defines the connotation of grain value chain and grain supply chain, and summarizes the practical significance of "Three-chain isomorphism"through the theoretical research of grain industry chain, grain value chain and grain supply chain. Taking China as the research object, collecting data, understanding the current situation and existing problems of "three chain isomorphism" in China, analyzing the problems of "Three-chain isomorphism", and finally putting forward corresponding countermeasures.

"Three-chain isomorphism" is suitable for each country, but each country and region has different situations. Taking China as an example, this paper analyzes the "Three-chain isomorphism" from a macro perspective, and puts forward problems and countermeasures. However, China is rich in land and resources, and there are great differences in the grain production, climate, science and technology and other relevant factors in the East, West, South, North and middle of China. It is necessary to further collect information and data, further deepen research, and more specific Based on the advantages, disadvantages, opportunities and threats of "Three-chain isomorphism", the region makes a comprehensive analysis to explore more targeted development goals and models.

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# CONCEPTUAL FRAMEWORK AND DEVELOPMENT OF ESG (ENVIRONMENTAL, SOCIAL AND GOVERNANCE) IN THAILAND.

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### **ABSTRACT**

The main aim of this research is to study the conceptual framework and the development of ESG in Thailand for establishing innovative strategies for running a business. It is divided into two areas. There are (1) an overview and the importance of including ESG in doing business and (2) the development of ESG in Thailand. The qualitative approach is used as a methodology by analyzing secondary sources and documents. It is found that ESG is important to factor that impacts sustainable and ethical investment in the capital market worldwide in which investors realize and consider ESG for investing. As for Thailand, the authority is moving from Corporate Governance to ESG Development in the future. The Securities and Exchange Commission (SEC) Thailand's has carried out a project of Investment Governance Code for Institutional Investors (I Code) to create a good governance in the local capital market and will provide the for guidelines for investors under the framework in the future.

Keywords: Environmental, Social, Governance, Sustainable Investment

#### INTRODUCTION

Sustainability is one of the world's most challenging issues, affecting not only financial but also non-financial sectors, both those individual and organizations. In the financial sectors, the definition describes several such words as Socially Responsible Investing (SRI), Corporate Social Responsibility (CSR), Sustainable Development (SD) and Environmental, Social and Governance (ESG). The ESG factor is to focus on doing business responsibly, considering the three main aspects of the environmental, social and corporate governance, which is an issue that will affect the operating results and sustained growth of the company. An investment including the amount of ESG factors has been growing rapidly. Idar Kreutzer, who is CEO of Finance Norway, mentioned in the WBCSD Business Role Focus Area that "Sustainability is a factor in driving the investment decision of the investors" [1]. The Global Sustainable Investment Alliance (GSIA) has indicated that globally, sustainable investing assets in the five major markets stood at \$30.7 trillion at the start of 2018, a 34 percent increase in two years. Investor recognizes more ESG and has improved the demand for those involved with the disclosure of environmental impacts society and

corporate governance to the public and is widespread in society. In this, many countries around the world have issued regulations to the company to be more responsible in business operations [2]. Thailand are also interested in signing the sustainable investment. Many relevant organizations are trying to make investors aware of the importance of business, taking ESG factors into account. The research on, assessing ESG [3-4], the effects of ESG disclosure on the market value of companies [5-9] has largely been interested. However, many existing studies focus on only single factor of ESG. Restricted ESG study on all three factors, environmental, social and governance in a study such as environmental factor activities will give an impact to the society [10]. Thus, the company should have a governance to be socially responsible. The relation of these three factors could strengthen the management practices to enhance the performance of company.

As the significance above, demonstrate the need to promote and develop the knowledge and understanding of ESG for investors. This report has studied the terms of ESG in each dimension. The results can be applied as a guideline for the development of innovative strategies to manage the business in Thailand.

#### **OBJECTIVE**

- 1. To provide an overview focusing on the importance of ESG in the business
- 2. To discuss the development of ESG in Thailand

#### **METHODOLOGY**

The methodology of this research is a qualitative approach by using the secondary source to analyze and synthesize the concept of ESG

#### RESULTS

In this study, the result can be divided into two topics: (1) the concept of ESG issues and (2) ESG situation in Thailand as described below.

#### The Environmental Social and Governance (ESG)

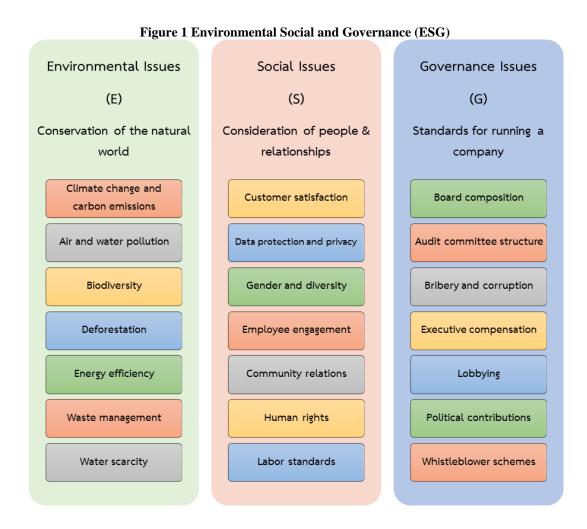
ESG factors were first introduced a thing in investment in 2005, the New York Stock Exchange all introduced their own sustainability guidelines, such as the Principles for Responsible Investment (PRI). ESG stands for Environmental, Social and Governance in the capital market to explain the environmental, social and corporate governance issues associated with the company and its operations, which affect the investment decisions. The ESG is widely known in the field of financial investments from core operating investments which are Principles for Responsible Investment (PRI), which link to the goals of Sustainable Development Goals (SDGs) of the United Nation (UN). It consists of six principles with the primary goal of helping investors integrate ESG factors in making investment decisions and shareholder participation. Which will result in higher long-term rewards for beneficiaries. Currently, with a combined investment of more than \$30.7 trillion in 2018 and growing continuously. Six Principles for Responsible Investment consists of (1) Bringing ESG issues to analysis and investment decisions, (2) Seriously exercising rights as shareholders and taking ESG issues as part of policy formulation and rights exercise practices as shareholders, (3) Supporting the companies we invest in to disclose ESG information, (4) Promoting ESG issues for acceptance and practice in the investment industry, (5) Cooperation in the implementation of responsible investment practices and (6) Reporting of information, progress of operations in accordance with responsible investment practices.

In terms of the environment (E) are focused on using resources more efficiently. In addition, the restoration of the natural environment is influenced by the business. Environmental factors contribute to two effects. First, physical effect from direct impacts of environmental changes such as nature disasters affect tourism or drought to agricultural productivity. Second, transition of official policy to tackle environmental and consumer behavior changes. The company has not been attentive to prevent the environmental impact of the business opportunity to hurt and risk doing business.

Social (S) responsibility is considered fair and equal to human resources management and the well-being of the society inside and outside. Social factors impact both inside and outside. The internal factor is to treat workers fairly, employee benefits and respect for human rights collide. The employees' quality of life inappropriate will not be able to operate a business at full capacity. For external factors, including manufacturing and services have a responsibility to the community, society, business continuity, customers and shareholders such as purchasing raw material with fair prices.

Governance (G) is considered a good corporate governance, good risk management and anti-corruption. The governance factor is the function of the director. The internal supervision management is the foundation for creating sustainable corporate values. For example, an entity's management uses internal information or fraudulent fraud, it will also directly affect the management and performance of the business.

In 2018, Chartered Financial Analyst (CFA) Institute Guidance and case studies for ESG Integration has been an example of ESG issue [11], consisting of various topics as shown in the figure 1.



In order to understand in another aspect, there is a comparison between CSR and ESG by Thaipat Institute. ESG is the term that the investors use when required to select the business to invest with good environment, social responsibility and corporate governance operation in which the investment can be invested. ESG is a media term between investors and the company. The relationship between CSR and ESG explains that CSR is a matter of responsibility, regardless of the expectation of stakeholders. While ESG is a matter of disclosure of information from responsible operations to consider the expectations of the investors, especially the institutional investor. As a result, the organization should consider developing and focusing on CSR in order to be able to bring those performance to the ESG information, disclosure to the investors [12].

The United Nations (UN) announced the Sustainable Development Goals (SDGs) 17 deals. It is a commitment to provide 193 national certifications for members, including Thailand. The goal of sustainable development will be used to determine the development direction of Thailand from now until the 2030, covering a period of fifteen years. The 17 targets of sustainable development Goals are shown in Figure 2.

Figure 2
Sustainable Development Goals (SDGs) [13]





#### **ESG** situation in Thailand

Thailand is moving from Corporate Governance to ESG Development [14] by supporting strategy of the Securities and Exchange Commission (SEC) Thailand's. The strategy is divided into three phases: (1) Ensuring investor protection, (2) Building market confidence and (3) Fostering sustainable value creation, as shown in Table 1.

Table 1
Supporting strategy to moving from Corporate Governance to ESG Development of Thailand.

Phases			Strategies				
I.	Public Offe	ering	Monitoring	En	forcement		
Ensuring investor protection	<ul><li> offering approval</li><li> pre-vetting prospectus</li></ul>		financial reporting Thai accounting standards		<ul><li>fraud</li><li>false disclosure</li></ul>		
	<ul> <li>supporting pr financial advi auditors, appr</li> </ul>	isor,	Form 56-1 / annua Material transaction related party trans	ons e.g. • market sactions	trading manipulation ination of false ation		
II. Building market confidence	<ul> <li>Regulatory-Di</li> <li>Board/Manag</li> <li>Auditor Requ</li> <li>Qualification</li> <li>Monitoring</li> <li>Disclosure</li> <li>Enforcement</li> </ul>	gement/  nired	Market Force CGR ASEAN CG Score CG Watch AGM checklist	<ul> <li>Launch</li> <li>Trainin</li> <li>Develo website</li> <li>Trainin</li> </ul>	P-Discipline  In CG Code  In the Listed Co.  In the cell of the Board  Guidance		
III. Fostering sustainabl e value creation	• Remedy & O  SDGs  The government assigns the SEC  to be responsible for a number of sustainability reports	Needs of Listed Co.  Reducing the burden of multiple reports and enhancing competitivene ss	Needs of investors  CG Watch demands ESG disclosure integrated into business process  ASEAN Sustainable Capital Market Roadmap	International assessments and recommendations  TCFD Recommendation is (Climate Change)  IOSCO (GEMCGEMC) Survey (Sustainable Finance)  UNDP (Human Rights)	Policies/Initiatives/ International developments Elevating Thairegulations to be on par with foreign counterparts		

To encourage companies to focus on environmental, social and corporate governance of the company, the Securities and Exchange Commission (SEC) Thailand's proposed investment governance Code (I Code), in 2017 and providing information to follow I Code in 2018, to be the standard of institutional investors to invest responsibly to customers with regard to ESG investment.

In terms of investment, many institutions have been indexed ESG in Thailand. The Stock Exchange of Thailand (SET) has been prepared SET THIS (SET Thailand Sustainability Investment) index. It is intended to be used as an index that reflects the price movement of the securities group of the company with a sustainable business operation. Investors can take investment decisions in conjunction with the consolidated financial information of the company. SET has been prepared in 2015 and began using the index as a reference to investment in 2018. Thaipat Institute made Thaipat ESG Index or Index ESG Thailand Thaipat used as an index to compare the return on investment (Benchmark Index) and can be used as a benchmark for investment (Investable Index) in the financial products. ESG index or Thaipat ESG index are selected from the group ESG 100 securities, which are securities with a dominant performance on environmental, social and good governance. (Environmental, Social and Governance) number of securities 100 rated securities listed on the SET and mai.

There are many companies that operate in parallel with ESG. For example, the hot issue of Thailand is dust PM2.5, which tries to solve this problem, but it doesn't work. All sectors are working together to solve these problems even the private company. These companies are committed to solving problems for people. PTT Public Company Limited performs clean water injection in the area around the office spray the water from the building to reduce dust. At the same time, the CP ALL Company Limited used to distribute the dust masks to the public or even other companies not mentioned above.

# **CONCLUSION AND FUTURE WORK**

In summary, the issue of ESG is close to the daily life and has an impact on the profits and survival of the business, which ultimately affect the returns investors get by investing, especially in the long term. Therefore, it is not a surprise that the global investors have given the importance of ESG to make the decision to invest. In Thailand, all the areas involved in the capital market are constantly giving priority to this issue. Finally, it is a conclusion that every organization must have a working agency that controls the business in a transparent and sustainable manner. It must create a good image through ESG, so that investors have the confidence to invest in a long-term sustainable return.

#### **ACKNOWLEDGEMENTS**

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# A LITERATURE REVIEW ON WORKPLACE WELLBEING FCTORS: THAI ICT EMPLOYEES IN FOCUS.

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#### **ABSTRACT**

This literature review analyzes and synthesizes literatures on factors of workplace wellbeing and suggests research directions on workplace wellbeing specific to Thai information and communications technology (ICT) employees. It has been acknowledged that workplace wellbeing is a growing interdisciplinary concept. Its original focuses on labor protection and occupational safety have now expanded to human resource development and occupational safety and health management. Overall, this literature review arranges factors relating to workplace wellbeing into eight respective groups: (1) career prospect, (2) organizational culture, (3) subjective psychology, (4) work-life balance, (5) work demands, (6) health and safety, (7) negative work consequences, and (8) physical environment. It is concluded that subjective psychology, organizational culture and negative work consequences are the most common perspectives used to explain factors relating to workplace wellbeing. On the contrary, perspectives like work demands and physical environment receive little attention from current researches despite its vast potential to capture workplace wellbeing. A new stream of research specific to the ICT industry shows that (1) stress, (2) physical health issues, and (3) interior designs are warranted. These factors belong to the categories of negative work consequences, health and safety, and physical environment respectively. The literature review proposes future research on Thai ICT workplace wellbeing to take these factors into account.

Keywords: Workplace wellbeing, ICT employees, Literature review

# **INTRODUCTION**

The Information and Communications technology (ICT) industry in Thailand is a significant economic sector [1]. According to a report presented to the European Union (EU) [2], Thailand's ICT industry is growing at a substantial rate. An intrinsic nature of the ICT industry is that it is a knowledge intensive industry [3], i.e., critical knowledge and skills to advance the industry are embedded within individual employees. Many research papers have shown that stress, burn-out and employee turnover are common problems within the industry [4, 5]. In recent years, more and more ICT firms are acknowledging that stress, burn-out and employee turnover are counterproductive, therefore they start to promote workplace wellbeing programs as a way to combat the productivity problem [6]. For example, Google issues a *Google goes dark* policy, which requires all employees to turn off their communication devices before going home to enable an uninterrupted family time after work hours [7].

Research on workplace wellbeing among ICT workers clearly states that wellbeing is a powerful incentive to hire and/or retain ICT workers [8-10]. Employees with a sense of wellbeing tend to be more satisfied with their work and feel a sense of interdependence with their colleagues [10]. It has been shown that a firm-level initiative on wellbeing can improve employee's wellbeing [9].

A research gap has been identified in the literatures regarding workplace wellbeing. The gap is that in a context of workplace wellbeing research from Thailand, current researches are being conducted in college students [11], teachers [12], factory workers [13], and rural migrants [14]. There is yet to be a research on Thai ICT employees.

From an industry perspective, some leading Thai ICT firms have already been aware of a significant impact of workplace wellbeing. For example, Samart Telcoms Plc., a leading ICT firm in Thailand, has started proposing an initiative on remote working, which allows their ICT engineers to work remotely from any location on the company's computer network. The initiative is believed to create a better work-life balance, and consequently workplace wellbeing for engineers, who often have to work during late hours. Many initiatives in this nature are being promoted from a firm level, however their effectiveness on promoting workplace wellbeing among Thai ICT employees are unknown. There is little knowledge available on what factors might contribute to workplace wellbeing among these employees. Hence, this literature review is interested in finding out factors that would contribute to ICT employees' workplace wellbeing.

This literature review is arranged into 4 sections. After the introduction presented here, section 2 continues with research objectives. Section 3 presents a literature review on what a workplace wellbeing is, what factors contribute to workplace wellbeing, and an application of workplace wellbeing factors toward Thai ICT employees. Section 4, the last section, closes with a short summary and contributions of this literature review.

#### **OBJECTIVES**

- 1. To review literatures relating to factors of workplace wellbeing
- 2. To suggest research directions for workplace wellbeing factors specific to Thai ICT employees.

## LITERATURE REVIEW

This literature review looks into a general concept of what a workplace wellbeing is, then it reviews and analyzes existing researches on factors contributed to workplace wellbeing. The section closes with a specific review on future research direction on workplace wellbeing for Thai ICT employees.

# Workplace wellbeing

Workplace wellbeing is a summative concept relating to quality of life ones experience while working at a particular organization [15]. There are a wide range of definitions for workplace wellbeing available in the literatures. They share a common characteristic that a workplace wellbeing refers to an absence of undesirable conditions like illness, and a cohort of desirable qualities like job quality and happiness in life [15]. This literature review subscribes to a definition that workplace wellbeing is "the subjective state of being healthy, happy, contented, comfortable, and satisfied with one's life" [16]. Apart from the term workplace wellbeing, similar concepts found in the literatures capture comparable ideas to workplace wellbeing are: happiness [17], subjective wellbeing [17], life satisfaction and job satisfaction [18].

Workplace wellbeing is believed to be a major determinant of productivity at individual, organizational and societal levels [6, 15, 19], as well as physical health and longevity [20]. Therefore, the subject has been receiving a fair amount of attention from the research community recently [21].

Workplace wellbeing is an assessment of one's mental states. Wellbeing cannot be directly obtained through neither material world nor socioeconomical factors like income, education etc. [21]. Nonetheless, this does not mean that firms have no ability to influence workplace wellbeing. Workplace wellbeing is considered to be an interaction between individuals and situations surrounding them [22, 23]. Therefore, external factors like beliefs, socioeconomical factors, and connections with others play a role in shaping workplace wellbeing.

According to Schulte and Vainio [15], the concept of well-being in recent researches has been expanding through the years. Figure 1 shown below provides an illustrative evolution of workplace wellbeing as a concept throughout its history. Since its beginning in 1850, workplace wellbeing had only two individualistic focuses on concepts like correction and control, as well as curation and protection, which belong to the disciplines of aptitude testing and labor protection respectively. Fast forward to 2010, the concept of well-being has been expanded to cover many other distinctive topics and issues such as wellbeing at work, health promotion, health and wellbeing, quality of life etc. These concepts are multidisciplinary in nature, i.e., it requires knowledges from multiple research disciplines to inform a workplace wellbeing policy. For example, the discipline of human resource development, cited in Figure 1, operates on an assumption to help employees develop their personal and organizational skills, knowledge, and abilities [24]. Its scope is considered to be much broader than a traditional human resource management research tradition, in which the focus is simply on how companies can motivate and incentivize employees to achieve a company's pre-determined goal [24].

Despite a large increase in interest on the topic of workplace wellbeing from academic research communities [8-10], and practitioners [7, 25], little is known about factors that would form a workplace wellbeing according to today's employee requirements. In addition, with a specific interest of this literature review on workers within the rapid changing ICT industry. The next section will look into factors that an existing body of research believes to contribute to a workplace wellbeing.

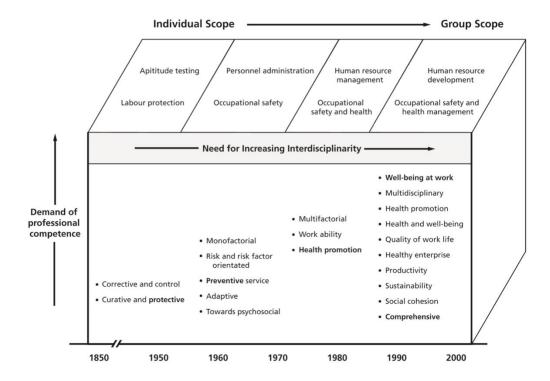


Figure 1
Evolution in focus on the health and well-being of the workforce (Source: Schulte and Vainio [15])

### Factors of workplace wellbeing

The concept of workplace wellbeing has been recognized as a growing interdisciplinary concept [15]. The concept's factors have continuously expanded throughout the years, i.e., from a simple focus on labor protection and occupational safety to human resource development and occupational safety and health management as it is today [15]. This section analyses factors suggested in the literatures regarding workplace wellbeing. Overall, we can arrange factors suggested in the literatures into eight respective groups: (1) career prospect, (2) organizational culture, (3) subjective psychology, (4) work-life balance, (5) work demands, (6) health and safety, (7) negative work consequences, and (8) physical environment. Table 1 shown below presents an analysis of factors relating to workplace wellbeing in the literatures.

Table 1
Summary of workplace wellbeing factors in the literatures

	•		_		C							
Factors	[26]	[27]	[28]	[29]	[30]	[31]	[32]	[33]	[34]	[35]	[36]	[37]
Career prospect	X				X							X
Organizational culture	X	X	X	X	X				X	X		
Subjective psychology		X	X	X	X	X		X	X	X	X	X
Work-life balance	X	X			X				X			
Work demands					X					X		
Health and safety	X				X		X					
Negative work				X	X		X	X			X	
consequences												
Physical environment					X	X						

Career prospect represents factors relating to a job outlook. Items included in this factor are job security, procedural equity, distributive equity, learning opportunity [30], employee growth and development, employee involvement [26], and pay [37]. The study results from [30] offer a viewpoint that an intervention to improve employees' workplace wellbeing results in a statistically significant result in employee's perception toward their workplace wellbeing in comparison to an organization's approach to remain neutral. Hosie and Sevastos [37] treat pay as facet specific. When pay is considered alone, employees with higher pays tend to report a higher sense of satisfaction. Nonetheless, when pay are combined with other conditions and experiences ones receive from work, e.g., stress level, it is not certain that a higher pay will result in a better workplace wellbeing.

Organizational culture presents a general climate within a particular organization on works. Items included are employee recognition [26], organizational respect for employee, employer care [27]. Employee recognition is defined as "as the expressed appreciation by one person to another for that person's behaviors, activities or impact" [38]. In the research result from Grawitch, et al. [26], employee recognition is shown to be a statistically significant factor in determining workplace wellbeing. Hyett and Parker [27] test a questionnaire called Workplace Wellbeing Questionnaire (WWQ) with a large population in order to further strengthen its validity, they find that respect for employee and employer care are some of the key factors that contribute to workplace wellbeing.

Subjective psychology embodies concepts relating to personal psychological states toward his/her job. Items grouped under this umbrella term are: work satisfaction [27], positive emotion, employee engagement [28, 29], job satisfaction [30, 33, 36], work self-efficacy, organizational commitment [30], psychological needs [31], work engagement [33, 36], psychological job demands, job control [34], work-related affection [35], and affective wellbeing [37]. Subjective psychology is the most widely researched topic as it is believed to determine workplace wellbeing. Current research from these topics [33, 39, 40] within the field of subjective psychology suggest that it is important for management teams to manage and promote these subjective psychology aspects within their organizations. It is strongly suggested that these aspects result in a higher productivity and sustainability for organizations. Employees who are satisfied and engaged tend to be committed to their organizations. They perform better at work, and they are unlikely to leave their organizations to work elsewhere.

Work-life balance captures concepts relating to conflict between elements in work and life. Concepts represented are: work-life balance [26], intrusion of work into private life [27], flexible work arrangement [30], work to family, and family to work conflict [34]. According to a research finding from Batt and Valcour [41], an open opportunity for employees to manage their work-life arrangements through various means, e.g., an opportunity to work from home and a flexible work arrangement, enable workers to reduce work-life conflicts, and intention to leave. It is believed that employees who enjoy a satisfactory level of work-life balance is an indication toward workplace wellbeing.

Work demands apprehends physical, psychological, social or organizational aspects of a job that require continuous physical and/or psychological effort on employees. Concepts captured are workload, control/autonomy over job, job content, role clarity, physical work demand [30], and job demands [35]. Research result from [35] offers an evidence that job resources, i.e., resources that can be used to achieve work goals, and reduce job demands [42], can buffer negative effects from job demands. Therefore, work demands should be

considered in cooperation with job demands according to the *job demands-resources model* [42] in order to promote workplace wellbeing.

Health and safety denote general health and safety concerns toward employees. Conceptions included are health and safety [26], safety and health climate, perceived health, perceived safety at work, alcohol use, high risk health behavior, preventative health behavior [30], occupational safety, and occupation health services [32]. Overall, the health and safety aspect should be considered an elementary part of business operation. The initiative can be formulated in a way that it enhances a business' competitiveness [32]. It is also a very popular basis for workplace wellbeing among European nations [32].

Negative work consequences designate unfavorable aspects and consequences from work. Ideas represented are eustress, distress [29], job stress [30, 32, 33, 36], and work strain [32]. From the literature analysis, job stress is the most common concept utilized to represent a negative work consequence. It is conceptualized as a "disturbance of the equilibrium between the demands employees are subjected to and the resources they are given" [36]. Overall, the concepts represented under the negative work consequences can be discussed in relation to the *job demands-resources model* [42]. Negative work consequences represent a form of job demands, which has been mentioned earlier. In spite of their similar characteristic, negative consequences and job demands are presented separately in this literature review because they come from different origins. The negative consequences are purely psychologic response to stress ones feel from works, while the job demands are physical and/or psychological ones received directly from jobs.

Physical environments refer to functional, mood and tone of spaces within a workplace to answer one's need for works. Concepts captured are environmental conditions that promote effectiveness and efficiency [30], and functional needs [31]. Many research papers within the interior design discipline [43-45] demonstrate that an interior space, which are properly designed to meet functional needs, enhance workplace wellbeing for people involved.

From the analysis presented in Table 1, it is cleared that current researches on workplace wellbeing are focusing on the subjective psychology aspect to determine a workplace wellbeing. The second popular focus is on organizational culture, and the third focus is on negative work consequences. Important issues like work demands, and physical environment are the least popular research interests. As a result, it is fair to conclude that more studies in term of work demands and physical environments toward workplace wellbeing are warranted. There is a research gap on how these two factors might have an impact on workplace wellbeing.

# Applying workplace wellbeing research in the context of Thai ICT employees

Recent researches in ICT employees have shown that stress, burn-out and employee turnover are common problems within the industry [4-6]. Evenstad [5] describes that ICT employees experience "acceleration as a constant time pressure, work intensification, hyper connectivity, frequent organizational changes, short-termism, and rapid pace of technological change" in their daily work activities. These experiences result in a high level of stress, burnout and a lack of work life balance. Padma, et al. [4] assess a level of job stress and quality of life of ICT employees in Chennai, India. The study reveals that stress is a common problem within the industry. Several health issues, such as musculoskeletal symptoms, hypertension, diabetes, depression, anxiety, insomnia and obesity, are common among ICT employees. Given a number of negative issues facing ICT employees, it is without any doubt

that the ICT industry in general tend to experience a high level of employee turnover. Clearly stress, and physical health issues suggest a lack of workplace wellbeing among ICT employees. Efforts from ICT organizations are warranted to address the lack of workplace wellbeing.

Leading ICT organizations in the world, like Google, Facebook and Dropbox, are utilizing a fun and inspiring interior design as an approach to increase workplace wellbeing for their employees [46]. van Meel and Vos [47] refer to the interior design approach, in which a strong element of fun is attached into the design of working spaces as "Disneyfication". It is argued that this approach toward working space designs allows a higher sense of relaxation for employees. In addition, employees do not feel that their organizations are stringent. Therefore, they feel at ease to promote new ideas and innovations. This is also an approach commonly used by leading ICT organizations to attract young talents [46]. According to interior design experts [48], using interior design to enhance a workplace wellbeing should focus on three factors. First, the interior design should enable a feeling that employees are in control of psychological and societal factors around them. Second, the interior design should allow an easy access to social help, i.e., an easy chat with work colleagues. Last, the interior design should attract attentions into pleasurable environments.

Using evidences from ICT employees available in current research, it is suggested that a research on factors contributing to ICT employees' workplace wellbeing, specifically from the perspectives of (1) stress, (2) physical health issues, and (3) interior designs are warranted for Thai ICT employees. The calls for research on these perspectives are in line with the research gap addressed earlier. Stress is considered a form of negative work consequences. Physical health issues belong to the category of health and safety. Lastly, interior design is a form of physical environment.

#### **SUMMARY AND CONTRIBUTIONS**

This literature review investigates factors relating to workplace wellbeing, and specifically suggest research directions for workplace wellbeing factors specific to Thai ICT employees. The analysis of literatures on factors of workplace wellbeing suggests that most popular aspects of factors relating to workplace wellbeing are (1) subjective psychology, (2) organizational culture, and (3) negative work consequences. The least popular aspects are (1) work demands, and (2) physical environment respectively. A further investigation into ICT employee literatures suggests that a research toward factors contributing to workplace wellbeing specifically from the perspectives of (1) stress, (2) physical health and (3) interior designs are warranted. These perspectives fall into the categories of negative work consequences, health and safety, and physical environmental respectively. A research endeavor to look into workplace wellbeing for Thai ICT employees will have a potential to fulfill research gaps on health and safety, as well as physical environmental aspects. This literature review contributes to the research gap, which suggests that there is yet to be research on workplace wellbeing relating to Thai ICT employees. The suggestion to focus future research endeavors on Thai ICT employees' workplace wellbeing is a primary step to closing the research gap on Thai ICT employee workplace wellbeing.

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# THE RELATION BETWEEN ORGANIZATIONAL HEALTH AND ORGANIZATIONAL COMMITMENT.

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# **ABSTRACT**

Modern management understanding considers human resources to be one of the most important assets of the organizations. While a successful organization will care to choose this asset from among the most qualified candidates, it should also endeavor not to lose its existing employees. Organizational commitment expresses both the employees' continuing to stay in the organization and their serving more willingly with the sense of belonging they feel to the organization they work in. The concept of organizational health is a holistic review of the concepts of employee welfare and organizational effectiveness. This paper examines how organizational commitment is affected by organizational health.

**Keywords:** Organizational Health, Organizational Commitment

#### INTRODUCTION

Under globalization and increased competition, the perception of employees in the enterprises has differentiated. The enterprises adopt their employees as internal customers, and strive to eliminate the factors that could affect their efficiencies and quality of their business lives negatively. The two aspects aimed at are the organizations not wishing to lose the qualified employees and enabling the employees to exhibit fully their knowledge, experiences and talents.

The topic of organizational health and organizational commitment, the two concepts which the organizations can draw from to achieve these aims, constitute the main subject matter of this study. In this context, revealing effect of the organization health on the organizational commitment will demonstrate the importance of organizational health for the enterprises. The relationship between these two concepts which are extremely important in terms of management.

#### **OBJECTIVE**

- 1. Study the Concept of Organizational Health and Organizational Commitment
- 2. Study sought to analyze both concepts together.

# The Concept of Organizational Health and Organizational Commitment

Many studies have been conducted on organizational health and organizational commitment, and these two concepts have been addressed separately. But this study sought to analyze both concepts together.

# The Concept of Organizational Health

A uniform definition of organizational health has yet been made complete in the literature (Kipfelsberger, Herhausen, & Bruch, 2016). Organizational health definitions have been varied depending on the location and purpose of the group (Bradley, 2017). In general sense, organizational health means a unity of spirit, body, and mind in the organization: (1) Body means communication, structure and job distribution in the organization. (2) Mind refers to the way in which procedures, problems, and tasks are implemented. (3) The spirit refers to the passion and attachment felt in the organization (Ikhwan, Sudiro, Noermijati, & Rahayu, 2017). For Tutar (2014), healthy organizations are the ones that are truly purified from the factors that may cause occupational alienation. Xenidis and Theocharous (2014, p. 564) view organizational health, with respect to efficiency of all operations in the organization, as "the state of complete and unimpeded operation of all formal, informal, main and auxiliary organizational processes."

Organizational health is a concept denoting the effectiveness of an organization in diverse business settings and how the organization reacts to "changes in circumstances" (Janice, 2000). Organizational health can be deemed to be the competency of an organization to align, execute, and innovate itself more rapidly and effectively than co-players in the market. Organizational health is about adapting to the current and shaping the future faster and better than the competition (Keller and Price, 2011). However, from Mbachu and Frei's (2011) standpoint, organizational health is the degree to which an organization is capable of levering its key strengths to exploit crucial opportunities as well as minimize exposure of its critical weaknesses to serious threats.

The configuration of healthy organization which was developed by Miles (1969) comprises ten elements. The first set of elements depicts the task needs of a social system which encompasses goal focus, communication adequacy, and optimal power equalization.

Goal focus: The goals of the organization should be achievable and clear to the members in the organization. Communication adequacy: When information travels distortion free in the organization, both vertically and horizontally, adequacy of communication is provided. Optimal power equalization: The organization is at a good state when the distribution of influence is relatively equitable and justified in the organization among leaders and employees. The second set of elements indicates the maintenance needs which include resource utilization, cohesiveness, and morale. Resource utilization: The inputs into the organization like personnel are to be used effectively, for example, one person working up to his limits with a minimal sense of strain. Cohesiveness: A clear sense of identity should prevail in the organization, knowing who they are or it is, so that people are attracted to membership by being in the organization. Morale: A sound feeling of well-being or satisfaction should spread in the organization. The third set of elements include security and pleasure, innovativeness, autonomy, adaptation, and problem-solving adequacy which entail growth and change needs of the organization. Security and pleasure: environment is also rendered in high morale organizations. Innovativeness: A healthy system stays innovative, follows new goals, produces new kinds of assets, and changes itself for a better state over time. Autonomy: Organizations should have a kind of independence from their environment, showing the ability of acceptance or rejection to fulfill their roles and responsibilities. Adaptation: The ability to bring about a corrective change in the organization, in accordance with the surrounding environment, and helps it to withstand against stress and maintain stability. Miles (1965) gave an example of the disappearance of dinosaurs, which could not meet the conditions behind adaptation in some ways. Problemsolving adequacy: An adequate organization solves its problems with assets and personnel it has at present. Organizations need to have a well-established structure for detecting a problem, implementing a solution, and evaluating the effectiveness.

According to Selye (1974), strong bondings among members of a group are a key determinant of organizational health. Meanwhile, Gears (2011) looks at collaborations, information sharing, and knowledge creation as fundamentals to organizational health, wealth, and survival in the global economy. Nine elements contributing to organizational health, as discerned by Keller and Price (2011), comprise of leadership, direction, external orientation, culture and climate, capabilities, motivation, accountability, coordination and control, and innovation and learning.

# **Dimensions of Organizational Health**

Since 1965, organizational health has drawn the attention of particularly Matthew b. Miles and Wayne K. Hoy, and based on the researches, they have defined this concept, stressed its importance, and then developed dimensions to be able to measure the organizational health, which they argued to be important for the organizational success (Polatci et al., 2008: 147). The Organizational Health Dimensions Developed by Miles. According to the model brought forward by Miles, dimensions of the organizational health may be summarized as follows (Hoy & Feldman, 1987: 30, Buluc 2008: 576-578, Karaguzel, 2012: 9-10).

#### **The Task Needs Dimension**

Objective-Focus: The objectives are easily understandable, acceptable and achievable by the organization members. Communication Adequacy: An in-organization communication system presenting misunderstandings is available. Thus, the employees access correct information and increase organizational efficiency. Optimal Power Uniformity: Distribution of the power within the organization is relatively uniform. They always think that those at lower levels can influence those at the immediate upper level.

# **Survival Needs Dimension**

Effective Use of Resources: Task distribution within the organization is done in the most effective way neither less nor more than as required. There is a coherence between the demands and needs. Organizational Commitment: The employees like the organization and want to stay there. They are influenced by the organization, and spend all their powers for unity of the organization. Morale: There is employee welfare and team satisfaction in the organization in general.

# **Growth and Development Needs Dimension**

Innovativeness: The organization develops new procedures, sales new targets and constantly develops. Autonomy: It is proactive to the organization. It shows several independent characteristics to the outer factors. Adaptation: The organization has the skill of making the necessary changes in itself for growth and development. Problem Solving Competency: The problems are solved with minimum energy. Problem solving mechanism is constantly supported and strengthened.

# **Organizational Health Dimensions Developed by Hoy**

Hoy and Feldman examined organizational health in seven dimensions. These seven dimensions are as follows (Hoy & Feldman, 1987: 32, Buluc 2008: 576-578, Karaguzel, 2012: 9-10): Organizational integrity: The organization ensured the integrity in its programs through its capacity of adaptation to its environment. Influence of the organization manager: The organization managers can influence decisions of the senior system they are subordinate to. The ability to convince their decision organs, having reputation and not being blocked by the hierarchic impediments are important factors of the organization managers. Respect: This involves the friendly, supportive, overfly and sincerely behaviors exhibited by the organization managers to the employees. Such behaviors are important for the increase of performances of the employees. Work Order: This involves behaviors of the organization

manager relating to the tasks and achievements. Expectations from the employees, performance standards and policies are clearly expressed by the organization manager. Resource support: This involves availability of sufficient machinery and equipment in the organizations, and procurement of additional resources when requested. Morale: This is the sum of friendship, openness between the organization members, and feelings of excitement and confidence about the work. Being proud of the organization, employees help each other and treat one another with respect and completing the tasks make them happy. Importance of the work: This is about the organizations seeking for work excellence. Work is started by setting high but achievable targets for the employees, and production for the employees, and production activities are carried out in a serious and orderly fashion.

It is possible to group these dimensions as organizational health dimensions at the institutional, managerial and technical level. Accordingly, institutional level consists of institutional integrity dimension, managerial level consists of dimensions of work order, respect, influence of the organization manager and resource support, and technical level consists of the levels of morale and importance of the work (Polatci et al., 2008: 149).

# Organizational Health Dimensions Developed by World Health Organization

With a more general classification in regard to the dimensions of organizational health, the World Health Organization (WHO) examines the organizational health in 4 dimensions. These are as follows (Cooper & Williams, 1994:8, Ardic & Polatci, 2007: 146): Environmental Health: This involves the work area factors, such as physical environment of the workplace, noise, heat, light, dangerous substances and machinery. Physical Heath: This involves the physical health of the employees in the organization, illness, injury, and activities, such as medicine treatment. Psychological Health: This involves self-confidence of the employees, stress, depression, anxiety states, and behavioral styles. Social Health: This involves friendship in the workplace, social support, workplace relations, and factors outside business.

According to the World Health Organization, there is no precise lines between these factors, and there are connections among these four dimensions. According to this perspective, only physical and spiritual health of the employees are addressed, and the managerial and organizational output dimensions are not included (Altun, 2001: 44)

# **Characteristics of Healthy and Unhealthy Organizations**

It is required to know the characteristics of healthy and unhealthy organization, so as to derive the desired benefit from organizational health. In light of these characteristics, the organization should be analyzed, the revealed data should be interpreted, and solution of the problems leading to the unhealthy structure should be ensured (Polatci et al., 2008: 149)

**Table 1: Characteristics of Healthy and Unhealthy Organizations** 

Healthy Organizations	Unhealthy Organizations		
Open to innovation and improvement	Not open to innovation and improvement		
Its long-term effectiveness is high	Its long-term effectiveness is low		
Employees are ensured to participate in the	Employees apply the decisions made by top		
decisions	management		
Organizational commitment is developed	Organizational commitment is not		
	developed		
Responsible to the environment and	Not responsible to the environment and		
employees	employees		
Proactive, takes preventive measures	Reactive, corrective actions are taken		
Work stress is low	Work stress is high		

Work satisfaction and workplace peace is	Work satisfaction and workplace peace is
high	low
Importance is attached to employees	Importance is not attached to employees
Number if absences and quits is little	Number if absences and quits is big
Communication between the individuals	Communication between the individuals
and top management is strong	and top management is weak
Worker safety is present, work accidents are	Work safety is not present, work accidents
scarcely encountered	are frequently encountered
Employees work with high motivation and	Employees work with low motivation and
exhibit high performance	exhibit low performance
Unfavorable internal and external	Unfavorable internal and external
environmental conditions cannot damage	environmental conditions can damage the
the organization	organization
Team spirit is developed, employees act	Team spirit is not developed, employees act
with the sense of "us"	towards their personal interests
Employees feel themselves safe in the	Employees do not feel themselves safe in
organization	the organization
Information flow is robust and timely	Robust and timely information flow is
	unavailable
Strategies are out into practice successfully	Incapable to put strategies into practice
An open, trust-focused and encouraging	A closed, retributive and unfair organization
organization culture is present	culture is present
Problems are intervened and encouraging	Evidences of the problem are adressed, the
organization culture is present	core cause cannot be identified
The organization is efficient and effective	The organization is not efficient and
	effective

Source: Karaguzel, 2012: 21

In conclusion, characteristics of healthy organizations may be briefly listed as follows (Cicchelli, 1975): Objectives and responsibilities are clearly set, Systematic problem solving and evaluation is performed. A constructive and open-to-change organization spirit is present. The energy required for growth and development and the feedback system are available.

## What to Do to Enhance Organizational Health

As in the human organism, healthy structure is hereditary in most of the organizations (Aguire et al., 2005: 1). However, a study revealed that each organization can use specific methods and tools to enhance organization health. Several arrangements are required for changing the organization structure and being able to form a healthy organization structure (Vasie and Lucas, 2001: 481)

According to Miles, the following five approaches are very important for increasing the organizational health (Miles, 1969: 376): Supporting personal development, Placing importance on communication, Strengthening information flow, Establishing an open-to-change organization culture, Specialist support.

# The Concept of Organizational Commitment

Some definitions concerning organizational commitment are given below (Meyer & Herscovitch, 2001: 302; Ince & Gul, 2005: 3; Balay, 2000: 14-16; Ilsev, 1997: 5; Bildiren, 2001: 38, Karaca, 2001: 48; <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, <a href="www.insankay

As a result of the study conducted in 1979 by Mowdey, Steers and Porter, they defined the organizational commitment as an affective bond between the employees and the enterprise. Organizational commitment is the relative strength of the individual's identification with and participation in a given organization. According to Meyer and Allen, organizational commitment expresses the psychological approach of the employee to the organization, and is a psychological state reflecting the relationship between the employee and the organization, leading to the decision of continuing the organization membership. According to Rietzer and Trice, it is a psychological phenomenon based on the level of meaningfulness of the organization depending on the individual. According to Hall, Schneider and Nygren, it is the process where the organization and the individual integrate and become coherent over time. According to Buchanan, organizational commitment is a whole consisting of the elements of identification with the organization, adopting the work and loyalty to the organization. Apart from the objectives and values of the organization, role of the individual determined on the basis of these objectives and values and the interest-based value, it is commitment to the organization itself in a partisan and emotional manner. It is the strength of the individual's identification with the organization and participation in the organization. In other words, organizational commitment is the strength of the individuals identifying oneself with and being nestled within the organization. Identification with the organization involves the dimension of loyalty that incorporates sharing the objectives with other organization members, the sense of belonging to the organization, and supporting the objectives and policies of the organization.

In light of the above definitions, organizational commitment may be summarized in general as a phenomenon characterized with these three factors. The factors are listed as (Steers & Porter, 1983: 443, Yalcin & Iplik, 2005: 397, <a href="www.insankaynaklari.com">www.insankaynaklari.com</a>, Onal, 1999; 9; Cetin, 2004: 90): accepting and believing in the objectives and values of the organization, willing to strive for benefit of the organization and continuous development, and finally being enthusiastic to remain as part of the organizational structure.

An organization having employees with high organizational commitment implies that it has a strong organizational structure. This results in increase of will of being part of this culture for the new employees, adopt the organizational culture, and make it part of their values. Organizational culture affects the organizational commitment by serving as a bridge for the employees between their priorities and the organization's objectives. It supports formation or reinforcement of the organizational commitment by ensuring development of a sense of identity and encouraging participation in the organizational objectives among the employees (Gul, 2003: 75)

#### **Organizational Commitment Classifications**

While the initial studies on organizational commitment describe organizational commitment as a one-dimensional structure reflecting internalization of the organizational values, Meyer and Allen revealed that organizational commitment had three different elements (Coleman et al., 1999: 996). The said elements which are affective, continuance and normative commitment can be explained as follows (Ince & Gul, 2005: 39): Affective Commitment: Affective commitment of the employee to the organization reflects integration with the organization. Affective commitment can be suggested to involve acceptance by the employees of the organizational objectives and values, and their making extreme effort for the benefit of the organization (Gul, 2002: 45). Individuals with a high affective commitment stay in the organization "because they want to", and are desirous to make great effort for the interests of the organization. Hence, it is the type of commitment which is most desired to take place in the organizations and desired to be instilled to the employees (Uyguc & Cimrin,

2004: 91). Continuance Commitment: In the literature, this type of commitment is also referred to as rational commitment and perceived cost. Continuance commitment means being aware of the costs to eb entailed by quitting the organizations. In continuance commitment, the senses are thought to play a very little role in commitment to the Continuance commitment is the sense of continuing the organization organization. membership since it is thought that cost of quitting the organization would be high (lisev, In 1990, Meyer and Allen developed the three 1997: 22). Normative commitment: dimensional organizational commitment model by adding the dimensions "normative" or "ethical" as suggested by Weiner and Vardi and developed by Weiner to the affective and continuance commitment. Normative commitment shows faith of the employees concerning the responsibility felt by them to their organizations. As normative commitment has developed as a result of the employee's perceiving his/her showing commitment to his/ her organization as a duty and social responsibility and thinking that commitment to the organization is right, it represents a dimension that is different from the other two types of commitment (Gul, 2002: 45). Normative or ethical commitment differs from affective commitment in that the individual regards working in the organization as duty for himself/ herself and feels that showing commitment to the organization is "right", and from the continuous commitment in that it not affected by calculation of the losses to result from quitting the organization (Solmus, 2004: 215).

The common point between all the three types of commitment is existence of a bond between the individual and the organization that reduces the likelihood of quitting the organization. Namely, in all these three types of commitment, the employees continue to stay in the organization. However, in the first, the motive of staying in the organization is based on willingness, in the second, on necessity, and in the third, on obligation (Balay, 2000: 72).

#### **Conclusion**

Organization health must be enhanced in order to retain the human resources, which are an extremely important value for the employers. The managers should make efforts towards enhancing organization health of the enterprises to increase commitment of the employees and keeping the personnel turnover rate low. Formation of such organizations which have ensured coherence with their environment, have effective managers, where employees are respected, roles have been clearly set, access to the necessary resources is easy, employees have high morale, and success is valued, will ensure that the employees have a favorable organizational commitment that is created through the employees' genuine desires and adoption of the organization's targets.

Moreover, forming and developing the organizational health reduces the organization costs while positively influencing many factors such as organization effectiveness, work satisfaction, organization commitment, organizational performance and employee health. It can be suggested that, since, by this way, both effectiveness and efficiency increases, and the costs incurred as result of the activities decrease, healthy organizations have competitive advantage compared to unhealthy organizations.

In conclusion, although the necessary importance has not been attached to the concept of organization health to date, organization health is more important than ever particularly in today's business life, and confronts us as a topic that needs to be investigated. A healthy organization structure must be established at the individual and organizational level for an effective organization structure.

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# A RESEARCH PROPOSAL: FACTORS OF BEHAVIORAL INTENTION TO USE MHEALTH FOR SELF-CARE APPLICATION AMONG YOUNG ADULTS IN BANGKOK, THAILAND.

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#### **ABSTRACT**

Self-care through mHealth provides an instant medical access to anyone, anytime, anywhere. DoctorMe is a mHealth application for self-care purpose in Thailand. Despite its vast array of potential benefits to users, its success – measured in term of user download – is negligible. This research proposal examines factors relating to behavioral intention to use DoctorMe application among young adults in Bangkok, Thailand. Perspectives from four theories, Technology acceptance theory (TAM), Diffusion of innovation theory (DOI), Social cognitive theory (SCT) and Channel expansion theory (CET), are combined to explore the research question. The research proposal proposes a two-step data collection method. A qualitative data collection through interviews will begin. Subsequently, a quantitative data collection with an estimated sample size of 383 will follow. The research proposal fulfils two existing literature gaps on limited mHealth literatures by providing mHealth knowledge from developing country and user's perspectives.

**Keywords**: mHealth application, self-care, behavioral intention, young adults

#### INTRODUCTION

Healthcare of the 21<sup>st</sup> century is available through mobile devices since more people than ever carry mobile devices with them around the clock (Free et al., 2013). The concept is known as mHealth or Mobile health. mHealth can be used for various purposes, one of them is mHealth for self-care. Most importantly, self-care through mHealth provides an instant medical access to anyone, anytime, anywhere (Free et al., 2013; Paoin, 2017).

This research proposal is interested in a kind of mHealth application for self-care purpose. The application is called DoctorMe (<a href="www.doctorme.in.th">www.doctorme.in.th</a>). The application is available free of charge to anyone in Thai through Google Play Store and Apple App Store. The ultimate aim of DoctorMe is to provide suitable self-care information access to general people in order to avoid unnecessary visits to medical centers and the like. The application provides verified medical information and recommendations on treatments and remedies for common illnesses, like headaches and cold, and general health advices to maintain a healthy lifestyle.

According to a research on medical information search on the Internet (Pehora et al., 2015), most people are searching for information about basic conditions and illnesses that are treatable at home. Common illnesses such as cold, skin allergies, and fever do not require any medical attention from professional medical staff. They are perfectly treatable through proper self-care knowledge. Through a mHealth application for self-care like DoctorMe, people receive a higher level of access to medical assistance (Pehora et al., 2015). On top of that, medical access through mHealth is much more cost effective in comparison to the tradition approach (Larsen-Cooper, Bancroft, Rajagopal, O'Toole, & Levin, 2016). Economies of scale play a significant role in determining cost effectiveness of mHealth services; the more people start using mHealth, the more cost effective it becomes (Larsen-Cooper et al., 2016).

Despite clear benefits of mHealth for self-care applications, a success of DoctorMe is minimal. According to a download information found on Google Play Store in December 2019, the application has been downloaded 100,000+ times in the past nine years since the first time it became available in January 2012. Comparing with a widespread adoption of smart phones among Thai population (GSMA, 2017), the success of DoctorMe application is negligible.

Two research gaps identified from a perspective of mHealth are: (1) a limited body of research of mHealth from a context of developing countries (Free et al., 2013), and (2) there is a limited body of research of mHealth from a user perspective (Holden & Karsh, 2010; Kim & Park, 2012; Wilson & Lankton, 2004). This research proposal expects to close the two research gaps.

The proposal intends to identify factors relating behavioral intention to use DoctorMe application among young adult population in Bangkok, Thailand. Young adults, defined as those who are between 18-23 years old (Dimock, 2019), is of interest due to a fact that they are the generation born with technology. Smart phones and the Internet are indispensable technologies to them. It is believed that an understanding into this generation regarding their behavioral intention to use DoctorMe application will provide an essential step to promote the application success among Thais in other generations. The research question adopted in this research proposal is: What are factors relating to behavioral intention to use DoctorMe application among young adults in Bangkok, Thailand?

After the introduction presented here, this proposal comprises of other five sections. Objectives for the research are specified next. After that a section on literature review presents a review of basic literatures relevant to the research topic being explored. It follows by a section on key factors related to behavioral intention to adopt mHealth. It continues with a section on methods, before closing up with a section on conclusion.

#### **OBJECTIVES**

This research proposal has the following objectives:

- 1. To determine factors relating to behavioral intention to use DoctorMe application among young adults in Bangkok, Thailand.
- 2. To propose a policy that promote behavioral intention to use DoctorMe among young adults in Bangkok, Thailand.

#### LITERATURE REVIEW

The literature review represents a review of basic literatures relevant to the research topic being explored. Key concepts like mHealth, self-care and young adults are explained to create a common understanding toward the research context. Next, DoctorMe application, i.e., the mHealth for self-care application in focus, is described. The section ends with a subsection on related literatures on behavioral intention to adopt mHealth from a user's perspective.

# mHealth and its significance for self-care

mHealth is defined here as: "wireless devices and sensors (including mobile phones) that are intended to be worn, carried, or accessed by the person during normal daily activities" (Kumar et al., 2013). This definition is preferred over a wider definition of mHealth from the World Health Organization (WHO, 2016), which spans over basic telephone calls to call centers as well as modern mobile devices. The chosen definition is more in line with the nature of mobile phone application and smart phones, which are at the core of this study.

Self-care is defined as: "the practice of activities that individuals initiate and perform on their own behalf in maintaining life, health, and well-being." (Orem, Taylor, & Renpenning, 1995). Under this definition, a responsibility to perform self-care falls under one's own responsibility. It does not press any responsibility on any other institutional units, e.g. families, and communities (WHO, 2013).

For Thais, using mHealth for self-care purpose is beneficial from three perspectives. First, it promotes a higher level of access to medical assistances (Pehora et al., 2015). Users are no longer limited to one-to-one visits to medical centers to receive health advices. Health information and advices are now made available through a mobile phone application, which is accessible anytime, anywhere. Second, mHealth solutions for self-care yield a much lower cost than traditional approaches to self-care (Hunchangsith, Barendregt, Vos, & Bertram, 2012). The lower cost benefit presented by mHealth for self-care applications make it a viable investment alternative for the government in the long run since it will help saving resources spent on healthcare services (NHS, 2018). Last, mHealth applications for self-care is in line with the Thai Ministry of Heath's strategic plan called "Thailand Health 4.0" (Paoin, 2017). This plan runs between 2017 – 2031. One of the core ideas promoted in this plan is Protection and Prevention (P&P) excellency through innovations. The aim is to enable Thai people with basic knowledge toward self-care so that they have a good health.

# Young adults

Young adults are referred to population who are between 18 – 23 year old as of 2020 (Dimock, 2019). According to a latest research from the Electronic Transactions Development Agency (ETDA) in Thailand (ETDA, 2019), young adults spend approximately 10 hours 22 minutes on the Internet on weekdays, and 11 hours 50 minutes on the Internet on weekends. Comparing to other generations, young adults spend the most time on the Internet. Young adults were born amidst rapid advanced telecommunication technologies, especially the Internet and smartphones. They are surrounded by the always-on technological environment. A research specific to their behaviors as consumers (Priporas, Stylos, & Fotiadis, 2017) indicates that they have different expectations from online interactions than other generations. For example, it is indicated that young adults expect to see more interactive features on the Internet, therefore any Internet-based businesses must adapt themselves in relation to such expectation from this generation. Young adults are

predicted to represent 20 percent of the working forces (Iorgulescu, 2016), therefore it is imperative to understand their behaviors and expectations as Internet consumers.

# **DoctorMe: mHealth application for self-care**

DoctorMe is an application commissioned by the Thai Health Promotion Foundation, which is an autonomous government agency established by the Health Promotion Foundation Act in 2001, and other relevant non-profit health organizations in Thailand. The application was first available in January 2012.

The application has three purposes. The first purpose is to enable users to search for information and suggestions on common health problems, such as headache, common cold, and first-aid procedures in case of accidents, like burns. It informs users to treat themselves, while gives out guidelines and warnings on when to seek professional helps. The second purpose is to record health information of users and their loved ones. Health information records will allow professional medical staff to make informed decisions if users need to visit them. Third, the application provides a weekly health summary dashboard. This information will allow users to get a better picture of their health status and be in a better position to decide whether they should seek professional medical consultations.

All medical information available on the application has been verified by professional medical staff. As a result, information available on the application is reliable. In comparison with a practice of googling one's own information from various sources on the Internet, users will have to rely on many information clues to judge whether the information they receive is trustworthy or not (Humphrey-Ackumey, Adams, & Ahenkorah-Marfo, 2019). Obtaining information through a medically certified application like DoctorMe is reliable, accurate and trustworthy.

# Related literatures on behavioral intention to adopt mHealth

Related literatures specifically on mHealth topic are scared, therefore this literature review include a review of literature on relevant topic such as eHealth (Kim & Park, 2012; Wilson & Lankton, 2004) as well. Table 1 presents a summary of relevant literatures on this topic with regards to behavioral intention to adopt mHealth/eHealth from a user's perspective.

The following conclusions can be observed from the literatures on mHealth adoption. First, the technology acceptance model (TAM) is a popular theory used to underpin most research on behavioral intention to adopt mHealth. There is only one research (Zhang, Guo, Lai, Guo, & Li, 2014), which does not rely on TAM as the main theory. Common TAM variables used to explain behavioral intention to adopt mHealth are; perceived ease of use (PEOU), perceived usefulness (PU), and attitude (ATT). TAM is a robust theory to be applied in the context of mHealth adoption (Marangunić & Granić, 2015).

Second, although TAM is a popular choice of theory, it is rarely used in isolation to explain behavioral intention to adopt mHealth. In most research papers cited in Table 1, TAM is used in conjunction with other concepts and theories. Other theories used in conjunction with TAM are, for example, the diffusion of innovation theory (López-Nicolás, Molina-Castillo, & Bouwman, 2008), and the motivational model (Wilson & Lankton, 2004). TAM demonstrates an ability to align well with other theories to further strengthen their ability to explain mHealth adoption from diverse perspectives. In fact, the ability of TAM to align well with other theories is a remedy to TAM's criticism in the context of health information systems (Verkasalo, López-Nicolás, Molina-Castillo, & Bouwman, 2010). Holden and Karsh (Holden & Karsh, 2010) criticize TAM in the following way: "TAM is increasingly portrayed as a fitting theory for the health care context. Yet, the TAM is not a model developed specifically in or for the health care context. If used in its generic form, TAM may not

capture—or indeed may contradict—some of the unique contextual features of computerized health care delivery." Give this criticism, the way forward for TAM in the context of health information systems is to align TAM with other theories (Verkasalo et al., 2010). No single theory cold be suitable to every contextual setting.

Third, all of the research papers reviewed in Table 1 predominantly employ a quantitative research method. The quantitative research method yields advantages, such as study replicability, and access to a large number of samples (Bryman & Bell, 2015). Nonetheless, disadvantage such as a superficial nature of data cannot be ignored. Quantitative data cannot be used to describe and explain in depth about one's experiences, process of thinking and opinions about any certain matter. On the contrary, qualitative data, obtained through interviews and secondary data analysis, is more appropriate to provide such insight. A mixed method research, i.e., combining qualitative with quantitative research methods, should be encouraged within the topic of mHealth adoption to bring both breadth and depth of data collected (Tashakkori, Teddlie, & Teddlie, 1998).

Table 1 Summary of literatures on mHealth and eHealth

Research	mmary of literat Theory/ Theories	Data collection	Constructs	Study summary
Wilson and Lankton (2004)	<ul> <li>Technology acceptance model (TAM)</li> <li>Motivational model (MM)</li> </ul>	193 questionnaires from 1,750 eHealth users from the USA. The response rate is at 9 percent.	- TAM: PU, PEOU, BI - MM: IM, EM - TAM&MM: PU- EM	Factors related to eHealth design as explored by TAM constructs have an influence on intentions to adopt eHealth. On the contrary, only some personal preferences, such as Internet behavior, predict eHealth adoption.
López- Nicolás et al. (2008)	<ul><li>TAM</li><li>Diffusion of innovation (DOI)</li></ul>	questionnaires from advanced mHealth users in the Netherlands. The response rate is at 75.9%.	<ul> <li>TAM: PU, PEOU, ATT, BI</li> <li>DOI: Media influence (MI), Social influence (SI), Perceived flexibility benefit</li> </ul>	Social influences, such as recommendations from friends, in combination with traditional mHealth design features, like perceived ease of use (PU), explain a behavioral intention to adopt mHealth.
Mohamed, Tawfik, Al- Jumeily, and Norton (2011)	<ul> <li>TAM</li> <li>Other         <ul> <li>factors that             might             explain             behavioral             intention to             use mHealth</li> </ul> </li> </ul>	229 questionnaires from the UAE and the UK	Study 12 factors that might explain BI to use mHealth such as PEOU, PU masculinity/femininity, power distance, uncertainty avoidance etc.	Four groups of factors to explain BI:  - Technological design  - Social and cultural  - PEOU  - Perceived usefulness (PU)

Research	Theory/ Theories	Data collection	Constructs	Study summary	
Zhang et al. (2014)	- Theory of reasoned action (TRA)	481 questionnaires from mHealth users in China	- TRA: Facilitating condition (FC), Attitude toward behavior (ATTB), Subjective norms (SN), and Adoption intention (AI)	All factors in TRA — FC, ATTB, SN and ATTB*SN—lead to AI. When comparing between sexes, males tend to have a higher adoption rate than females.	
Kim and Park (2012)	<ul> <li>TAM</li> <li>Social cognitive theory (SCT)</li> <li>Other concepts</li> </ul>	728 questionnaires with internet health portal, a type of health information technology (HIT), users in Korea	<ul> <li>TAM: PU, PEOU, ATT, BI</li> <li>Health status (HS), Health belief and concern (HBC), Health threats (HT), subjective norm (SN) HIT self-efficacy (HIT-SE) and HITT reliability (HIT-R)</li> </ul>	TAM factors and other contextual factors, like HS, HBC, HT, SN, HIT-SE and HIT-R, could explain behavioral intention to adopt internet health portal.	
Deng, Zhang, and Zhang (2012)	- TAM	353 questionnaires with students in China on mHealth application	<ul> <li>TAM: PU, PEOU,</li> <li>ATT, BI</li> <li>Perceived service availability (PSA)</li> </ul>	ATT plays the most important role in determining BI	
Lim et al. (2011)	- TAM - SCT	175 women over 21 years old on mHealth	<ul> <li>TAM: PU, PEOU, BI, &amp;actual use (AU)</li> <li>SCT: Self-efficacy (SE) and Technology anxiety (TA)</li> </ul>	Adding SCT factors improves explanatory power of TAM to explore BI.	

#### FACTORS RELATED TO BEHAVIORAL INTENTION TO ADOPT MHEALTH

To explore factors related to behavioral intention to adopt mHealth application like DoctorMe, this research paper reviews four relevant theories and their inherent concepts and constructs. The four key theories reviewed are: Technology acceptance theory (TAM), Diffusion of innovation theory (DOI), Social cognitive theory (SCT) and Channel expansion theory (CET).

# **Technology acceptance theory (TAM)**

At its core, TAM explains that there are two main factors that explain behavioral intention (BI) to use a certain technology; perceived usefulness (PU) and perceived ease of use (PEOU) (Davis, 1989). There are more constructs presented in the original TAM model

according to Davis et al. (Davis, 1989; Davis, Bagozzi, & Warshaw, 1989), they are not related to this research context.

PU is defined as a "perception that using system leads to enhanced personal performance" (Davis, 1989; Davis et al., 1989). Many research papers within the context of mHealth have applied this construct in their research (López-Nicolás et al., 2008; Mohamed et al., 2011; Wilson & Lankton, 2004) to explain BI. These research papers consistently report a relationship between PU and BI. For example, Lopez-Nicolás et al. (López-Nicolás et al., 2008) report a standardized direct effect between PU and BI through the SEM statistical technique at .17 (p <0.01).

PEOU is defined as a "perception that using system will be free from physical or mental effort" (Davis, 1989; Davis et al., 1989). Similar to PU, this construct is also widely applied in the context of mHealth research (López-Nicolás et al., 2008; Mohamed et al., 2011; Wilson & Lankton, 2004) to explain BI. For example, Mohamed et al. (Mohamed et al., 2011) conclude that there is a correlation between PEOU and BI at a significant statistical level (r= .522, p <0.01)

BI is defined as a "the probability or a measure of strength of one's intention to perform a specific behavior" (Fishbein & Ajzen, 1975). BI is a common dependent variable used in TAM theory. It is applied in many mHealth research (Deng et al., 2012; Kim & Park, 2012). In a research result shown in Deng et al. (Deng et al., 2012), BI has shown a satisfactory coefficient of determination (R<sup>2</sup>) with other independent variables such as PEOU and ATT at 0.684.

Following TAM and other relevant research on TAM within mHealth, this research proposes the following hypothesis:

H1: Perceived ease of use (PEOU) and perceived usefulness (PU), which are factors based on the technology acceptance model (TAM), are explanatory factors of behavioral intention (BI) to use DoctorMe.

#### **Diffusion of innovation (DOI)**

DOI is a theory based on a premise that innovation awareness is one of the key steps within a process of innovation diffusion (Rogers, 2010). The entire process of innovation is comprised of the following: awareness, persuasion, decision, implementation, and confirmation.

Technology awareness (TA) is "the extent to which a target population is conscious of an innovation and formulates a general perception of what it entails" (Dinev & Hu, 2007). A research result, within a context of professional medical staff (Boruff & Storie, 2014), indicates that a lack of awareness to search for relevant medical information through mHealth is a significant factor that hinders information search efficiency. Another research on mHealth use within the UK (Kayyali et al., 2017) suggests that a level of mHealth awareness is relative low. The first step to fully realize potential benefits through mHealth is to promote mHealth awareness among the public. Prior research linking TA with BI (Dinev & Hu, 2007; Rehman, Esichaikul, & Kamal, 2012) suggest that there is a significant statistical relationship between the two variables.

Following DOI and other relevant research on DOI within mHealth, this research proposes the following hypothesis:

H2: Technology awareness (TA), which a factor based on the diffusion of innovation (DOI) theory, is an explanatory factor of behavioral intention (BI) to use DoctorMe.

#### **Social cognitive theory (SCT)**

SCT explains human behaviors through three premises: personal factors, environmental influences, and behavior continually interact (Bandura, 1986). It should be noted that SCT is a grand theory, which is being applied in many research fields, therefore many key constructs can be found depending on a specific contextual setting (Glanz, 2001). Key constructs explored in the context of mHealth are self-efficacy (SE), response-efficacy (RE), and technology anxiety (TA).

SE is "one's belief in one's ability to succeed in specific situations or accomplish a task" (Bandura, 1986). SE is not connected with one's ability to accomplish a task, it is simply a self-assessment or belief if one will be able to perform the task. Prior research from information systems (Compeau, Higgins, & Huff, 1999; Ma & Liu, 2005) and mHealth (Lim et al., 2011; Zhang et al., 2017) consistently indicates that SE plays a significant role in determining BI.

RE is "the degree to which an individual believes a recommended action is effective toward attaining a specific goal" (Witte, 1992). In the context of mHealth, RE refers to individual belief toward effectiveness of mHealth in answering their health-related questions and concerns (Zhang et al., 2017). RE originates from the efficacy theory, which is derived from SCT (Witte, 1996). In the context of information systems research, RE is further developed in the unified theory of acceptance and use of technology (UTAUT) (Venkatesh, Morris, Davis, & Davis, 2003a). A rational behind an application of RE is that performance expectancy, as indicated by RE, will act as determinant of BI (Sun, Wang, Guo, & Peng, 2013). Prior research results (Sun et al., 2013; Venkatesh et al., 2003a) show satisfactory statistical relationship between RE and BI.

TE is "an irrational emotional distress which is experienced by an individual when using or considering the use of computer technology" (Igbaria & Iivari, 1995). TE is negatively associated with self-efficacy, i.e., when individuals think that they are unable to use a particular technology, they create a stress for themselves. When they have to face the task of using such technology, the stress will cause disruptions, accidents, and failures in technology use experiences (Bandura, 1986). Many research papers (Scott & Rockwell, 1997; Tung & Chang, 2007) indicate that TE is a significant factor in determining BI, especially among older generations. Stress from TE negatively causes a diminishing likelihood toward BI.

Following SCT and other relevant research on SCT within mHealth, this research proposes the following hypothesis:

H3: Self-efficacy (SE), response-efficacy (RE), and technology anxiety (TA), which are factors based on the social cognitive theory (SCT), are explanatory factors of behavioral intention (BI) to use DoctorMe.

#### **Channel expansion theory (CET)**

CET posits that individual experience serves as an important role in determining the level of richness perception and development towards certain media mediums (Carlson & Zmud, 1999). Individuals, who have positive experiences with a certain media medium, are likely to consider that they gain more benefits from using such medium than other mediums available. In this sense, CET can be linked to BI. In the context of information systems research, past experiences with media mediums, e.g., the Internet, determines BI. In a comparative study with users with and without prior IT experiences, past experiences plays a significant role in predicting all TAM variables, such as PU, PEOU and BI (Taylor & Todd, 1995). Since mHealth for self-care is an unchartered territory for many people (Borel, 2013; Lim et al., 2011), previous experiences on Internet and mobile phone use for health information search could be significant in forming BI.

Internet experience (IE) refers to a prior experience of individuals in using the Internet to search for health information (Lim et al., 2011). Base on the premises of CET, those, who have prior experiences with the Internet, are more likely to continue using the Internet to search for information. Not all Internet users are alike when it comes to information search proficiency (López & Sicilia, 2014). Experienced users are better at understanding and managing information flow on the Internet (Liu & Shrum, 2009), as well as analyzing (Chevalier & Mayzlin, 2006), and selecting (Frias, Rodriguez, & Castañeda, 2008) relevant information on the Internet. It is anticipated that users with prior Internet experiences are more likely to form BI toward mHealth due to their superior understanding with the Internet technology.

Mobile experience (ME) refers to a prior experience of individuals in using mobile devices to search for health information (Lim et al., 2011). A similar argument to IE is adopted in relation to how CET might explain ME's effect on BI. In a comparative study between mHealth users with and without prior mobile experience, it is indicated that users with prior mobile experience find it very easy to start using an mHealth application. On the contrary, users without prior experience feel that they require not only a high level of support from others, but also a high level of mental effort on their ends, to start using the application (Nápoles et al., 2019). Many prior research papers, in the context of mHealth, posit ME to be an important factor to determine BI (Chung & Kwon, 2009; Cilliers, Viljoen, & Chinyamurindi, 2018; Venkatesh, Morris, Davis, & Davis, 2003b).

Following CET and other relevant research on CET within mHealth, this research proposes the following hypothesis:

H4: Internet experience (IE), and mobile experience (ME), which are factors based on the channel expansion theory (CET), are explanatory factors of behavioral intention (BI) to use DoctorMe.

Figure 1 presents a summary of hypotheses presented in this research proposal.

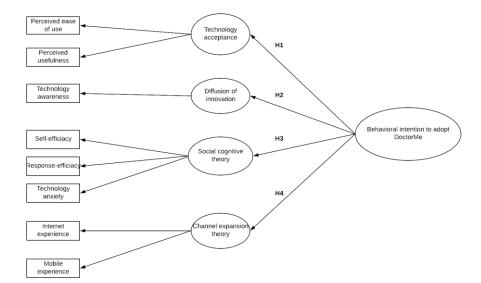


Figure 1 Summary of research hypotheses

#### **METHODS**

To carry out the research according the research question posited, this research proposal employs a combination of qualitative and quantitative research methods. First, interviews will be arranged with 20 participants in order to understand their experiences and thinking behind a behavioral intention to use or not use DoctorMe. Interview participants are expected to have no prior experience in using DoctorMe. In addition to that, their profiles must fit the research's case description, i.e. young adults within Bangkok, Thailand, who are between 18 – 23 years old. One week prior to a scheduled interview, participants will be asked to download and start using the application. The interview questions will be based around their experiences in using the application, and clarifying factors relating to their decision to use or not to use the application. Data received from the interviews will be coded and analyzed in order to create new measurement items for all constructs proposed in relation to readily available measurement items found for each construct in the literatures, such as PEOU (Davis, 1989), PU (López-Nicolás et al., 2008) and TE (Dinev & Hu, 2007) etc.

In the second step, a questionnaire consisting of newly created measurement items and existing measurement items in the literature will be created. To ensure validity, the newly created questionnaire will be sent out to a panel of experts for review to ensure its validity. With regards to reliability, the questionnaire will include readily available measurement items with stringent Cronbach's alpha values, i.e., above 0.7. Once the questionnaire data is collected with a combination of newly created measurement items obtained through the interviews and the existing measurement items available in literature, Cronbach's alpha values will be calculated for each of the item. Any item with a value below 0.7 will be deleted to ensure a high level of reliability.

Bachelor's degree students within Bangkok will be approached through their classrooms. These students are approached because they fit our case description, i.e., they are aged between 18 – 23 years old, so they belong to the young adult population, who live in Bangkok. One week prior to a survey launch, a ten-minute introduction with DoctorMe will be presented to the target group in their classroom. Detail and process about data collection will be clearly described to them. Incentives will be offered to them to encourage participation. Interested participants will be asked to leave their e-mail addresses with the researcher, download the application and start using the application. A week later, participants who signed up to take part in the study will be sent an e-mail containing link to an electronic questionnaire. Using a formula from Krejcie and Morgan (Krejcie & Morgan, 1970) to calculate for sample size of young adults in Bangkok, along with Thai population data from the National Statistical Office of Thailand (NSO, 2019), it is calculated that a sample size of 383 will be required for this study. No personal information about participants will be asked in the questionnaire, and data collected through electronic questionnaire will be protected through a password protected database, in which only the researcher has access to. Data collected through questionnaire will be analyzed using a second order confirmatory factor analysis technique, which is a sub-set of statistical techniques of structural equation modelling (SEM). SPSS and AMOS will be the statistical software employed to carry out the analysis.

#### CONCLUSIONS

This research proposal examines factors relating to behavioral intention to use DoctorMe application among young adult population in Bangkok, Thailand. DoctorMe is a mHealth application for self-care, which is facing a minimal success in term of user's acceptance despite its significantly large potentials to promote healthcare access. Young adults are of interest due to their unique online behaviors and expectations from other generations, as well as their growing significance in the workforce. It is believed an understanding into young adult's rational behind behavioral intention to adopt DoctorMe will be a necessary first step to improve the application's acceptance in the right direction. To explore the research question, four key theories are reviewed: Technology acceptance theory (TAM), Diffusion of innovation theory (DOI), Social cognitive theory (SCT) and Channel expansion theory (CET). The four theories, along with their relevant concepts and constructs form four hypotheses proposed in this research proposal. Data collection will be carried out in two steps. A qualitative study will begin with 20 interviews with the target group in order to understand their rationales behind a behavioral intention to adopt or not adopt the application. Results from this stag will feed into the next phase on quantitative study. A questionnaire will be designed using both existing measurement items and results from the qualitative study. Bachelor's degree students in Bangkok will be approached through classrooms to participate in this study. It is estimated that a sample size of 383 will be required to complete this study. A second order confirmatory factor analysis technique will be used for data analysis employing SPSS and AMOS statistical software packages. The research proposal fulfils existing literature gaps on mHealth in two ways. First, it will contribute to the literature on mHealth from a developing country perspective since Thailand is the main setting. Second, it will contribute to the mHealth literature from a user's perspective as users, not medical professional staff, are the main focus in this study.

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# THE INFLUENCE OF AUCTIONEER CHARACTERISTICS ON CONSUMER BEHAVIOR INTENTION IN ONLINE AUCTION.

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#### **ABSTRACT**

In the business-to-consumer online auction, there has been little research on the auctioneer factors. This study investigates the auctioneer characteristics that influence consumer's behavior intention in online auction of industrial machinery and equipment. The results suggest that ability (or competent), benevolent and integrity of auctioneer characteristics significantly influence the consumer's behavior intention to use the website, make purchases and engage in positive word-of-mouth.

**Keywords:** e-commerce, online auction, auctioneer, buyer

#### INTRODUCTION

eBay, the oldest and largest internet auction site, had a revenue of \$10.75 billion and net income of \$2.53 billion in 2018. E-commerce and online auctions industry have experienced exceptionally rapid growth since the beginning of the decade, outperforming most retail sectors. The rapid growth can be due to the pervasive spread of the high-speed internet and consumers being more comfortable with making purchases online. One of the main advantages of buying in online auctions is competitive price, mostly because of lower operating cost and taxes. In addition, e-auction usually has a very low starting price to attract more bidders and bidders have control over the price that they want to pay within their own reasonable price limit. Therefore, bidders have a chance to get a product at a lower price than by normal channels. Online auctions are also a widely accepted business model for the following reasons, such as, no fixed time constraint, flexible time limits, no geographical limitations, highly intensive social interactions which encourages a high-volume online business. In this study, there are two parties involved the bidder and the auctioneer. The Auctioneer is the seller and also the platform (or website) owner who offers services such as auction site for machine inspection before auction day, refurbishing and payment.

This study investigates online auction which sells industrial machinery and equipment through live and real-time online auctions. There is a broad range of used and unused industrial assets, including equipment, trucks and other assets utilized in the construction, transportation, agricultural, material handling, mining, forestry, petroleum, and marine industries. The equipment has no minimum sale price. Consumers can also find and bid on equipment via mobile devices. Online bidders watch the auction in real time and submit their bids via the internet. They are able to see pictures of the items currently up for sale, read the information included in the catalogue and hear the auctioneer's voice. The online broadcast also indicates the current high bid and the auctioneer's current "ask" price. The display indicates to an online bidder who the highest bid at the moment. In addition, the auctioneer often verbally acknowledges when an online bidder has submitted the highest bid.

Research on internet auctions has mostly focused on bidder behavior, auction design and trust in B2B, B2C and C2C types of online auctions. Nevertheless, research about the

potential influences of the auctioneer on consumer behavior in equipment and machinery online auction sites is lacking. In this context, it is essential to mention that the characteristics of auctioneers is one of the important factors in business-to-consumer (B2C) online auctions which significantly influence the consumer behavior intention.

Purchase intention is one of the dimensions of consumer behavior intention which has been used to predict actual behavior. Purchase intention has been found to be correlated to actual behavior. Based on the argument of Pavlou (2003), online purchase intention is when a customer is willing and intends to become involved in online transaction. Online transactions can be considered as an activity in which the process of information retrieval, information transfer, and product purchase are taken place (Pavlou, 2003). Online purchase intention has been determined as one of the most salient indicators of actual behavior to participate in online auction.

Apart from purchase intention, this study also investigates consumer behavior intention to use the auction website and consumer's willingness to engage in positive word-of-mouth.

#### **RESULTS**

Result of the study suggested that in B2C online auction, characteristics of auctioneer is one of the factors that leads to trustworthiness and influences consumer behavior intention. Research result found that though a number of factors have been proposed in the literature, the three important characteristics of the auctioneer in this study are (Table 1 and Fig 1.);

- 1. Ability (or competence) is the bidders' perception that auctioneer has the required expertise, skill and knowledge to perform the transaction effectively and reliably. Ability in the context of online auction may include good product knowledge, feasible advice and recommendations, past response to customer inquiries and fast delivery of the right product, all within the time frame promised.
- 2. Benevolence is the bidders' belief that the sellers will be responsible, helpful and take the buyers' interest into consideration rather than just maximize profit. For example, the auctioneer should be willing to compromise and be flexible when disputes arise.
- 3. Integrity is the auctioneer's ability to be honest, ethical and fulfill promises, all the while complying with the rules of the auction market. For example, the auctioneer should provide accurate display, photos and thorough descriptions for all of the products and be willing to offer information regarding the products that are being auctioned.

Research result also found that consumer behavior intention in this study should compose of 3 indicators as shown in Table 1 and Fig 1.;

- 1. Intention to use the auction website.
- 2. Intention to purchase.
- 3. Positive word-of-mouth.

**Table 1 Measurement Model** 

Construct	Indicators		
<b>Auctioneer Characteristics</b>	Ability (or Competence)		
	Benevolence		
	Integrity		
<b>Behavior Intention</b>	Intention to Use the Auction Website		
	Intention to Purchase		
	Positive Word-of-Mouth		

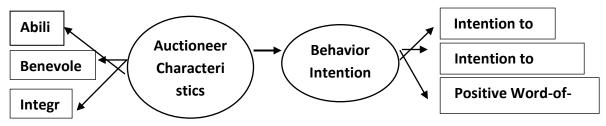


Figure 1 Research Model

#### CONCLUSIONS

Our study found that consumer behavior intention is influenced by auctioneer characteristics such as ability (or competence), benevolence and integrity. These characteristics contribute differently to consumer behavior intention (intention to use the auction website, intention to purchase and positive word-of-mouth). These results are consistent with earlier studies of Wu et al., (2014), Lien et al., (2015), Flavian et al., (2005), Pavlou, (2003). Gefen & Straub, (2000), Xu, (2017) and Ponte et al., (2015)

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# STUDY THE FACTORS AFFECTING SUSTAINABILITY TOWARD ELECTROPLATING INDUSTRY IN THAILAND

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#### **ABSTRACT**

This research purpose is to study the factors affecting sustainability of Thai electroplating industry. In order to understand the importance of each factors and from the frame work, research methodology of this article was the documentary research by using the secondary data from documents and related research to study, analyze and data synthesis to get the factors that affect the sustainability. There are three independent factors which are innovation capability, organizational climate and dynamic capability while sustainability is the dependent factor. Moreover, the correlation between factors are studied to translate the effect of each factors to sustainability so that the conceptual model of Thai electroplating industry sustainability is made and concluded.

Keyword: Innovation Capability, Dynamic Capability, Organizational Climate, Sustainability

#### INTRODUCTION

Along with the long history of Thailand economy, industry is the immense and major section. Thai economy has been a crucial industry base for south east Asia. As for Gross Domestic Product ) GDP(, World Bank ) 20180 ] 1[ stated Thailand has 3.9 GDP which is higher than the world average ) at 3.66( and higher than many advanced nations such as the United states, some Europe nations, Japan or Korea. In the whole picture, Thailand economy has an increasing growth and export has been a good performance and local demand is rising constantly.

The government has announced the 2018-2037nation strategy as the 20-year country develop plan (NSCR, 2018) [2]. The objective is to visualize the nation to be develop "country to be sustain with the Sufficiency economy philosophy or with the motto "secure nation, happy people continually developing economy, just society and sustain natural resources". The nation strategy plan is to level the country potential in all aspects and in all ages of people to be a capable personal, create the equality to the nation with the eco-friendly environment.

Recently electroplating factories has been significantly increased both international corporate in-house and SME job-plating factories. Electroplating processes are also varied based on preferred applications such as Nickel Chrome plating for Automotive spare part and sanitary product for decorative and rust-proofing purposes or Copper, electroless Nickel and Gold plating for PCB and electronics for reflow, wire bonding, abrasive or connectivity purposes. Technology to develop those processes are constantly learned and developed to maximize productivity and minimize cost concurrently. Moreover, most of all plating processes have one thing in common that is the utilization of hazardous chemicals such as acid, based, cyanide, oxidizer, reducer, solvent, chelate or toxic metal in the process. To sustain in the industry, chemicals and machine process must be inadvertently innovated to stay competitive with the highly innovated mind set. Boonyongmaneerat. (2018) [3[ the

president of Thailand Electroplating Professional Network )TEPNET( stated that to develop Thai electroplating industry to be " The ASEAN electroplating industry leader", the electroplating industry itself must be highly effective, high level of competitiveness and sustainable in terms of innovation capability, dynamic capability by the proper and supportive organizational climate.

Working personal in electroplating industry manages to creating new technology by innovation capability due to the fact that organizations must innovate the administration concerning sustainable innovation development and growth. Administration nowadays is about advanced scientific technology management. The idea of adopting dynamic capability is to consider and utilize the organizational capabilities to be capable to response to external changes )Teece & Pisano, 1994( ]4[ and prevent the deterioration of the existing capabilities and skills ) Hall and Andriani, 2002( ]5[. By adoption of advanced technologies combining with business administration, organization is capable to create new knowledge through research and development process to be dynamic capability. The new dynamic capability is the innovation to drive )Barreto, 2010) [6] the organizational capability to systematically dissolve the problem and with high potential to realize gain the opportunities and make the market decision in the suitable time frame. Dosi et al., )2000( ]7[ said that dynamic capability is not only to create the chance for investment but the organization must also research and develop for the readiness of increasingly rapid competition. Organization must emphasis the importance of business cooperation and transaction and fulfil the operation with technology capability ) Tello-Gamarra & Zawislak, 2013( ] 8[ . Organizational Climate is the set of appeared behaviors of the organization. Burke & Litwin. )1992( ]9[ claims that organizational climate is specific and exhibits how workers acknowledge themselves about their working efficiency and their colleagues. The research showed that workers in both private and government organizations realized the climate of selfishness tends to commit corruptions ) Gorsira et al. 2018( ] 10[. Griffin. ) 2001( ] 11[ pointed that organizational climate is perception from working environment. Organization has positive climate in order to raise team motivation and effort. Positive climate gives support to productivity and drops turn over. Chang, Wu & Liu. )2018( ]12[ confirmed a success on sustainable development results in systematic business expansion without the limitations.

#### RESEARCH OBJECTIVE

To study the factors affecting the sustainability toward electroplating industry in Thailand.

#### **METHODOLOGY**

This research was the documentary research by using secondary data from document and related research to study, analyze and data synthesis to get the factor components.

#### LITERATURE REVIEW

Innovation capability means capacity to create new concept and new marketing opportunity by creating innovation based on existing resources and capacities )Hii and Neely, 2000(]13[. Innovation can be new sustainable products, processes with internally cooperative administration and culture adopting change as a fundamental practice) Teece, 2017(]14[. From literature review, innovation capability includes four observed factors 1( Product innovation is the incremental radical change for products and services. 2( Process innovation

is the incremental or radical change for production or delivery process. 3( Administrative innovation is the new practice incrementally or radically about organizational administration. And, 4( Technological innovation is the monitoring and assimilation technologies to create innovation.

Dynamic capability is the capacity organization apply existing skills and integrated new knowledge to innovate and adjust the organization to conform to internal and external changes. Organization can have strengthened and adaptive working process to business environment, economic capability, organizational administration, human capital and insight )Uriarte et al., 2018( ]15[. From this literature review, dynamic capability has four observed factors: 1( Adaptive Capability, 2( Innovation Capability, 3( Absorptive Capability and 4( Strategic Capability.

Organizational Climate is sets of conducts the organization to create innovation and positively inspires workers to achieve targets) Gorsira et al.) 2018(] 16[; Bahrami et al.) 2016(] 17[. From this literature review, organizational climate has 7 observed factor; 1( organizational structure, 2( responsibility, 3( warmth, 4( support, 5( reward, 6( standard and 7( identity.

Bergez.) 2013(] 18[ introduced the sustainability assessment by three attributes; 1( economic sustainability, 2( social sustainability and 3( environmental sustainability. Andersson and Lundberg. ) 2013( ] 19[ proposed the development method to measure sustainability in the respect of social, environment and economy. Axelsson et al. )2013( ]20[ exhibited the social and culture value creation in terms of planning social, culture and environment criteria. Ziout et al. )2013( ]21[ claimed that sustainability could be evaluated by three main directions which were economy, environment and social. Kusumaningdyah et al. ) 2013( ] 22[ said that sustainability is interchangeable between social, environment and economy. Borland et al. )2014( ]23[ pointed organization increased capability by developing economy, social and environmental sustainability. Stock and Seliger. )2016( ]24[ referred the participation of industry to remarkably create values combined by 3 dimensions; 1( economic, 2( social and 3( environment. Gast. et al. ) 2017( ] 25[ and Morioka and De Carvalho. ) 2016( ] 26[ cited that the components of sustainability were 1( economic sustainability, 2( environmental sustainability, 3( social sustainability 4( value 5( benefit and virtue and 6( performance. In summary, there is a mutual consent about the observed factors for sustainability. This paper can totally conclude that economy, social and environment are insignificant for the sustainability.

The factors found in literature review is further scrutinized to find correlation between factors and modeled to find out the most suitable for Thailand electroplating industry.

# 1. Innovation Capability Affects Dynamic Capability.

The research on 88 Indonesian telecommunication companies )Sasmoko et al., 2019( ] 27[ showed that dynamic capability positively affected leadership of digital innovation capability both directly and indirectly. The companies had the strength for dynamic capability tended to attain larger market portion and digital innovation had the crucial impact on the Indonesian telecommunication market trend.

Lan Li.) 2019 [] 28 [ studied on 298 Chinese SMEs and it has been found that the companies adopted social and environmental innovation was capable of increase dynamic capability by absorbing new knowledge and developing new customer centric products and services and finally having better business performance.

Rajapathirana & Hui. ) 2018( ] 29[ claimed that the studied on 379 senior managers working for insurance companies in Sri Lanka to find the relationship between innovation and dynamic capability toward the performance. The result showed that in the highly

competitive environment, the market and financial innovation turned Sri Lanka insurance companies to be more effective management and highly innovative.

Strønen et al. ) 2017( ] 30[ studied correlation between dynamic capability and innovation capability the result showed that dynamic capability caused the business absorptive to the unpredictable environment. Dynamic capability and innovation capability resulted in understanding and differences of problem and the new settlement

Giniuniene and Jurksiene. ) 2015( ] 31[ argued that dynamic capability were considered as organizational capability to transform organization in the unstable business environment and fully utilized to determine the new working parameters.

Žitkienė.) 2015 (] 32 [mentioned that dynamic capability generated service innovation, opportunity and customer demand. Proper resource management maximized competitive advantage. Service innovation could be diversified but it can be categorized into five dimensions; 1 (strategy, 2 (clients, 3 (knowledge, 4 (network and 5 (technology-orientation. Those dimensions differentiated dynamic capability in to continual service resource management and service.

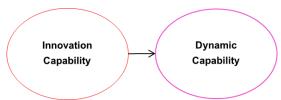


Figure 1. correlation between innovation capability and dynamic capability

# 2. Innovation Capability Affects Sustainability

Fernando et al. ) 2019( ] 33[ conducted research about correlation between environmental innovation and sustainable business. Service capability, service innovation and dynamic capability were the parameters for the analysis. The result showed that social and environmental responsibility of the organization led to positive relationship to community. The amiable activities by service innovation and environmental oriented policy and actions took part in the larger portion of concern to many organizations. The research scrutinized the concept of green business and organization by collecting 95 Malaysian green companies. By conducting green business, the result showed that; 1( ecological innovation led to superior sustainability, 2( the service innovation capability had more positive results, 3( service innovation tended to have more advantage to the company by differentiation and value creation. And 4( service capability could be the business strategy by being the barrier to the new entrant. In sum, ecological innovation for economy and service could be the crucial intangible resources and assist the long-term objective for competitive advantage and sustainable business development.

Adams et al.) 2016(] 34[ claimed that performance of sustainable development was not only limited in developed western countries, but the impact had also globally equal because changing national factors and culture could influence the attitude to sustainable initiative.

Wu et al. )2012( ]35[ cited that sustainability, competitive advantage, innovation for sustainability for business strategy are the most challenging for the sustainability facilitator.

Teece. ) 2007( ] 36[ studied 34 European companies developing sustainable innovation. The result showed that cooperative capability highly affected on innovation capability because cooperative capability indicated sustainably innovation capability and selection capability which were suitable depend upon each individual organization.

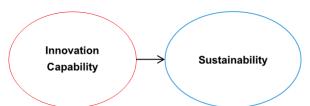


Figure 2. correlation between innovation capability and sustainability

# 3. Innovation Capability Affects Organizational Climate.

Shanker et al. )2017( ]37[ conducted the research on 202 Malaysian managements. The outcome showed innovative behaviors which were freedom, right to give opinion and challenge caused more creative reconciling climate and performance.

Bock et al. )2005( ]38[ proposed that rational conducts caused mental and psychological motivation for individual knowledge sharing and innovation.

Innovation absorption is caused and connected by the climate of knowledge management )IT based(, filing, using and creation )Chou, 2005( ]39[.

Liao, et al. )2004( and Liao, et al. )2003( ]40[ found out that colleagues working in positive climate tended to share knowledge and experience to other colleagues voluntarily and unconditionally.

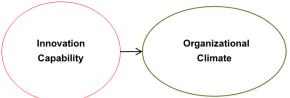


Figure 3. correlation between innovation capability and organizational climate

# 4. Dynamic Capability Affects Sustainability

The survey of Dynamic Capabilities for Sustainable Innovation (DCSI) on European enterprises showed that there were two types of results; 1) dynamic capability related to external connection (the building of sustainable innovation) and 2) organizational capability related to internal connection (Borland et al., 2017) [41].

The challenge for organization to be sustainable is to adopt dynamic capability to compete with the responsibility on environment (Liboni-Amui et al., 2017) [42].

Dangelico et al. (2017) [43] defined that dynamic capability for sustainable development was "the capability to integrate and identify organizational capacity and resource for environmental sustainability in the new product to support market change".

The important factors to achieve in applying dynamic capability toward sustainability are 1) conceptualization, 2) continuation, 3) risk management and 4) knowledge assessment (Beske, 2012) [44].

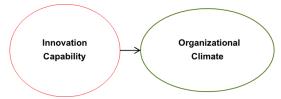


Figure 4. correlation between innovation capability and organizational climate

# 5. Organizational Climate Affects Dynamic Capability.

From the survey from 229 Israel companies, Fainshmidt & Frazie. )2017( ]45[ found out that climate of safety, resulted in trust and optimistically affected reskill capability. Dynamic capability was scattered among companies by focusing on supportive and sociable climates.

Fainshmidt & Frazier. )2016( ]46[ also found out that in 209 Israel trust directly correlated to competitive advantage. Trust augmented dynamic capability and competitive advantage.

DeCelles et al. )2013( ]47[ cited that change resulted in pessimistic behavior and worker's attitude to organization. However, change agent managed to remove undesirable climate because dynamic capability was facilitated to generate credible climate.

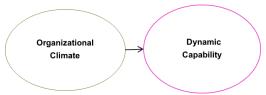


Figure 5. correlation between organizational climate and dynamic capability

# 6. Organizational Climate Affects Sustainability.

Moslehpour et al. )2018( ]48[ claimed that improving work satisfaction climate affected sustainability. Respect and obedience were confirmed to be positive climates to created work satisfaction.

The research of 204 middle management working in 932 hotels in 5 provinces of Saudi Arabia pointed out that Total Quality Management )TQM( positively correlated to organizational climate and sustainability. )Alharbi., et al., 2017( ]49[. Organizational climate significantly supported TQM and sustainability in the organization.

Team work climate affected to sustainability )Yang, 2016( ]50[. Supportive culture resulted in improving team behavior and finally sustainability.

Guerci et al. )2013( ]51[ studied 6,000 workers in 6 Europe nations concerning management for human resource based on ethic to created sustainability. The result showed that development human resource skill )such as recruiting or training( and opportunity pursuing )such as working design or worker participation( improved surrounding ethic and was a principle and mean to create motivation.

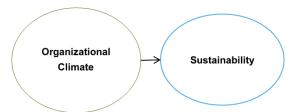


Figure 6. correlation between organizational climate and sustainability

#### **REDULT**

The result shows that factors affected sustainability toward electroplating industry in Thailand have 3 factors which are innovation capability, dynamic capability and organizational climate. By research paper review, the result shows that factors are positively in following conceptual framework.

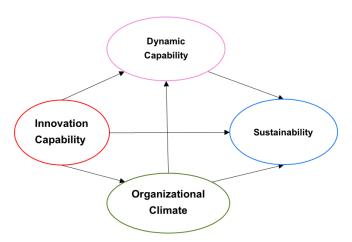


Figure 7. conceptual frame work of innovation capability, dynamic capability, organizational climate and sustainability.

#### **CONCLUSION AND DISCUSSION**

The literature review shows that factors affecting sustainability are innovation capability, dynamic capability and organizational climate. Documentary research reviewed points out that each factor affects optimistically and result in sustainability. Thailand electroplating can be undeniably developed with innovations, right climate of working and dynamic capability to achieve sustainability and capacity to compete in the global scale.

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I would like to express my sincere thanks to Suan Sunandha Rajabhat University for invaluable help throughout this research.

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# EVALUATION OF LINKAGE BETWEEN SERVICE QUALITY AND CUSTOMER LOYALTY IN MOTOR INSURANCE.

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#### **ABSTRACT**

In today's competitive environment, researchers and service marketers put great effort on developing customers' service loyalty in order to maintain competitive advantage. Motor insurance is a highly complex service consisting largely of credence properties, that is, service characteristics that are difficult for customers to evaluate even after purchase and use. Service quality has been identified as a key factor in differentiating service products and building loyalty. Today, each service provider is doing hard to satisfy their customers to match customer expectation with their service offering but customer's expectation keeps on going high. Despite the customer service emphasis and actions taken by the insurance industry, insurance companies still unable to recover selling and claims costs until several years of policy renewals and lose money if the customer cancels or switches service providers. Customer loyalty is part of insurance risk management, so monitoring customer loyalty will help insurance companies to lower the risk of policy cancellation by customers and allow them to develop a course of action to improve the overall operation of the companies and profitability.

This study examines the significance of service quality dimensions on customer loyalty in the motor insurance in Thailand. It is found that the structural model should compose of 2 main interrelated constructs as follows;

- 1. Service quality whose 6 indicators are tangibles, reliability, responsiveness, empathy and outcome.
- 2. Customer loyalty whose 3 indicators are cognitive loyalty, attitudinal loyalty and behavioral loyalty.

**Keywords:** service quality, customer loyalty, insurance industry, risk management, credence properties

#### INTRODUCTION

In Thailand, there are four main sectors in the direct insurance market, namely motor, marine, fire and miscellaneous. The largest sector with the highest net premium contributions is the motor insurance sector and this highest contributor has long been traced back to over twenty years. This is mainly due to poor public transportation causing anyone who lives in Bangkok, the capital city, needs to own a car. Moreover every insurance company sells essentially the same state-mandated comprehensive motor insurance policy providing a wide range of coverage, so the key area of competition is service quality provided to the insured. For services with substantial credence characteristics, a high standard of service delivery is necessary, but not sufficient to increase customer overall satisfaction (Powpaka, 1996). Even servicing their customer base with superior and professional service, many insurance companies are still not able to retain their customers and make only a marginal profit.

In recent years, service quality has been receiving considerable prominence in the literature because of its apparent relationship to customer satisfaction and repurchase intention. Service quality has been defined in terms of customer satisfaction as the degree of alignment between the customer expectation and perception of service received (Parasuraman et al., 1988; Gronroos, 1984). Ultimately the customer, is so determinative of what aspects of the service are the most beneficial. Today, service quality remains a critical issue in most service industries. For example, in the insurance industry, the key approach to differentiation by which an insurance company can distinguish itself from another is service before and after the sale of the policy especially claims service (Stafford & Wells,1996; Stafford et al., 1998). Service quality makes it possible to meaningfully differentiate between companies because insurance providers offer the same standard policies. Assessing the relationship between service quality and customer loyalty can help managers to better meet the needs of customer (Kumar & Srivastava, 2013).

This study investigates the critical factors for the success of customer loyalty in motor insurance in Thailand. The authors would like to examine the main linkage between service quality and customer loyalty. Service quality is expected to have a direct link with customer loyalty. The results will highlight the significant impact of service quality on customer loyalty and suggest managerial implications for Thai insurance companies in order for them to achieve customer loyalty.

#### **OBJECTIVES**

This study will mainly examine the following customer loyalty issues within the specific service environments of motor insurance:

- 1. To develop a measure of service quality consists of 6 components (tangibles, reliability, responsiveness, assurance, empathy and outcome).
- 2. To develop a measure of customer loyalty outcomes incorporating behavioral attributes (repeat purchase intention, exclusive purchase intention and switching intention), attitudinal attributes (affection, word of mouth, recommending and encouraging) as well as cognitive attributes (preference, first choice, price tolerance and willing to pay more).
  - 3. To examine the relationship between service quality and customer loyalty

#### **METHODOLOGY**

The study design used in this research was twofold. First, quantitative research was conducted with customers as participants. Then, qualitative research by face-to-face interviews with service providers, customers and specialists was used to illuminate various issues of previously identified, analyzed the differences perceptions between two samples and examined the means to narrow the exist differences. A questionnaire survey was used to collect quantitative data from motor insurance policyholders in Bangkok and vicinity. Customers, living in Bangkok and vicinity who held a voluntary motor insurance policy were surveyed. A total of 300 structured questionnaires were randomly distributed.

#### **RESULTS**

Research result found linkage between service quality and customer loyalty and 9 measures shown in Figure 1 and Table 1 as follows;

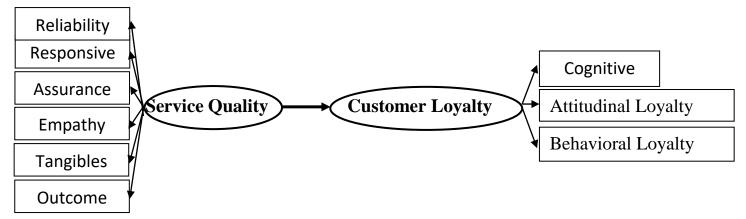


Figure 1: Proposed Research Model

Service Quality consists of 6 indicators, they are Tangibles, Reliability, Responsiveness, Assurance, Empathy and Outcome.

Customer Loyalty consists of 3 indicators, they are Behavioral Loyalty (repeat purchase intention, exclusive purchase intention and switching intention), Attitudinal Loyalty (affection, word of mouth, recommending and encouraging) as well as Cognitive Loyalty (preference, first choice, price tolerance and willing to pay more).

Table 1: Constructs and variables for the research model

Constructs	Observable Variables		
Service Quality	1. Tangibles and Technology		
	2. Reliability		
	3. Responsiveness		
	4. Assurance		
	5. Empathy		
	6. Outcome		
Customer Loyalty	1. Cognitive Loyalty		
	2. Attitudinal Loyalty		
	3. Behavioral Loyalty		

#### CONCLUSIONS AND FUTURE WORK

The study identified linkage between service quality and customer loyalty and found 9 measures in terms of service quality and customer loyalty as follows;

- 1. According to the researches of Parasuraman et al. (1988), Gronroos (1984), Brady & Cronin (2001), Kang & James (2004), Tsoukatos (2007), Gizaw (2013), Nithyanandam (2015), Fattah (2016) and Sunday (2018), service quality in motor insurance industry should consist of 6 indicators, they are Tangibles, Reliability, Responsiveness, Assurance, Empathy and Outcome.
- 2. According to the researches of Gremler (1995), Zammit (2000), Jones (2003), Rai & Srivastava (2012), Taghipourian & Bakhsh (2015,2016), Srivastava & Rai (2018) and Nguyen et al. (2018) customer loyalty in motor insurance industry should consist of 3 main indicators, they are Cognitive Loyalty, Attitudinal Loyalty and Behavioral Loyalty.

Though there have been many approaches to the measurement of the factors influencing customer loyalty, this study could benefit other financial service companies to gauge and enhance their customer loyalty level with improved service performance. This study will provide insights for management practice on how to cultivate customer loyalty, as well as how to maintain and improve customer loyalty by improving service quality. The data in this study were collected from only the source of respondents in Bangkok, the capital city of Thailand and vicinity area, thus the resultant model of customer loyalty can attempt to use other sampling subjects in provincial areas as well, so as to investigate the research question if there is any difference on the impact of customer loyalty in different areas with different norm and social contexts.

This study identified that customer loyalty is composed of three distinct components, they are cognitive loyalty, attitudinal loyalty and behavioral loyalty. Thus, the results of decomposing customer loyalty into three distinct components provide service managers an idea that loyal customers can be divided into three categories. Thus, service managers can identify the characteristics of each category in different phases and then employs different marketing strategies for capturing such kind of loyal customers.

The assessment of customer loyalty also provides useful information to the service managers in terms of identifying the segment of their own loyal customers in different service settings such as hotel and banking service. In effect, no matter what nature of services, all may share the same key to success by carefully retaining the loyal customers through effective segmentation and quality evaluation.

# **ACKNOWLEDGEMENT**

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# DETERMINANTS OF CUSTOMER LOYALTY IN LOGISTICS SERVICE PROVIDER.

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#### **ABSTRACT**

Logistics service providers recognise the importance of service quality in outsourcing relationships. However, while the continuity of many companies outsource activities to improve operational efficiency and strengthen focus on core competencies. Logistics outsourcing pervades multiple functions, such as warehouse, transportation and value added service. The purpose of this study is to further the understanding of customer loyalty in logistics service provider relationship between logistics service provider companies and their customers. Which in turn is examined empirically using literature review finding can be generate determinants of customer loyalty in logistics service provider are 1) Service Quality 2) Price Satisfaction 3) Relational satisfaction 4) Proactive improvement 5) Service recovery 6) Trust and 7) Commitment.

The result is useful for companies to adopt both of customer and logistics service provider. The customer point of view can concentrate to know criterial in logistics service provider selection. Meanwhile logistics service provider understands customer expectation and focus on determinates that affect to customer loyalty.

**Keywords**: Customer loyalty, service quality, logistics service provider

# **INTRODUCTION**

The outsourcing of logistics activities to third-party logistics service providers, 3PL has now become a common practice. The commonly known drivers for outsourcing are needs of the organizations to concentrate on core competencies, cost reduction, development of supply chain partnerships, restructuring of the company, success of the firms using contract logistics, globalization, improvement of services and efficient operations, etc. One of the most important reasons for outsourcing is the capabilities of the providers to support their clients with the expertise and experience that otherwise would be difficult to acquire or costly to have in-house. The most common outsourced activities are warehousing, outbound transportation, customs brokerage, and inbound transportation. Keeping in view the growing trend of logistics outsourcing, many providers are now offering a variety of services. These services mainly involve business-to-business relationships, where not only the user is a critical stakeholder but also his customers who are directly affected by the quality of service of the provider. Therefore, the user must exactly identify what it needs from the provider.

One of the most important challenges faced by organizations in today's cut throat competition is not just getting business but is on how to maintain the long term sustainability. The need, hence, to focus on winning customers' repeat patronage and maximize profit has increased manifold. This paper focus to study factors responsible for customer retention, such as customer satisfaction, commitment and trust, and their relationship with customer loyalty and repeat purchases. This study has focus on the drivers and antecedents of customer loyalty

especially with reference to 3PL (third party logistics) outsourcing relationship existing between the customers and their logistics service providers.

The competitiveness of LSPs will also depend to a large extent on their ability to add value to the bottom line of their clients. LSPs can do that effectively through co-operating with their clients, learning their business practices and introducing innovations, all with a view towards improving the performance of logistics service providers and keep going on customer loyalty.

Customer loyalty has increasingly been acknowledged to be a means for achieving success in long run since it takes time, effort and money to find new customers and sustain business with them. Obtaining a new customer is more expensive than retaining an existing one, and a firm's long lasting sustainability in a market is progressively determined by its capability to build a huge base of loyal customer and sustain for longer duration. Focusing on attaining customer loyalty have become equally important as achieving strategic or financial objective. Building loyalty with key customers was once considered as competitive tool to win over the competition, but today it has turn out to be an essential requirement to survival of a firm.

Performance of a firm is greatly affected by customer loyalty which is considered as a source of competitive advantage. The higher customer loyalty in service firms leads to increased revenue, reduced customer acquisition costs, and lower costs of serving repeat purchasers, leading to greater profitability. The degree of satisfaction that customers get from a service is a collective impact of the service attributes versus its cost. One of the important determinants of customer satisfaction is service quality. But acquiring competitive advantage by providing a service with outstanding quality in today's competitive markets is difficult since all of them are striving to gain greater market share, service quality is becoming almost indifferent. Moreover, amazing service speed can be achieved without much difference in price. Therefore, firms can, achieve a higher and positive impact on customer satisfaction by providing exceptional and high level of logistics services. Since high levels of logistics services are difficult to be copied easily, it can successfully be used as a core competency and to develop a sustainable competitive advantage.

#### LITERATURE REVIEW

# 2.1 Definition of third party logistics

With the growing and developing of the outsourcing, third party logistics (TPL) companies are gradually on the rise and prosper. More and more logistics companies choose to enter the third

party logistics business to become TPL providers (Hertz and Alfredsson, 2003). According to Lieb (1992), third party logistics means that the companies use other organizations to finish the logistics activities which originally should be responsible for itself. Lieb also expressed that the third party logistics can hold the whole logistics process or select some parts of activities. The third party logistics service companies have neither ownership of goods nor the duty for selling and buying for the goods (Vasiliauskas and Jakubauskas, 2007).

For the services that provided by the third party logistics companies, Berglund et al.(1999) defined that on the behalf of a shipper, the logistics service providers finish a series of logistics activities "at least management and execution of transportation and warehousing" called third party logistics. In addition, the other services could be included like warehousing and inventory management, information tracking and tracing, installation and packaging of products, even supply chain management (Marasco, 2008).

Compared with basic logistics activities, third party logistics activities encompass more service functions which can meet more customized products. From a long-term perspective, third party logistics can bring a win-win relationship between the thir party providers and customers (Murphy and Poist, 1998).

So definition of third-party logistics mean that a third-party business is used to outsource logistic services. These services can include all activities that involve management and the various ways an enterprise moves resources from one location to another.

# 2. 2 Third party logistics provider

The growth of advanced logistics services from customers has caused growing competition pressure for third party logistics providers. More and more TPL providers try to have strategic development by developing and improving the relationship with customer. Hertz and Alfredsson (2003) put forward that the developments of service from TPL providers and the benefits to customers are depend on two dimensions. One is how to balance the resources among several customers which can be seen as the problem solving general ability. Another is customer adaptation which means how to adapt individual customer.

According to these two dimensions, third party logistics providers could be summarized as four types: standard third party logistics provider, service developer, the customer adapter and the customer developer. Standard third party logistics provider is the most basic provider form. These companies provide the most basic functions of logistic activities like picking, packing, distribution and warehousing. The service developer provides the customers value-added services like specific packaging and tracking and tracing. The customer adapter, as the name implies, the companies will emphasize the request from the customers, almost totally take the control of all the logistics activities for the customers. The customer developer is the third party logistics provider which reaches the highest level in process and activities. It is often responsible for the whole logistics activities of customer. Hence, the integration with customer is very high (Hertz and Alfredsson, 2003).

# 2. 3 Drivers of logistics outsourcing

As the importance of logistics out-sourcing is rising in business operations, more research are carried out on identifying its drivers. The main reasons of outsourcing logistics functions to third parties are the need to develop competitive advantage by focusing on its market offerings and to develop strategic value by focusing on core businesses and reengineering decisions (Hill 1994, pp. 28-30, Lieb 1992, p. 29, and Sheffi 1990). However because of globalizing, gaining competitive advantage has become more and more difficult. Globalization has been regarded as the most important driver of logistics outsourcing (McCabe, 1990; Whybark, 1990; Bovet, 1991; Cooper, 1993; Fawcett, Birou and Taylor 1993; Trunick, 1989; Foster and Muller 1990; Sheffi, 1990, Byrne, 1993, Rao, Young, and Novick, 1993; and Sum and Teo, 1999). Another driver of the logistics outsourcing is just-in-time (JIT) and the emergence of new technologies.

Reviews of numerous relevant literatures reveal other important reasons to outsource. For example, financial considerations, i.e. the reduction of logistics costs, the variabilization of fixed cost, and the reduction of capital employed, are the most important reasons to outsource, while performance-related like speed of delivery, lower damage ratio, timely delivery etc., also matters. Several researchers observed cost reduction, service improvements and efficiency, and focus on core competencies as the primary reasons for outsourcing logistics functions (Boyson et al 1999, Maloni and Carter 2005). In order to reach these objectives, logistics outsourcing can be witnessed at different levels, both in terms of range of logistics activities to be outsourced and degree of integration between the 3PL and the buyer of the service.

Many factors may impact the role that 3PL providers play on customer operations and strategies. Bolumole (2001), for example, identified four factors that determine the supply chain role of 3PL providers:

- 1) the competitive strategic orientation of the outsourcing organization that can impact a firm's logistics strategy;
  - 2) the focal firm's perception of the 3PL role on its logistics strategy;
  - 3) the nature of the 3PL-customer relationship (adversarial versus collaborative), and;
  - 4) the extent to which logistics functions are outsourced.

Rabinovich et al (1999) in their survey found that firms commonly club transactional and physical functions of their inventory and customer service areas, in order to achieve economies of scale (efficiency) and improve customer service levels without committing substantial amounts of financial resources.

Regarding the process of outsourcing, Sink and Langley, Jr (1997), developed a framework to guide industrial buyers with regard to the purchasing process of third-party logistics services. It is given in five steps:

- 1. to identify need to outsource logistics,
- 2. to develop feasible alternatives,
- 3. to evaluate and select the supplier,
- 4. to implement the service, and
- 5. to assess the ongoing service.

# 2. 4 Customer loyalty

Customers are important stakeholders in organizations and their satisfaction is a priority to management. Customer satisfaction and loyalty has been a subject of great interest to organizations and researchers alike. In recent years, organizations are obliged to render more services in addition to their offers and become an aspect of customer loyalty. In both B2B and B2C markets customer satisfaction is usually associated with customer loyalty, which can be understood as a customer's attachment to the goods or services of a particular company. It can also be examined from two perspectives: behavioural and attitudinal (Lao et al. 2011). According to the first perspective ("purchase loyalty"), loyalty is manifested by the intentional (or unenforced) repurchasing (retention) or extension of purchasing (expansion) from the same company. The second perspective ("preference loyalty") perceives loyalty as a consistent

readiness to purchase goods and services from a given company despite various stimuli coming from competitors, including encouragements to change provider (Oliver 1999), as well as recommending that company's goods and services to others (referral). Singh (2015) proposed a third (composite) perspective that integrates these latter two perspectives. According to Cichosz (2010), a comprehensive approach to customer loyalty requires that, in addition to the aforementioned aspects, other elements must be included, i.e. competition in the industry, availability of alternatives, and customer willingness to overcome possible difficulties.

True loyalty to a service provider is the consumer's strong desire to interact/do business with a particular service organization, resulting from high customer satisfaction, emotional commitment, and sustained repeat purchase behavior (Gary J. Salegna, 2009).

In order to identify relevant determinants of customer loyalty of David L. Cahill (2007), a thorough review of marketing and logistics literature was conducted. Overall, the approach chosen by Wallenburg (2004) proved most appropriate also for this study and was therefore adopted in a modified form. As a result, nine factors were surmised to be of particular relevance in the context of relationships between LSPs and their customers. These are service quality, price satisfaction, relational satisfaction, proactive improvement, alternatives, fairness, affective commitment, personal trust, organizational trust.

# RESEARCH METHODOLOGY

Author reviewed secondary data from the existing literatures to describe the importance of service quality, customer loyalty and determinants of customer loyalty in logistics service provider.

# **RESULTS AND FINDINGS**

This section discusses the results and findings of the literature review and findings determinants of customer loyalty in logistics service provider as table 1.

Table 1 Determinants of customer loyalty in logistics service provide.

Customer loyalty	Huma, et al. (2020)	Saura I.G., et al. (2008)	Jari Juga, et al. (2010)	Francis Buttle, et al. (2001)	Pedro Simões Coelhoa (2012)	ζ Cahill, D. L. (2007)
Service quality	✓	✓		✓	✓	✓
Price satisfaction	<b>√</b>	✓			✓	✓
Relational satisfaction			✓	✓	✓	✓
Timeliness- satisfaction		✓	✓			
Proactive improvement		✓	✓		✓	✓
Alternative	✓		✓	✓		✓
Trust	<b>√</b>			✓	✓	✓
Commitment	<b>√</b>	✓		<b>√</b>		✓
Service recovery		✓	✓	✓		
Service Customization			✓		✓	
Fairness	✓	✓				<b>√</b>

#### **CONCLUSION AND DISCUSSIONS**

For identifying the relevant determinants of customer loyalty, a detailed review of logistics and marketing literature was carried out. Finally, eight factors were presumed to be the relevant drivers of customer loyalty. These drivers are also presumed to exhibit certain relationships between LSPs and their customers, finding can be generate determinants of customer loyalty in logistics service provider are 1) Service Quality 2) Price Satisfaction 3) Relational satisfaction 4) Proactive improvement 5) Service recovery 6) Trust and 7) Commitment.

There might be other factors not taken into consideration in the present study but can be assumed to affect the intention of customers to outsource additional logistics activities to the currently most important LSP, for example strategic outsourcing considerations. Hence, future studies should explore additional determinants of loyalty dimension.

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# A STUDY OF LOCAL CUISINE THROUGH THE SHORT FILM, SALAYA DISTRICT, NAKHON PATHOM PROVINCE: SUAN SUNANDHA RAJABHAT UNIVERSITY.

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This research was aimed to study the lost local cuisine in Salaya District, Nakhom Pathom Province through the short film. The research was the qualitative research by conducting the interview with 2 elderly persons in Salaya District. The findings revealed that Bon Curry, Frog Salad, Banana Blossom Salad were the antique local cuisine and lost in the daily life. A study of the lost local cuisine through the short film, Salaya District, Nakhom Pathom Province interfered a story of lifestyle, belief and recipe with Thai herbs, it revealed that Salaya District was located nearby Mahasawat Canal and a belief of Bon Curry which made a cooker and eater feeling itch was false, a cook knew how to remove its calcium oxalate before cooking with Thai herbs for such roasted chilli curry, boiled fish and kaffir lime.

**Keywords:** Local Cuisine, Short Film

#### INTRODUCTION

Suan Sunandha International School of Art has been assign from The Suan Sunandha Rajaphat Universityto serve the policy in creating an academic service project to solve poverty In the fiscal year 2020. To reduce the gap between the rich and the poor problems and to resove the problems of low income people in the community, Moo 1 Salaya In which the main plobrem are the poor don't have ability to meet the standard living such as a Hygienic house. Almost of them are homeless and living in a shelter on the edge of the railway. No source renting space to build a house and don't have a living area inappropriate environment for having a good occupation. There basic income are from collecting garbage for sale, washing dishes etc. By that issue they could not meet the living expenses. In the way of developing there living standart we have found that the plobrem are the elderly being left at home and still have to work to support themselves because the children move to live in the city or working in other locations, etc. They have some great working skill or some good old food recipes but without the product developing skill and a good communication tools they can't create it up as a bussiness and earn income for living. Also the plobrem of the elderly being left at home and still have to work to support themselves because the children move to live in the city or working in other locations, etc.

For the said reason Suan Sunandha International School of Art. Opened a learning source called "Learning Resources of the College of Cinema" By starting with a group to produce community products and develop into packaging for sale to generate income for the community causing the elderly in the community to generate income and create mental value for the community. From the study reserch by interview with the community members the outcome that Salaya district Nakhon Pathom Province has an interesting history, found that "Salaya Subdistrict" is an area with a long history. Also have an unique in both history and culture which used to be a prosperous city because it is adjacent to the ancient city of Nakhon

Chai Si From the Sukhothai period to the capital city Trade and exchanges for religion and culture, especially rice, fish, food is abundant But now For example, Bon Curry, which is currently unavailable And ancient food that has been lost or converted from ancient food The researcher aims to study the local food education to create additional income for the community, Village 1, Salaya, Nakhon Pathom Province. In order to develop into a product of the community and generate additional income for the community Create community products that are diverse and unique, belonging to Moo 1 Salaya, Nakhon Pathom Province.

#### LITERATURE REVIEW

Asst. Prof. Dr. Witthaya Makkam (2019). The research on the development of the standard of Suan Sunandha recipe Health-oriented to the world market. Which makes this era people know, and also can access and get to know more about the history of royal palace recipes stories from the past and make it come back to life in this digital age. Caused by the work of a research team from Suan Sunandha Rajabhat University That brought some food menus from Kaew Chao Jom Restaurant, Wang Suan Sunandha Hotel come through research and experimental analysis to make food easier to eat and cooked according to standard recipes in short film studies about local food. Nowaday the way of communication has been change also the way to keep a food recipes too. The research had study from the signature local dish (Smart SME TV) and found that the method of simple storytelling is easy to understand and has charm from the community.

#### 2.1 Study method

Local food of Salaya Subdistrict. Collecting basic information from interviews by filmmaking students. Students have visited the area between 14 to 15 March 2020 to collect data for education in the Moo1 Salaya community area, Nakhon Pathom province. Therefore Study in detail about local food, history process of cooking intimes. From the study it can not be state cleary that what is and olden food from Salaya district. Therefore, form the collecting data by interviewing people who have grown up since childhood In Sayala Sub-district, consisting of 4 people, providing information that In general, the ancient food that is routine found naturally that occur along the canal, such as yam yak, banana, frog curry, bon curry, banana curry, which raw materials can be obtained from the community but the process of cooking is different.

In this chapter, data is compiled and calculated by synthesizing the work of 5 students in filmmaking academic department about local food education to create additional income for the community, Moo 1, Salaya, Nakhon Pathom Province. Study from an interview about food in Salaya, Nakhon Pathom Province, as basic information. Study from the production process to be synthesized into a poster and used to write non-fiction screenplay about Curry Bon <a href="https://drive.google.com/file/d/1KOA46oxJy9aJI3Lp\_fT\_PbjFL1tlunF3/view?usp=drivesdk">https://drive.google.com/file/d/1KOA46oxJy9aJI3Lp\_fT\_PbjFL1tlunF3/view?usp=drivesdk</a>



# 2.2 The information was synthesized and compiled into knowledge labels about Bon Curry.

The objectives of filmmaking for education are to create more income for the community Moo 1 Salaya, Nakhon Pathom Province, when screened, has led to the dissemination via online media and retention, satisfaction assessment.

Writing a script, defining a short structure and writing a story outline after we have researched the information before writing it as a treatment. It is a continuous process from conceptualization to content analysis. Until obtaining the main points and minor issues and then writing them into chapters Which determines the order of audio and video presentations. In order for the viewers to receive the content according to the specified objectives which specify the picture and sound clearly In addition, the script also transmits the process of creating the program into letters and various symbols in order to convey the meaning to the co-producers. And proceed with production according to the duties of each person.

Filming process are aiming on elderly, there is no necessary to have a chapter to explain how to make components, scales, and beliefs because the target group will feel uncomfortable and difficult to pull naturally in practice.



#### RESEARCH METHODOLOGY

## Samples and data collection

Local food education to create income for the community. 1 Salaya, Nakhon Pathom Province, has steps of

Operation step by step

- 1. Study of relevant research theory papers
- 2. Studying from an interview about food in Salaya, Nakhon Pathom Province
- 3. Study from the production process From the survey research survey results by making online news about satisfaction. https://docs.google.com/forms/d/1MgiLxhptkUU2iZzGvnvUuGc09L8J5L7T7tW06fESg/edit

#### **RESULTS AND FINDINGS**

The descriptive analysis of the empirical data revealed that the complete editing was found that

The 1st editing guide Presentation 1 has recommendations from teachers Tonhpon Sapnirun. Eternal wealth as follows

- 1. Change the song to be more soft tone.
- 2. Changing the scene, do not remove the shift. Use as other forms, look smoother than this.
  - 3. When telling the component, add the part to show as well.
  - 4. Put on the subtitles because sometimes the part doesn't sound well.
  - 5. In the out-of-focus range See if there are other feet.

2nd montage suggestion Presentation 2 has recommendations from teachers Tonhpon Sapnirun

- 1. Change the song to be more soft tone.
- 2. Cut out the image

How to request the advice of Teacher Theerapong Sareesamran on solving sound problems. Students who are in Year 1 cannot solve the sound problems.

From the survey research survey results by making online news about satisfaction. <a href="https://docs.google.com/forms/d/1MgiLxhptkUU2iZzGvnvUuGc09L-8J5L7T7tW06fESg/edit">https://docs.google.com/forms/d/1MgiLxhptkUU2iZzGvnvUuGc09L-8J5L7T7tW06fESg/edit</a>

#### **CONCLUSION AND DISCUSSIONS**

From research, studies, local food education to create additional income for the community, Village 1, Salaya, Nakhon Pathom Province. I then studied the process of production to be synthesized as a poster. And brought to write a feature film script, the documentary film Curry Bon has the following results

Most of the respondents who responded to the survey were Nakhon Pathom Province, 154 people, accounting for 64.16%, followed by 30 people, 12.50%, 25.4%, 10.41 High number of people 16 people, representing 6.66% and the least unknown, 15 people accounting for 6.25%

Most of the respondents do not know the local food, Salaya Subdistrict, Nakhon Pathom Province, 178 people, representing 74.16%, followed by enough to know 30 people, representing 12.50% and rarely known, 14 people accounting for 5.83%, knowing the number 10 people accounting for 4.16% and the least known number of 8 people, accounting for 3.33%

The majority of the respondents were the most satisfied with 165 (68.75%), followed by the highest satisfaction (51.25%) and the lowest (24) with moderate satisfaction (10%).

Most of the respondents did not know the 145 curry at all, accounting for 60.41 percent, followed by less than 40 people accounting for 16.66 percent and 32 people accounting for 13.33 percent and enough to know the number of 18 people as a percentage. 7.50 and know the most, the least number of 5 people, equal to 2.08 percent

Most survey respondents were satisfied with the method of storytelling. Kaeng Bon in the documentary film "Kaeng Bon" the most, 154 people accounting for 64.16%, followed by extreme satisfaction of 46 people, representing 19.16% and the least moderate satisfaction, 40 people accounting for 16.66%.

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# CAUSAL FACTORS AFFECTING SERVICE INNOVATION OF SERVICE BUSINESS

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#### **ABSTRACT**

This research article aims to study the causal factors affecting service innovation of service business. The research methodology is documentary research using secondary data from various research documents including the literature review for study, analysis and synthesis to obtain causal factors affecting service innovation of service business. The findings revealed that that there were 11 factors affecting the service innovation comprising;

- 1) marketing orientation, 2) entrepreneurship orientation, 3) service co-creation,
- 4) information technology (IT), 5) human resource practices, 6) service orientation,
- 7) organization & environment, 8) competitive learning, 9) management experience,
- 10) strategic planning and 11) customer orientation.

**Keywords**: Service Innovation/ Service Business/ Service Business Management

#### INTRODUCTION

Currently, an innovation has been extensively applied in service sector or so-called "service innovation" that relies on interdisciplinary requiring diversified knowledge skills, exploration and application to create designing, problem-solving through skills in marketing, financial, public relation, designing, human resource management, cross-cultural relationship management, effective communication, corporate risk management, corporate social responsibility (CSR) and risk management (Jamieson, 2016). Nevertheless, the service innovation will be arisen as a result of business technology development including an increase of orientation on customer demand leading to a development to deliver service for more customer satisfaction.

Consequently, applying of updated technology for business management shall then help business firms to be modernized and capable of integrating technology with daily working and all data gained from such an innovation can be utilized for marketing analysis and administration cost control whereas the economized budget can create business advantage in order for efficient management, administration cost control as well as customer satisfaction which shall contribute to business sustainability in due course.

#### LITERATURE REVIEW

### 2. 1 Meaning of Service Innovation

B Nowadays, the creative ideas have incurred in business operation especially in a process of product and service development or various new activities conducted to meet diversified customer requirement. In each an organization, an integration of management capability including customer relationship have been conducted to create service value that leads to the "service innovation" and as per Karndee Leopairote (2009), stating that the

service innovation means bringing new ideas and guideline of working that have been considered systematically and analyzed in view of customer needs to be further applied as a guideline of different service offerings for customer satisfaction whereas in the study of Naruedee Jiyaworanunt and Phumporn Thammasatitdech (2012), it was stated that it was the intention concept to fully respond to customer needs, improve and increase higher benefit of service businesses. It could be explained in a form of process delivered to customers and also correspondences between a servicer and its customers in which customers played role as influencers towards such a process improvement. Additionally, the study of Walailuck Ratanawong, Nuttida Suwanno and Teerasak Jindabot (2014) stated that it was the creative idea in a process of new product and service development or new activities to respond to diversified customer needs through an integration of organizational management capability and establishment of customer relationship for service value creation, same as stated in the study of Walailuck Ratanawong (2014) stating that it was a presentation of new products and processes or better improvement of existing product and process under a new operation, activity arrangement and management method to obtain new product and service in responding to customer needs and satisfaction as highest target of the service. Moreover, as per the study of Makoto (2012), it was defined and assumed the meaning of "innovation" that 1) the service innovation was upgrading an efficiency and in the meantime increasing an effectiveness of service level and value creation, 2) not only offering diversified service or adding high value but also emphasizing service offering and adjusting a proper balance could be conducted on equal basis, 3) the service innovation should avoid only one-way relationship from a service provider to its customers but both should co-create proper value in which a human was a beginner, 4) it was the idea of linking and combining between an industrial sector and service business for responding to human's desire from "needed thing" to "needed matter", 5) it was an upgrading of inner circumstance under such a service innovation which was not limited to not only for a producer itself but also linked to an increase of quality of human life and entire society, 6) it was an arrangement of moving to continuous self-development society and full resource-recycling society, and 7) it was an integration among activity, human wisdom and feeling and proper science and engineering solution. As per Makoto's summary, the service innovation was the new service transformed from existing one and incurred under the concept of having a human as a beginner with recognition of social structure factor of the existing system and emphasis on human. In view of Schneider (1999), his study stated that it was understanding the result of change process or process itself through products produced by immaterial arisen during an interaction between a service user and a service provider and the difference of an external factor was integrated with the difference of an internal factor based on organizational characteristics and personnel levels, whereas the study of Van Ark (2003) stated that it was a conclusion of service for business to develop an interaction with customers regarding service delivery matter. However, the study of Drejer (2004) was of the view that it was the successful development of new service or product including innovative activities at all levels with requirement of improvement and development, same as stated in the study of Usui (2009) revealing that it was upgrading an efficiency in parallel with increasing an effectiveness of service level and value creation.

As per the above- mentioned definitions, it can be concluded that the service innovation means applying idea, guideline of working or modern technology to respond to customer needs and create their satisfaction. This has been deemed as one of strategies that a business integrates its business process with IT and communication knowledge to create a practical organizational innovation leading to process design producing new offerings and value for consumers or customers. The service innovation also emphasizes on business value

creation towards customers with more remarkable competitiveness including building customer impression in terms of before-duration-after sales service.

# 2. 2 Significance of Service Innovation

As currently there have been disruption in many aspects especially in digital aspect threatening business growth trends and causing a change to original business operating models. A business firm is therefore required to explore and adjust its business operating model not to be outdated or closed down in the near future. The service business has grown continuously for many years, the difference development and competitiveness have been then conducted to respond to customer needs particularly during current digital disruption. Nevertheless, a business firm needs to focus on utilization of digital technology to be in line with its customer needs with available information preparedness to create an alternative innovation for them at all time; for example, a rapid growth of lodging business as Airbnb or logistic service business as Uber, etc. These successful businesses may start in a form of small ones but create new challenge which is different from an originate business operating by placing an importance on service development to which most of large ones usually pay less attention and probaby lack of development agility due to their business scale. The service development is therefore as significant as the product development. (Phrut Thesjeeb, 2018).

In conclusion, the service innovation is very significant for current business operating and also practical for an organization. It is needed to be created systematically. Service science is a crucial knowledge in advising the beginning to create thorough and diversified ideas that shall contribute to the service innovation creation in this current age. The service innovation shall be created based on ICT technology and produce actual and diversified valuable service offerings.

#### 2.3 Model of Service Innovation

The innovations in service sector can be in varieties of different platform and as per classification of Christopher Lovelock and Lauren Wright, there are 7 platforms (Adul Jaturongkagul et al. translators, 2004) as follows:

- 1. Major Service Innovation which means creating of an innovation in reproducing major products usually covering a specification change of a new service as well i.e. a change of giving a parking service card by a machinery in replacement of a personnel in which a service user needs to handle his self-service. This is an effective product creation through technology application and changing of service nature to be more accurate, modern and cost saving.
- 2. Major Process Innovation which comprises using of a new process for major product delivery in the market by new method accompanied with new additional benefits i.e. opening of modern bachelor & master degree courses through on-line learning or evening courses, rental of facilitators from which students can gain most benefits as much as possible, competitive offerings in view of studying period and learning cost or development of robbery prevention tools controlled and ordered by a smartphone.
- 3. Product Line Extension which is an addition to production line to increasingly fulfill customer needs i.e. additional after-sales service or maintenance reminder to maintain regularly efficient product usage to expand production line, be professional and respond to customer needs.
- 4. Process Line Extension which is an innovation creation of sub-line by new methods for current product delivery and distribution to be more convenient for service access. It is a new experience created for existing customers and also motivate new ones for more service access i.e. a service of using a virtual program for internal building space

management to expand selling process, increase confidence in products and meet customer needs.

- 5. Supplementary Service Innovation which concerns about an increase of new service compositions to support its existing major service including improvement of existing supplementary services i.e. more parking space in department stores or allowed credit card payment, etc.
- 6. Service Improvement which can be mostly seen and gradually changed in current service operations i.e. special designed seats of movie theatres for more customer convenience.
- 7. Style Changes: It is an easiest innovation particularly changes in process or operation since it is tangible and exciting and helps motivate employees as well i.e. new shop painting, new working uniforms, adjustment of new employee service role, etc.

#### 2. 4 Platform of Service Innovation

Considering the platform of innovation applied in business operation, it can be divided into 3 platforms; product innovation, process innovation and service innovation. In particular, the service innovation is the innovation development and improvement of pattern and process emphasizing on facilitation and rapidness of different service access for customer satisfaction. (Fig 1)

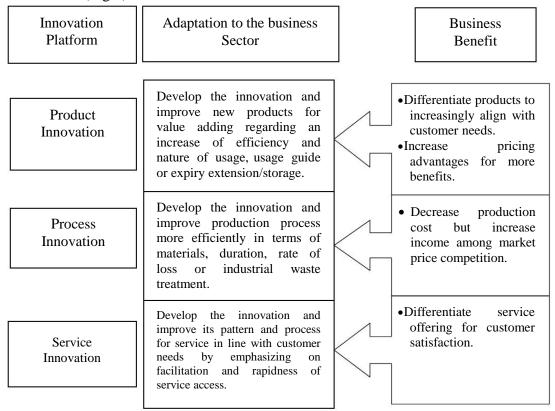


Fig. 1 Innovation Platform Applied by Entrepreneurs for Business Operating

Source: Kasikorn Research Center as referred in United Information Co., Ltd. (2012)
According to Picture 1.1 above, the integration of knowledges which are different based on each innovation platform cannot be foreseen how the products at the final stage shall be and which method should be applied for success. Thus, the innovation management is required to change uncertainty to knowledge through using existing committing resources.

#### 2. 5 Framework of Service Innovation

The framework of service innovation which can be applied (Ministry of Science & Technology , 2013) comprises :

- 1. Information: It means a purpose or target of value expected from the innovation outcome including limitation and condition relevant to service development.
- 2. Process: It is a service stage by a servicer and process relevant to service access that are the important elements of the service innovation especially in current rapid growth of ICT disruption. The service innovation is usually created based on ICT application especially internet and portable tools.
- 3.Technologies: It is a supporting part of service process and value creation including a linkage for combination of both internal and external resources of an organization to create offerings and value.
- 4. Environment: It is a consideration of composition and data relevant to service and service users for effective co-creation of value between both parties including environment that is essential for designing offerings and service system encouraging customers to fully create value.

Service Research and Innovation Institute (SRII) Asia Summit (2013) concluded that the service innovation creation shall rely on a framework as a basic principle and such a framework or Building Block of the service innovation comprises 4 elements as shown in Fig 2.

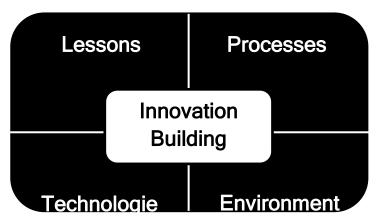


Fig 2 Building Block of Service Innovation

Source: Ministry of Science & Technology. (2013). Service Research and Innovation Institute Asia Summit 2013. Retrieved from Http://ictandservices.blogpost.com/2013/09/method-model-and-tool-1.html

#### 1.Information

Information in this context means a purpose or target of value expected from the service innovation outcome including condition, limitation or in summary, it is a question for finding out solutions; for example, car service for traveling. This type of data means service nature, relevant condition of service provided for a user such as car location identification, automatic door opening or starting by a special electronic car key, convenience of payment system, etc. and these can be deemed as a specification of offerings to be created.

### 2.Process

It means a service provider's service stage and process of service usage by a service user. It is essential for the service innovation and also valuable intellectual property since it is arisen from new ideas considered as an innovation. In particular, during the current rapid

growth of ICT development, the service innovation has been usually created based on utilization of ICT especially broadband internet and wireless portable tools.

### 3. Technologies

To support a process that is one part of offerings for value creation including connecting both internal and external resources of an organization to co-create offerings and value, it needs to rely on ICT service system that can play a vital role as deliver system of offerings to customers for value creation. The service system shall be designed in line with offerings and value creation process. Designing of service system is another essential part of the service innovation i.e. car service for travelling consisting of various technologies such as code downloading in a card or smartphone to be used as a key for car opening and engine starting, global positioning system, on-line payment system, membership management system, product quality control system, etc.

#### 4. Environment

It means perception of service user profile which can contribute to an effectiveness of value co-creation between service provider and service user. It is a manner of understanding all consumer contexts to be able to answer customers' inquiries in any specific context. Moreover, it can be other circumstances significant for offering designing and service system leading to encouragement towards customer to fully create value i.e. in IKEA business model, servicing customers to live in lovely houses with comfortable dining room is required to let them participate in designing and selecting proper furniture based on their life styles. This then requires some space of showing furniture layout in various styles to encourage customers' ideas. In addition, customers and their family members can co-select product models or have a designer to design and advise how to select furniture for satisfaction of all concerned and in some cases, customers may allow their children to participate in such an activity. Consequently, IKEA needs to provide a larger showroom than other similar shops with a variety of facilitating tools starting from restaurant, seats for consultation as well as kid playing area to support their customers at all levels. These shall be deemed as an environment that a service innovator should realize and it is a part of the service innovation in a form of one-stop offerings.

In conclusion, to create the practical service innovation, it is required to create it systematically and service science is an essential term introducing a beginning of thorough and diversified idea creation and beneficial to its arising. In this modern age, the service innovation has been created based on ICT in producing service offerings that are truly worthwhile and diversified. Creating the service innovation also needs to adhere to the 4 parts of framework; information, process, technologies and environment.

#### 2. 6 Relevant Researches

According to the study of Walailuck Rattanawong, Nutttida Suwanno and Anu Charoenwong- rayab (2012) on the factors affecting service innovation in tourism business of Thailand conducted with secondary data on the purpose to develop the conceptual framework of studying a model of causal structural relationship of strategic factors influencing service innovation of tourism business in Thailand, the findings revealed that 1) the service innovation was the essential tool for competitiveness, 2) marketing orientation, entrepreneurship orientation, service co-creation and technology acceptance were the casual factors positively influencing the service innovation, 3) service innovation positively influenced service operating result. This research findings shall be beneficial to entrepreneur executives to acknowledge a guideline how to further develop the service innovation to be established in their organizations.

As per the study of Walailuck Rattanawong (2014) on the antecedents and consequences of service innovation for touring business in southern of Thailand on the purpose of 1) to compare the antecedents at operation level; entrepreneurship orientation,

marketing orientation, service co-creation, technology acceptance and human resource practices whereas the consequences consisted of service operating result and service innovation of touring business in southern of Thailand in 3 areas; Andaman coast, Gulf of Thailand coast and frontier, 2) to explore relation among antecedents, consequences and empirical data of touring business in southern of Thailand, 3) to examine the antecedents; entrepreneurship orientation, marketing orientation, service co-creation, technology acceptance and human resource practices, and consequences; service operating result and service innovation to help explain variables of the quantitative research of touring business in southern of Thailand in 3 areas; Andaman coast, Gulf of Thailand coast and frontier. The population and sampling group for this research are touring business in southern of Thailand; Phuket, Surat Thani and Songkhla whereas the measurement model for antecedents and consequences of the service innovation comprises 7 latent variables. After development of antecedents and consequences of the service innovation model, the findings revealed that there were an intercorrelation among 3 exogenous latent variables; entrepreneurship orientation, service co-creation and technology acceptance.

As stated in the survey research of Samorn Deesomlert and Sudaporn Saomuang (2015) on the factor model of marketing orientation, service orientation, organization and service innovation affecting Thailand health spa business operating result on the purpose of 1) analyzing the factors influencing the operating result of Thailand health spa business, and 2) exploring the factor model influencing the operating result of the captioned business. This was a survey research conducted via a sampling group of executives of 410 health spa businesses and data collection was conducted via interviews and questionnaires. description statistics and hypothesis testing statistics were used consisting of path analysis and structural equation modeling (SEM) in which the findings revealed that the factors in marketing orientation, service orientation and organization directly influenced the service innovation factors in a positive way and indirectly influenced health spa business operating result via the service innovation factors, 2) the factor model in health spa business showing the most important weigh value was the marketing orientation and in sequence order service orientation, organization and service innovation, followed by the factors in respectively. These factors mostly affected the operating results of sales and in sequence order, profit, customer and service quality of brand, respectively.

In the study of Chen & Tsou (2007) on the variable influence of information technology (IT) acceptance towards service innovation implementation, the data was collected from financial firms in Taiwan by dividing IT acceptance into 4 dimensions; IT structure, strategic planning, organizational structure and individual learning and service innovation into 2 dimensions; process innovation and service innovation. Similarly, in the study of Grawe et al. (2009) on the relationship between the strategy of service innovation orientation and operating result and the captioned orientation strategy consisted of customer orientation, competitor orientation and pricing orientation whereas the service innovation was the capability measurement in organizational service innovation in 5 dimensions; top executive capability in service innovation orientation, capability in best service preparation for customers, organizational capability in adapting service process to cope with customer needs, organizational capability in comparison of competitive situation for new service offerings and organizational capability in applying an innovation for operating result management program in 4 aspects; sales growth, profit growth, market sharing growth and overall of competitive advantage.

### RESEARCH METHODOLOGY

This study employs a literature review method from which the results later reflect as the research findings.

### **RESULTS AND FINDINGS**

This section discusses the results and findings of the research. As per the above referred relevant studies, the service innovation factors can be concluded as per below table: Table1

**Table 1 Service Innovation Factor** 

Factors Affecting Service Innovation	Walailuck Rattanawong (2012)	Walailuck Rattanawong (2014)	Sasichai Pimpan (2019)	Chen & Tsou (2007)	Grawe et al. (2009)	Cheng & Krumwiede (2010)	Dmour et al. (2013)
Marketing Orientation	✓	✓	✓			✓	✓
Entrepreneurship Orientation	✓	$\checkmark$	$\checkmark$				
Service Co-Creation	✓	✓	✓				
IT	✓	✓	✓				
Human Resource Practices		✓	✓				
Service Orientation			✓		✓		
Organization and Environment			✓	✓			
Competitive Learning				✓	✓	✓	
Management Experience				✓			
Strategic Planning					✓		
Customer Orientation					✓	✓	

#### **CONCLUSION AND DISCUSSIONS**

The findings revealed that that there were 11 factors affecting the service innovation comprising; 1) marketing orientation, 2) entrepreneurship orientation, 3) service co-creation, 4) information technology (IT), 5) human resource practices, 6) service orientation, 7) organization & environment, 8) competitive learning, 9) management experience, 10) strategic planning and 11) customer orientation.

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# CONCEPTUAL FRAMEWORK AND DEVELOPMENT OF ESG (ENVIRONMENTAL, SOCIAL AND GOVERNANCE) IN THAILAND

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#### **ABSTRACT**

The main aim of this research is to study the conceptual framework and the development of ESG in Thailand for establishing innovative strategies for running a business. It is divided into two areas. There are (1) an overview and the importance of including ESG in doing business and (2) the development of ESG in Thailand. The qualitative approach is used as a methodology by analyzing secondary sources and documents. It is found that ESG is important to factor that impacts sustainable and ethical investment in the capital market worldwide in which investors realize and consider ESG for investing. As for Thailand, the authority is moving from Corporate Governance to ESG Development in the future. The Securities and Exchange Commission (SEC) Thailand's has carried out a project of Investment Governance Code for Institutional Investors (I Code) to create a good governance in the local capital market and will provide the for guidelines for investors under the framework in the future.

**Keywords:** Environmental, Social, Governance, Sustainable Investment

#### INTRODUCTION

Sustainability is one of the world's most challenging issues, affecting not only financial but also non-financial sectors, both those individual and organizations. In the financial sectors, the definition describes several such words as Socially Responsible Investing (SRI), Corporate Social Responsibility (CSR), Sustainable Development (SD) and Environmental, Social and Governance (ESG). The ESG factor is to focus on doing business responsibly, considering the three main aspects of the environmental, social and corporate governance, which is an issue that will affect the operating results and sustained growth of the company. An investment including the amount of ESG factors has been growing rapidly. Idar Kreutzer, who is CEO of Finance Norway, mentioned in the WBCSD Business Role Focus Area that "Sustainability is a factor in driving the investment decision of the investors" The Global Sustainable Investment Alliance (GSIA) has indicated that globally, sustainable investing assets in the five major markets stood at \$30.7 trillion at the start of 2018, a 34 percent increase in two years. Investor recognizes more ESG and has improved the demand for those involved with the disclosure of environmental impacts society and corporate governance to the public and is widespread in society. In this, many countries around the world have issued regulations to the company to be more responsible in business operations [2]. Thailand are also interested in signing the sustainable investment. Many relevant organizations are trying to make investors aware of the importance of business, taking ESG factors into account. The research on, assessing ESG [3-4], the effects of ESG disclosure on the market value of companies [5-9] has largely been interested. However, many existing studies focus on only single factor of ESG. Restricted ESG study on all three factors, environmental, social and governance in a study such as environmental factor activities will give an impact to the society [10]. Thus, the company should have a governance to be socially responsible. The relation of these three factors could strengthen the management practices to enhance the performance of company.

As the significance above, demonstrate the need to promote and develop the knowledge and understanding of ESG for investors. This report has studied the terms of ESG in each dimension. The results can be applied as a guideline for the development of innovative strategies to manage the business in Thailand.

#### **OBJECTIVE**

- 3. To provide an overview focusing on the importance of ESG in the business
- 4. To discuss the development of ESG in Thailand

#### **METHODOLOGY**

The methodology of this research is a qualitative approach by using the secondary source to analyze and synthesize the concept of ESG

#### **RESULTS**

In this study, the result can be divided into two topics: (1) the concept of ESG issues and (2) ESG situation in Thailand as described below.

## The Environmental Social and Governance (ESG)

ESG factors were first introduced a thing in investment in 2005, the New York Stock Exchange all introduced their own sustainability guidelines, such as the Principles for Responsible Investment (PRI). ESG stands for Environmental, Social and Governance in the capital market to explain the environmental, social and corporate governance issues associated with the company and its operations, which affect the investment decisions. The ESG is widely known in the field of financial investments from core operating investments which are Principles for Responsible Investment (PRI), which link to the goals of Sustainable Development Goals (SDGs) of the United Nation (UN). It consists of six principles with the primary goal of helping investors integrate ESG factors in making investment decisions and shareholder participation. Which will result in higher long-term rewards for beneficiaries. Currently, with a combined investment of more than \$30.7 trillion in 2018 and growing continuously. Six Principles for Responsible Investment consists of (1) Bringing ESG issues to analysis and investment decisions, (2) Seriously exercising rights as shareholders and taking ESG issues as part of policy formulation and rights exercise practices as shareholders, (3) Supporting the companies we invest in to disclose ESG information, (4) Promoting ESG issues for acceptance and practice in the investment industry, (5) Cooperation in the implementation of responsible investment practices and (6) Reporting of information, progress of operations in accordance with responsible investment practices.

In terms of the environment (E) are focused on using resources more efficiently. In addition, the restoration of the natural environment is influenced by the business. Environmental factors contribute to two effects. First, physical effect from direct impacts of

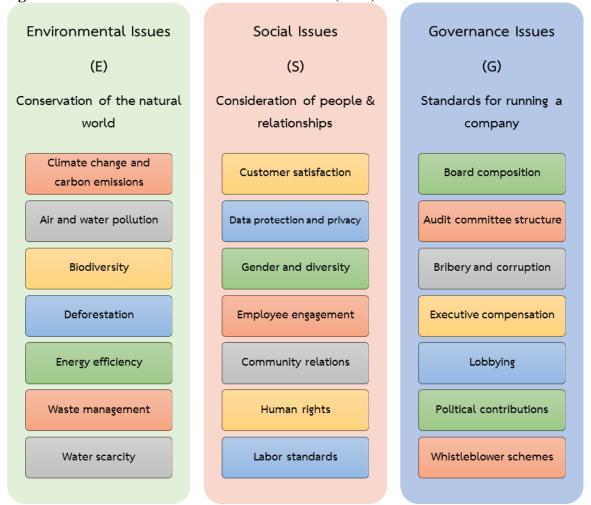
environmental changes such as nature disasters affect tourism or drought to agricultural productivity. Second, transition of official policy to tackle environmental and consumer behavior changes. The company has not been attentive to prevent the environmental impact of the business opportunity to hurt and risk doing business.

Social (S) responsibility is considered fair and equal to human resources management and the well-being of the society inside and outside. Social factors impact both inside and outside. The internal factor is to treat workers fairly, employee benefits and respect for human rights collide. The employees' quality of life inappropriate will not be able to operate a business at full capacity. For external factors, including manufacturing and services have a responsibility to the community, society, business continuity, customers and shareholders such as purchasing raw material with fair prices.

Governance (G) is considered a good corporate governance, good risk management and anti-corruption. The governance factor is the function of the director. The internal supervision management is the foundation for creating sustainable corporate values. For example, an entity's management uses internal information or fraudulent fraud, it will also directly affect the management and performance of the business.

In 2018, Chartered Financial Analyst (CFA) Institute Guidance and case studies for ESG Integration has been an example of ESG issue [11], consisting of various topics as shown in the figure 1.

Figure 1 Environmental Social and Governance (ESG)



In order to understand in another aspect, there is a comparison between CSR and ESG by Thaipat Institute. ESG is the term that the investors use when required to select the business to invest with good environment, social responsibility and corporate governance operation in which the investment can be invested. ESG is a media term between investors and the company. The relationship between CSR and ESG explains that CSR is a matter of responsibility, regardless of the expectation of stakeholders. While ESG is a matter of disclosure of information from responsible operations to consider the expectations of the investors, especially the institutional investor. As a result, the organization should consider developing and focusing on CSR in order to be able to bring those performance to the ESG information, disclosure to the investors [12].

The United Nations (UN) announced the Sustainable Development Goals (SDGs) 17 deals. It is a commitment to provide 193 national certifications for members, including Thailand. The goal of sustainable development will be used to determine the development direction of Thailand from now until the 2030, covering a period of fifteen years. The 17 targets of sustainable development Goals are shown in Figure 2.

Figure 2 Sustainable Development Goals (SDGs) [13]



### **ESG** situation in Thailand

Thailand is moving from Corporate Governance to ESG Development [14] by supporting strategy of the Securities and Exchange Commission (SEC) Thailand's. The strategy is divided into three phases: (1) Ensuring investor protection, (2) Building market confidence and (3) Fostering sustainable value creation, as shown in Table 1.

Table 1 Supporting strategy to moving from Corporate Governance to ESG Development of Thailand.

Phases	Strategies						
I.	Public Offeri	ng N	Ionitori	ing		Enforce	ement
Ensuring investor protection	<ul> <li>offering approvements</li> <li>pre-very prospering</li> <li>support professions advisor advisor auditor apprair</li> </ul>	etting ectus etting sional: ial r,	• For an arresponding to the state of the st	nancial porting whai account andards orm 56-1 nnual reponsactions laterial ansactions lated part	nting / ort s e.g.	<ul><li>insid</li><li>mark</li><li>disso</li></ul>	d e disclosure der trading ket manipulation emination of false rmation
II.	Regulatory-D	Discipline M	Iarket l	Force		Self-Dis	scipline
Building market confiden ce	<ul> <li>Board/Ma//</li> <li>Auditor R</li> <li>Qualificate</li> <li>Monitorin</li> <li>Disclosure</li> <li>Enforceme</li> <li>Remedy &amp;</li> </ul>	equired ions  g  e	Score CG W		t	<ul><li>Train Co.</li><li>Development</li><li>Train</li></ul>	nch CG Code ning to Listed elop cgthailand site ning to the Board rd Guidance
III. Fostering	SDGs	Needs of Listed Co.	Needs invest			ational ments an	Policies/Initi d atives/
sustainab le value creation	The government assigns the SEC to be responsible for a number of	Reducing the burden of multiple reports and enhancing competitive ness	•	CG Watch deman ds ESG disclos ure integra	ns  TC  Rec  atio  (Cl	mendation CFD commendons dimate ange)	l development s

sustainabilit y reports	ted • into busine ss proces s	IOSCO (GEMCGEM C) Survey (Sustainable Finance)	on par with foreign counterparts
•	ASEA N Sustai nable Capita 1 Marke t Road map	UNDP (Human Rights)	

To encourage companies to focus on environmental, social and corporate governance of the company, the Securities and Exchange Commission (SEC) Thailand's proposed investment governance Code (I Code), in 2017 and providing information to follow I Code in 2018, to be the standard of institutional investors to invest responsibly to customers with regard to ESG investment.

In terms of investment, many institutions have been indexed ESG in Thailand. The Stock Exchange of Thailand (SET) has been prepared SET THIS (SET Thailand Sustainability Investment) index. It is intended to be used as an index that reflects the price movement of the securities group of the company with a sustainable business operation. Investors can take investment decisions in conjunction with the consolidated financial information of the company. SET has been prepared in 2015 and began using the index as a reference to investment in 2018. Thaipat Institute made Thaipat ESG Index or Index ESG Thailand Thaipat used as an index to compare the return on investment (Benchmark Index) and can be used as a benchmark for investment (Investable Index) in the financial products. ESG index or Thaipat ESG index are selected from the group ESG 100 securities, which are securities with a dominant performance on environmental, social and good governance. (Environmental, Social and Governance) number of securities 100 rated securities listed on the SET and mai.

There are many companies that operate in parallel with ESG. For example, the hot issue of Thailand is dust PM2.5, which tries to solve this problem, but it doesn't work. All sectors are working together to solve these problems even the private company. These companies are committed to solving problems for people. PTT Public Company Limited performs clean water injection in the area around the office spray the water from the building to reduce dust. At the same time, the CP ALL Company Limited used to distribute the dust masks to the public or even other companies not mentioned above.

#### CONCLUSION AND FUTURE WORK

In summary, the issue of ESG is close to the daily life and has an impact on the profits and survival of the business, which ultimately affect the returns investors get by investing, especially in the long term. Therefore, it is not a surprise that the global investors have given the importance of ESG to make the decision to invest. In Thailand, all the areas involved in the capital market are constantly giving priority to this issue. Finally, it is a conclusion that every organization must have a working agency that controls the business in a transparent and sustainable manner. It must create a good image through ESG, so that investors have the confidence to invest in a long-term sustainable return.

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# TOURIST BEHAVIOR AND SATISFACTION AFFECTING DON WAI RIVERSIDE MARKET IN SAM PHRAN DISTRICT NAKHON PATHOM PROVINCE

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#### **ABSTRACT**

This research aims to study and compare tourist satisfaction affecting Don Wai Riverside Market in Sam Phran District, Nakhon Pathom Province classified by general information of 400 informants through distributed questionnaires whereas data analysis was made by a computer program for statistical data consisting of number, mean, standard deviation, t-test and one way analysis of variance: one way ANOVA. The research findings, discussion and suggestion are as per the followings:

# The findings reveal that

- 1. Most of tourists visiting Don Wai Riverside Market are female at the age of  $\leq 30$  years with single marital status, holding a bachelor's degree and working as employees in private sector with monthly income gain > 30,001 Baht up.
- 2. In view of tourist behavior, most of them visit the market for relax 1-2 times a week with duration of time spent  $\leq 3$  hours. The most selected products are desserts with an intention to enjoy having with families/friends while the average of expenditures are between 501-1,000 Baht.
- 3. An overview of tourist satisfaction towards Don Wai Riverside Market is at highest level and considering on aspect basis and in sequence order, firstly, the product aspect represents the most highest level of satisfaction same as marketing promotion and personnel aspects, respectively whereas lastly, the place aspect at high level.
- 4. In view of marketing promotion and physical characteristics aspects of Don Wai Riverside Market, the satisfaction of both male and female tourists is different at 0.5 statistical significance level.
- 5. At the different age, their satisfaction in view of product, marketing promotion and personnel aspects is different at least one pair with .05 statistical significance level.
- 6. An overview of satisfaction of tourists with different marital status in view of product and physical characteristics aspects shows difference at least one pair with .05 statistical significance level.
- 7. The satisfaction of tourists holding different educational level, In terms of product, marketing promotion and personnel aspects, is different at least one pair with .05 statistical significance level.

**Keywords:** Satisfaction/ Tourist Behavior/ Don Wai Riverside Market/Sam Phran/Nakhon Pathom

#### INTRODUCTION

Don Wai Riverside Market is the old wooden market which has opened for long time since reign of King Rama XI or approximately 100 years. It is located along Nakhon Chaisri River and adjacent to Don Wai Temple in Bangkra-Thuek Subdistrict, Sam Phran District, Nakhon Pathom Province. This market has dramatically grown since mid of B.E. 2541. During Saturday and Sunday, there are a lot of tourists visiting here under the limited area (approx. 74 rai) and the factors attracting tourists to visit here are the taste of delicious food and uniqueness of the market.

Being located near Bangkok, this market is also on the route to Ratchaburi, Karnchanaburi, Petchaburi, Suphan Buri and other places in Nakhon Pathom. The products sold at this market are various kinds of original Thai food and dessert and the outstanding agricultural products are sold here. Apart from delicious foods, the Place along Tha-Chine River of this ancient market also considerably attracts both Thai and foreign tourists' attention. Not only experiencing a plenty of various kinds of food and buying souvenirs, tourists can also take a sailing sightseeing program tour to see the scenery of both riverbank sides of the river including lifestyle of people living along the river (Janpetch Saengwong, Seree Phichitsiri, 2011).

Even though currently, there are many floating markets developed as the tourist attraction, Don Wai Riverside Market has been renovated and additionally provided its shopping area and parking lot for tourist satisfaction continuously. Consequently, the researchers then intend to explore the tourist behavior and satisfaction towards this studied market to be as a guideline for further improvement of market management to match with tourists' needs and to be a sustainable tourist attraction in due course.

## **Objective**

- 1. To explore tourist behavior and satisfaction towards Don Wai Riverside Market, Sam Phran District, Nakhon Pathom Province.
- 2. To compare tourist satisfaction towards Don Wai Riverside Market, Sam Phran District, Nakhon Pathom Province classified by general information basis.

#### RESEARCH METHODOLOGY

- 1. This research is a quantitative one and population used is the tourists visiting Don Wai Riverside Market. Taro Yamane formula was used for calculation to obtain a size of the sampling group (Taro Yamane, 1970) with 0.05 statistical significance level from which a number of 400 respondents were obtained based on sample random sampling method of probability sampling.
  - 2. Variables from the research methodology can be divided as follows: Independent Variables consist of
- 1) General information : gender, age, educational level, occupation and marital status
- 2)Tourist behavior : purpose of visit, travel frequency, length of stay, selected products, favorite and habit activities and an average of expenditures

Dependent Variables are the tourist satisfaction level towards Don Wai Riverside Market in terms of the following aspects: product, price, place, marketing promotion, personnel and physical characteristics, respectively.

- 3) The research instrument was questionnaires on tourist behavior and satisfaction towards Don Wai Riverside Market in Sam Phran District, Nakhon Pathom Province that was divided into 3 parts as follows:
- Part 1 General Information i.e. gender, age, marital status, educational level, occupation and monthly income, totally 6 check-list items
- Part 2 Tourist Behavior i.e. purpose of visit, frequency of visit, length of stay, selected products, favorite/frequent activities and average of expenditures, totally 6 check-list items
- Part 3 Tourist Satisfaction Level towards Don Wai Riverside Market in terms of the following 6 aspects; product, price, Place, marketing promotion, personnel and physical characteristics in which the measured satisfaction level was divided into 5 levels of Likert's scale; highest, high, moderate, low and lowest, totally 22 items.
- 4. The validation of the tests was reviewed by 3 experts to verify the content validity including reliability with the group of 30 try-out people similar to the sampling group from which the reliability value = .9807.
- 5. Data collection of this research was gained from the sampling group of tourists visiting the market through 400 sets of questionnaires.
- 6. All questionnaires collected from respondents were verified to check their completeness for statistical analysis and calculation made through a computer program as per the following process:
- 6.1 The descriptive statistics were applied for explanation of general information and tourist behavior visiting the studied market by using the statistics of frequency and percentage whereas the satisfaction analysis was made based on mean and standard deviation values.
  - 6.2 The inferential statistics were applied for hypothesis testing as follows:
- 1) The analysis to compare the tourist satisfaction was made by comparing the mean value of 2 sampling groups with independent t-test through randomizing each independent sampling group under the following steps: testing difference between variance of both sampling groups with Levene's test and in case the result showed indifference of variances of both groups, t-test of the equal variances assumed was applied but in case the difference was found, the equal variances not assumed was applied.
- 2) The analysis to compare the tourist satisfaction was made by comparing the mean value of 2 sampling groups with one way ANOVA and after the difference was found, the Least significant difference (LSD) method was then applied for pairwise comparison.

#### **RESULTS**

# Part 1 Analysis Results of General Information from Respondents

In view of the general information consisting of gender, age, educational level, occupation and marital status of 400 respondents, it was found that in sequence order, most of them, totally 179 respondents or 44.8 % are at the age of  $\leq$  30 years, and 75 respondents or 18.80 % are 31-40 years, 76 respondents or 19.0 % are over than 31 years up, , respectively. Most of them, totally 206 respondents or 51.4% are single, 151 respondents or 37.8% are married and 43 respondents or 10.8% are divorced, respectively. A number of 181 respondents or 45.2% hold educational level of a bachelor's degree whereas 142 respondents or 35.5% with a diploma/high vocational level and 66 respondents or 16.5% with higher a bachelor's degree, respectively. For occupation, most of them, totally 153 respondents or 38.3 % are employees in private sector, 161 respondents or 40.3 % are general workers and

65 respondents or 16.5% are business owners, respectively. With respect to an average of monthly income, most of them, totally 153 respondents or 38.2% earn over 30,001 Baht whereas 142 respondents or 35.5% earn between 20,000-30,000 Baht and 85 respondents or 21.3% earn between 10,001-20,000 Baht, respectively.

### Part 2 Analysis Results of Tourist Behavior

With regards to the tourist behavior on purpose of visit aspect, most of them, totally 135 respondents or 33.8% visit the market for relax, 113 respondents or 28.2% for buying souvenirs/giveaways and 91 respondents or 22.8% for experiencing natural environment. In view of frequency of visit, most of them, totally 280 respondents or 70.0 % visit the market 1-2 times/week, 72 respondents or 18.0% visit 5- 6 times/week and 48 respondents or 12.0% visit 4 times/week, respectively. For length of stay, most of them, totally 192 respondents or 48.0% spend  $\leq 3$  hours, 168 respondents or 42.0% spend between 3-4 hours and 40 respondents or 10.0% spend between 5 – 6 hours, respectively. For selected products, dessert is the most preferable indicated by 175 respondents or 43.8 %, fresh fruits by 103 respondents or 25.8% and cooked food by 96 respondents or 24.0%, respectively. The most favorite activities are having food with family/friends as indicated by 163 respondents or 40.8%, sightseeing tour by boat sailing by 148 respondents or 37.0% and merit making/fish feeding by 69 respondents or 17.2%, respectively. In view of an average of expenditures, mostly are between 501 - 1,000 Baht as per 191 respondents or 47.8 %,  $\leq 500$  Baht as per 155 respondents or 38.8% and between 1,001 - 1,500 Baht as per 45 respondents or 11.2%, respectively.

# Part 3 Analysis Results of Comparison on Tourist Satisfaction towards Don Wai Riverside Market, Sam Phran District, Nakhon Pathom Province - Classified by General Information

The followings are analysis results of comparison on tourist satisfaction classified by the general information consisting of gender, age, marital status, educational level, occupation and an average monthly income.

# 3.1 Comparison of Tourist Satisfaction towards Don Wai Riverside Market, Sam Phran District, Nakhon Pathom Province – Classified by Gender

In comparing tourist satisfaction towards the studied market, the statistical hypothesis was made as follows:

 $H_0$ : The satisfaction of both male and female tourists towards the studied market are not different.

H<sub>1</sub>: The satisfaction of both male and female tourists towards the studied market are different.

The statistics of t-test was applied to verify the difference of means between both independent groups of population with 95% confidence level and the null hypothesis ( $H_0$ ) would be rejected in case p-value was  $\leq$  .05 and the results of the hypothesis testing are as shown in Table 1 below.

**Table 1** Comparison of Tourist Satisfaction towards Don Wai Riverside Market, Sam Phran District, Nakhon Pathom Province – Classified by Gender

<b>Tourist Satisfaction</b>	Gender	$\overline{x}$	S.D.	t	df	p- value	
towards Don Wai Riverside Market						value	
1. Product Aspect	Male	4.64	.360	-1.099	398	.273	
	Female	4.68	.330				
2. Price Aspect	Male	4.34	.591	1.605	398	.109	
	Female	4.23	.691				
3. Place Aspect	Male	4.13	.595	.890	398	.374	
	Female	4.08	.546				
4. Marketing Promotion Aspect	Male	4.39	.478	-	398	.020	
	Female	4.50	.483	2.336*			
5. Personnel Aspect	Male	4.38	.478	-1.868	398	.062	
	Female	4.48	.498				
6. Physical Characteristics Aspect	Male	4.31	.520		398	.001	
	Female	4.48	.501	3.331*			
Overview	Male	4.37	.345	-1.255	398	.210	
	Female	4.41	.338				

<sup>\*</sup> at statistical significance level of 0.05

As per Table 1 in which t-test was applied, the results of comparison of tourist satisfaction towards the studied market as classified by gender reveal that in view of an overview and 3 aspects, the p-value = .210, .273, .109, .374 and .062, respectively that are over than .05, the  $H_0$  is then accepted. This indicates that an overview of both male and female tourist satisfaction towards products, price, place and personnel aspects are not different.

Whereas another 2 aspects; marketing promotion and physical characteristics, the p-value = .020 and .001, respectively that are lower than .05. The  $H_0$  is then rejected. This indicates that both male and female tourist satisfaction towards these captioned aspects are different with statistical significance level of .05 and female tourist satisfaction level, in view of marketing promotion and physical characteristics aspects, are higher.

# 3.2 Comparison of Tourist Satisfaction towards Don Wai Riverside Market, Sam Phran District, Nakhon Pathom Province – Classified by Age

In comparing tourist satisfaction towards the studied market, classified by age, the statistical hypothesis was made as follows:

H<sub>0</sub>: At different ages, the tourist satisfaction is not different.

H<sub>1</sub>: At different ages, the tourist satisfaction is different at least one pair.

One-way analysis of variance : One Way ANOVA was applied for analysis with 95% confidence level and null hypothesis ( $H_0$ ) would be rejected in case p-value was  $\leq$  .05 and the results of the hypothesis testing as shown in Table 2 below.

**Table 2** Comparison of Tourist Satisfaction towards Don Wai Riverside Market, Sam Phran District, Nakhon Pathom Province – Classified by Age

<b>Tourist Satisfaction</b>	Variable					р-
towards Don Wai Riverside Market	Source	df	SS	MS	F	value
1. Product Aspect	between group	3	1.964	.655	5.715*	.001
	within-group	396	45.364	.115		
	Total	399	47.328			
2. Price Aspect	between group	3	1.007	.336	.799	.495
	within-group	396	166.345	.420		
	Total	399	167.351			
3. Place Aspect	between group	3	1.605	.535	1.660	.175
	within-group	396	127.589	.322		
	Total	399	129.184			
4. Marketing Promotion Aspect	between group	3	4.917	1.639	7.334*	.000
	within-group	396	88.494	.223		
	Total	399	93.411			
5. Personnel Aspect	between group	3	6.519	2.173	9.621*	.000
	within-group	396	89.436	.226		
	Total	399	95.955			

Tourist Satisfaction towards Don Wai Riverside Market	Variable Source	df	SS	MS	F	p- value
6. Physical Characteristics Aspect	between group	3	1.742	.581	2.201	.087
	within-group	396	104.499	.264		
	Total	399	106.242			
Overview	between group	3	.809	.270	2.336	.073
	within-group	396	45.694	.115		
	Total	399	46.503			

<sup>\*</sup> at statistical significance level of 0.05

According to Table 2, by using the one way analysis of variance, the results of comparison reveal that in terms of an overview and 3 aspects, the p-value was = .073, .495, .175  $\mu$  .087, respectively that are over than .05. This represents that H<sub>0</sub> is accepted indicates that at different ages of tourists, their satisfaction towards the studied market, in terms of an overview and price, place and physical characteristics aspects are not different.

Whereas for another 3 aspects; the p-value = .001, .000 and .000, respectively that are lower than .05 representing that  $H_0$  is rejected. This indicates that at different ages, the tourist satisfaction towards the studied market, in terms of product, marketing promotion and personnel aspects are different at least one pair with .05 statistical significance level.

After it was found that at different ages, the tourist satisfaction towards the studied market, in terms of product, marketing promotion and personnel aspects are different at least one pair, the multiple comparison was then made for the results with the method of Least Significant Different (LSD) to test which pair is different as details shown in Table 3-5 below.

**Table 3** Pair Comparison of Tourist Satisfaction towards Don Wai Riverside Market, Sam Phran District, Nakhon Pathom Province – Classified by Age

Age		≤30 years	31 – 40 years	41 – 50 years	> 51 years up
	$\overline{x}$	4.59	4.69	4.66	4.78
<20	4.50		092*	063	187*
≤30 years	≤30 years 4.59	-	(.039)	(.189)	(.000)
21 40	4.60			.034	091
31 – 40 years	4.69	-	-	(.552)	(.100)

41 – 50 years	4.66	-	-	-	124* (.027)
> 51 years up	4.78	-	-	-	-

<sup>\*</sup> at statistical significance level of 0.05

The above table shows that the results of pair comparison on tourist satisfaction towards the studied market in view of product aspect as classified by age indicate that at the ages  $\leq 30$  years, between 31-40 years and >51 years up, the p-value = .039 and .000 that are lower than .05. This thereby represents that the satisfaction of tourists whose ages  $\leq 30$  years, in view of product aspect, are different from the satisfaction of tourists whose ages between 31-40 years and >51 years up with .05 statistical significance level. The group of ages  $\leq 30$  years show their satisfaction level on product aspect lower than the groups of age between 31-40 years and >51 years up.

Whereas the p-value of the ages between 41 - 50 years and > 51 years up = .027 that are lower than .05. This thereby represents that in view of product aspect, the satisfaction of both groups are different with .05 statistical significance level and the satisfaction of the group of ages between 41 - 50 years are lower than the group of > 51 years up.

**Table 4** Pair Comparison of Tourist Satisfaction towards Don Wai Riverside Market, Sam Phran District, Nakhon Pathom Province – Classified by Age

Age		≤30 years	31 – 40 years	41 – 50 years	> 51 years up
	$\overline{x}$	4.35	4.56	4.62	4.41
<20 *****	1.25		210*	274*	062
≤30 years	≤30 years 4.35		(.001)	(.000)	(.337)
31 - 40 years	4.56			064	.148
31 – 40 years	4.50	-	-	(.417)	(.056)
41 50 200 000	4.62				.212*
41 – 50 years	4.62	-	-	-	(.007)
> 51 years up	4.41	-	-	-	-

<sup>\*</sup> at statistical significance level of 0.05

The results of pair comparison on tourist satisfaction towards the studied market classified by age as per the above Table 4 show that in view of marketing promotion aspect, for the group of ages  $\leq 30$  years, between 31-40 years and >51 years up, the p-value = .001 and .000 that are lower than .05. This thereby represents that the satisfaction of tourists whose ages  $\leq 30$  years, in view of marketing promotion aspect, are different from the satisfaction of tourists whose ages are between 31-40 years and 41-50 years with .05 statistical significance level. The group of ages  $\leq 30$  years shows their satisfaction level lower than the groups of age between 31-40 years and 41-50 years.

Whereas the p-value of the ages between 41 - 50 years and > 51 years up are .007 that are lower than .05. This represents that the satisfaction of tourists whose ages 41 - 50 years is different from the group of ages > 51 years up with .05 statistical significance level. The group of ages between 41- 50 years shows their satisfaction level on marketing promotion aspect higher than the groups of age > 51 years up.

**Table 5** Pair Comparison of Tourist Satisfaction towards Don Wai Riverside Market, Sam Phran District, Nakhon Pathom Province – Classified by Age

		≤ 30 years	31 – 40 years	41 – 50 years	> 51 years
Age			•		up
	$\overline{x}$	4.37	4.42	4.70	4.35
≤30 years	4.37	_	057	340*	.014
2 50 years 4.57		(.382)	(.000)	(.828)	
31 - 40 years	4.42	_	_	283*	.071
31 – 40 years	7.72	_	_	(.000)	(.357)
41 - 50 years	4.70	_	_	_	.354*
71 = 50 years	4.70	_	_	_	(.000)
> 51 years up	4.35	-	-	-	-

<sup>\*</sup> at statistical significance level of 0.05

As per the above Table 5, in view of personnel aspect as classified by age, the pair comparison of tourists satisfaction shows that at each group of ages; between 41-50 years and  $\leq 30$  years, 31-40 years and > 51 years up, the p-value are .000, .000 and .000, respectively that are lower than .05. This indicates that the satisfaction of the group at the age between 41-50 years, in view of personnel aspect, is different from the groups of ages  $\leq 30$  years, 31-40 years and > 51 years up with .05 statistical significance level. The satisfaction of the group of ages between 41-50 years is higher than other groups.

# 3.3 Comparison of Tourist Satisfaction towards Don Wai Riverside Market , Sam Phran District, Nakhon Pathom Province – Classified by Marital Status

In comparing tourist satisfaction towards the studied market as classified by marital status, the statistical hypothesis was made as follows:

H<sub>0</sub>: The satisfaction of tourists with different marital status towards the studied market is not different.

H<sub>1</sub>: The satisfaction of tourists with different marital status towards the studied market is different at least one pair.

The statistics of One Way Analysis of Variance : One Way ANOVA was applied to verify the difference of the tourist satisfaction classified by marital status with 95% confidence level and the null hypothesis ( $H_0$ ) would be rejected in case p-value was  $\leq$  .05 and the results of the hypothesis testing as shown in Table 4.15 below.

**Table 6** Comparison of Tourist Satisfaction towards Don Wai Riverside Market, Sam Phran District, Nakhon Pathom Province – Classified by Marital Status

Variable					р-
Source	df	SS	MS	F	value
between- group	2	2.528	1.26	11.202*	.000
within- group	397	44.800	.113		
Total	399	47.328			
between- group	2	1.361	.681	1.628	.198
within- group	397	165.990	.418		
Total	399	167.351			
between- group	2	.461	.230	.710	.492
within- group	397	128.733	.324		
Total	399	129.194			
between- group	2	1.001	.501	2.150	.118
within- group	397	92.410	.233		
	between- group within- group Total between- group Total between- group Total between- group within- group Total between- group within- group Total between- group within- group	between-group  within-group  Total 399  between-group  within-group  Total 399  between-group  within-group  Total 399  between-group  within-group  Total 397  group  within-group  Total 399  between-group  within-397  group  Total 399	Source       df       SS         between-group       2       2.528         within-group       397       44.800         Total       399       47.328         between-group       2       1.361         within-group       397       165.990         Total       399       167.351         between-group       2       .461         within-group       397       128.733         Total       399       129.194         between-group       2       1.001         within-group       397       92.410	Source       df       SS       MS         between-group       2       2.528       1.26         within-group       397       44.800       .113         Total       399       47.328         between-group       2       1.361       .681         within-group       397       165.990       .418         between-group       2       .461       .230         within-group       397       128.733       .324         between-group       399       129.194       129.194         between-group       2       1.001       .501         within-group       397       92.410       .233	Source       df       SS       MS       F         between-group       2       2.528       1.26       11.202*         within-group       397       44.800       .113         between-group       2       1.361       .681       1.628         between-group       397       165.990       .418         between-group       2       .461       .230       .710         between-group       397       128.733       .324         between-group       399       129.194         between-group       2       1.001       .501       2.150         between-group       2       1.001       .501       2.150         within-group       397       92.410       .233

Tourist Satisfaction towards Don Wai Riverside Market	Variable Source	df	SS	MS	F	p- value
	Total	399	93.411		-	
5. Personnel Aspect	between- group	2	.256	.128	.513	.588
	within- group	397	95.699	.241		
	Total	399	95.955			
6. Physical Characteristics Aspect	between- group	2	3.811	1.90 5	7.385*	.001
	within- group	397	102.431	.258		
	Total	399	106.242			
Overview	between- group	2	.931	.466	4.057*	.018
	within- group	397	45.572	.115		
	Total	399	46.503			

<sup>\*</sup> at statistical significance level of 0.05

According to Table 6 above, the statistics of One Way Analysis of Variance: One Way ANOVA was applied to verify the difference of the tourist satisfaction classified by marital status and the results reveal that in terms of 4 aspects, the p-vale = .198, .492, .118 and .588, respectively that are over than .05 indicating that the null hypothesis  $(H_0)$  is accepted. This represents that with different marital status, no difference appears in all aspects; price, place, marketing promotion and personnel.

Whereas for an overview and 2 aspects, the p-value = .018, .000 and .001, respectively that are lower than .05 or indicating that the null hypothesis (H<sub>0</sub>) is rejected and represents that with different marital status, the tourist satisfaction, in terms of an overview, product aspect and physical characteristics aspect, are different at least one pair with .05 statistical significance level.

After finding that with different marital status, the tourist satisfaction, in terms of an overview, product aspect and physical characteristics aspect, are different at least one pair, the Least Significant Difference (LSD) was then applied for multiple comparison in order to find out which pair is different as shown in Table 7-9 below:

**Table 7** Pair Comparison of Tourist Satisfaction towards Don Wai Riverside Market, Sam Phran District, Nakhon Pathom Province – Classified by Marital Status

Marital Status		Single	Married	Divorced
Wartar Status	$\overline{x}$	4.38	4.43	4.26
Single	4.38		047	.118*
Single	4.36	-	(.192)	(.038)
Married	4.43	_	_	.166*
				(.005)
Divorced	4.26	-	-	-

<sup>\*</sup> at statistical significance level of 0.05

As per Table 7, the pair comparison of tourist satisfaction, in view of an overview, as classified by marital status, represents that with marital status of being divorced, single and married, the p-value = .038 and .005 indicating that the tourists with divorced marital status, an overview of their satisfaction is different from the satisfaction of the groups of being single and married with 0.5 statistical significance level. An overview of satisfaction of tourists with divorced marital status is lower than another two compared marital status.

**Table 8** Pair Comparison of Tourist Satisfaction towards Don Wai Riverside Market, Sam Phran District, Nakhon Pathom Province, on Product Aspect – Classified by Marital Status

Marital Status		Single	Married	Divorced
Maritai Status	$\overline{x}$	4.62	4.76	4.53
Single	4.62	_	138*	.091
Single	7.02	-	(.000)	(.107)
Married	4.76	_	_	.229*
Warried	4.70			(.000)
Divorced	4.53	-	-	-

<sup>\*</sup> at statistical significance level of 0.05

As per Table 8 above, in view of product aspect as classified by marital status, the pair comparison reveals that the p-value of married, single and divorced status = .000 and .000 that are lower than .05 indicating that the satisfaction of married tourists is different from the satisfaction of single and divorced tourists with .05 statistical significance level. The satisfaction of married tourists in view of product aspect is lower than another 2 single and divorced groups.

**Table 9** Pair Comparison of Tourist Satisfaction towards Don Wai Riverside Market, Sam Phran District, Nakhon Pathom Province, on Physical Characteristics Aspect –

Classified by Marital Status

Marital Status		Single	Married	Divorced
Marital Status	$\overline{x}$	4.43	4.44	4.12
Single	4.43		002	.314*
	4.43	-	(.967)	(.000)
Married	4.44	_	_	.316*
112011100				(.000)
Divorced	4.12	-	-	-

<sup>\*</sup> at statistical significance level of 0.05

As per Table 9, the pair comparison shows that in view of physical characteristics aspect and as classified by marital status, the p-value of divorced, single and married = .000 and .000 lower than .05 indicating that the satisfaction of divorced tourists In view of physical characteristic aspect is different from the satisfaction of single and married one with .05 statistical significance level. The satisfaction of divorced tourists is lower than the satisfaction of another single and married ones .

# 3.4 Comparison of Tourist Satisfaction towards Don Wai Riverside Market, Sam Phran District, Nakhon Pathom Province - Classified by Educational Level

In comparing tourist satisfaction towards the studied market classified by educational level, the statistical hypothesis was made as follows:

H<sub>0</sub>: The satisfaction of tourists holding different educational levels is not different.

H<sub>1</sub>: The satisfaction of tourists holding different educational levels is different at least one pair.

The statistics of One Way Analysis of Variance : One Way ANOVA was applied to verify the difference of the tourist satisfaction as classified by educational level with 95% confidence level and the null hypothesis ( $H_0$ ) would be rejected in case p-value was  $\leq$  .05 and the results of the hypothesis testing as shown in Table 10 below.

**Table 10** Comparison of Tourist Satisfaction towards Don Wai Riverside Market , Sam Phran District, Nakhon Pathom Province – Classified by Educational Level

Tourist Satisfaction towards Don Wai Riverside Market	Variable Source	df	SS	MS	F	p- value
1. Product Aspect	between- group	3	1.319	.440	5.715*	.001
	within-	396	46.009	.116		

<b>Tourist Satisfaction</b>	Variable	ar	CC	MC	17:	р-	
towards Don Wai Riverside Market	Source	df	SS	MS	F	value	
	group	_			-		
	Total	399	47.328				
2. Price Aspect	between- group	3	.941	.314	.799	.525	
	within- group	396	166.410	.420			
	Total	399	167.351				
3. Place Aspect	between- group	3	.394	.313	1.660	.751	
	within- group	396	128.800	.325			
	Total	399	129.194				
4. Marketing Promotion Aspect	between- group	3	3.345	1.115	7.334*	.002	
	within- group	396	90.066	.227			
	Total	399	93.411				
5. Personnel Aspect	between- group	3	2.520	.840	9.621*	.014	
	within- group	396	93.436	.236			
	Total	399	95.955				
6. Physical Characteristics Aspect	between- group	3	.565	.188	2.201	.549	
	within- group	396	105.677	.267			
	Total	399	106.242				
Overview	between-	3	.775	.258	2.336	.084	

Tourist Satisfaction towards Don Wai Riverside Market	Variable Source	df	SS	MS	F	p- value
	group					
	within- group	396	45.728	.115		
	Total	399	46.503			

<sup>\*</sup> at statistical significance level of 0.05

According to Table 10 above, the comparison results of tourist satisfaction classified by educational level conducted by the statistics of One Way Analysis of Variance: One Way ANOVA show that in terms of an overview and 3 aspects, the p-value = .084, .525, .751 and .549, respectively that are over than .05. This thereby indicates that the null hypothesis (H<sub>0</sub>) is accepted indicating that the satisfaction of tourists holding different educational levels, in terms of an overview, price, place and physical characteristics aspects, is not different.

In terms of 3 aspects; product, marketing promotion and personnel, the p-value = .001, .002 and .014, respectively that are lower than .05 representing that the null hypothesis (H<sub>0</sub>) is rejected or indicating that the satisfaction of tourists holding different educational levels, in terms of the aforementioned aspects is different at least one pair with .05 statistical significance level.

After finding that the satisfaction of tourists holding different educational levels, in terms of product, marketing promotion and personnel aspects, is different at least one pair, the analysis by the method of Least Significant Difference (LSD) was then applied for multiple comparison to find out which pair was different and the results as shown in Table 11-13 below.

**Table 11** Pair Comparison of Tourist Satisfaction towards Don Wai Riverside Market, Sam Phran District, Nakhon Pathom Province, on Product Aspect – Classified by Educational Level

Educational Level		Primary School or lower	Diploma/High Vocational or equivalent	Bachelor's Degree	Higher Bachelor's Degree
	$\overline{x}$	4.75	4.72	4.60	4.69
Primary School	4.75		.030	.149	.052
or lower	4.75	-	(.779)	(.161)	(.643)
Diploma/High				.119*	.022
Vocational or equivalent	4.72	-	-	(.002)	(.671)
Bachelor's	4.60	-	-	-	097*

Educational Level	$\overline{x}$	Primary School or lower	Diploma/High Vocational or equivalent	Bachelor's Degree	Higher Bachelor's Degree
Degree					(.048)
Higher Bachelor's Degree	4.69	-	-	-	-

<sup>\*</sup> at statistical significance level of 0.05

According to Table 11, in view of product aspect as classified by educational level of the tourists, the results represent that for tourists holding a bachelor's degree, diploma/high vocational or equivalent and higher bachelor's degree, the p-value of satisfaction = .005 and .048 which are lower than .05 indicating that the satisfaction of tourists holding a bachelor's degree is different from the satisfaction of other compared educational levels with .05 statistical significance level. The satisfaction of tourists holding a bachelor's degree is lower than the satisfaction of others.

**Table 12** Pair Comparison of Tourist Satisfaction towards Don Wai Riverside Market, Sam Phran District, Nakhon Pathom **Province, on Marketing Promotion Aspect – Classified by Educational Level** 

Educational Level		Primary School or Lower	Diploma/High Vocational or equivalent	Bachelor's Degree	Higher Bachelor's Degree
	$\overline{x}$	4.70	4.50	4.36	4.55
Primary School	4.70		.195	.342*	.146
or lower	4.70	-	(.193)	(.022)	(.346)
Diploma/High				.147*	048
Vocational or Equivalent	4.50	-	-	(.006)	(.498)
Bachelor's	4.26				195*
Degree	4.36	-	-	-	(.005)
Higher Bachelor's Degree	4.55	-	-	-	-

<sup>\*</sup> at statistical significance level of 0.05

According to Table 12, in view of marketing promotion aspect as classified by educational level of the tourists, the results represent that for tourists holding a bachelor's degree & primary school or lower ,diploma/high vocational or equivalent and higher bachelor's degree, the p-value of satisfaction = .022, .006 and .005, respectively which are lower than .05 indicating that the satisfaction of tourists holding a bachelor's degree is different from the satisfaction of other compared groups of educational levels with .05 statistical significance level. The satisfaction of tourists holding a bachelor's degree in view of marketing promotion aspect is lower than the satisfaction of others.

**Table 13** Pair Comparison of Tourist Satisfaction towards Don Wai Riverside Market, Sam Phran District, Nakhon Pathom Province, on Personnel Aspect – Classified by Educational Level

Educational Level		Primary School or Lower	Diploma/HighVocational or Equivalent	Bachelor's Degree	Higher Bachelor's Degree
	$\overline{x}$	4.67	4.51	4.35	4.43
Primary			.155	.309*	.237
School or lower	4.67	-	(.309)	(.041)	(.134)
Diploma/High				.154*	.082
Vocational or equivalent	4.51	-	-	(.005)	(.255)
Bachelor's					072
Degree	4.35	-	-	-	(.303)
Higher Bachelor's Degree	4.43	-	-	-	-

<sup>\*</sup> at statistical significance level of 0.05

According to Table 13, in view of personnel aspect as classified by educational level of the tourists, the results represent that for tourists holding a bachelor's degree & primary school or lower and diploma/high vocational or equivalent, the p-value of satisfaction = .041 and .005 which are lower than .05 indicating that the satisfaction of tourists holding a bachelor's degree is different from the satisfaction of others holding primary school or lower and diploma/high vocational or equivalent ones with .05 statistical significance level. The satisfaction of tourists with a bachelor's degree is lower than the satisfaction of others holding primary school or lower and diploma/high vocational or equivalent.

# 3.5 Comparison of Tourist Satisfaction towards Don Wai Riverside Market , Sam Phran District, Nakhon Pathom Province – Classified by Occupation

In comparing the tourist satisfaction towards the studied market as classified by occupation, the statistical hypothesis was made as follows:

H<sub>0</sub>: The satisfaction of tourists with different occupation is not different.

H<sub>1</sub>: The satisfaction of tourists with different occupation is different at least onr pair.

The statistics of One Way Analysis of Variance : One Way ANOVA was applied to verify the difference of the tourist satisfaction classified by occupation with 95% confidence level and the null hypothesis  $(H_0)$  would be rejected in case p-value was  $\leq$  .05 and the results of the hypothesis testing as shown in Table 14 below.

**Table 14** Comparison of Tourist Satisfaction towards Don Wai Riverside Market, Sam Phran District, Nakhon Pathom Province – Classified by Occupation

Tourist Satisfaction towards Don Wai Riverside Market	Variable Source	df	SS	MS	F	p-value
1. Product Aspect	Between- group	4	.646	.162	1.367	.245
	Within- group	395	46.681	.118		
	Total	399	47.328			
2. Price Aspect	Between- group	4	1.310	.328	.779	.539
	Within- group	395	16.041	.420		
	Total	399	167.351			
3. Place Aspect	Between- group	4	.816	.204	.628	.643
	Within- group	395	128.377	.325		
	Total	399	129.194			
4. Marketing Promotion	Between- group	4	.249	.062	.264	.901
	Within- group	395	93.162	.236		
	Total	399	93.411			

Tourist Satisfaction towards Don Wai Riverside Market	Variable Source	df	SS	MS	F	p-value
5. Personnel Aspect	Between- group	4	.832	.208	.864	.486
	Within- group	395	95.123	.241		
	Total	399	95.955			
6. Physical Characteristics Aspect	Between- group	4	.445	.111	.416	.797
	Within- group	395	105.797	.268		
	Total	399	106.242			
Overview	Between- group	4	.024	.006	.050	.995
	Within- group	395	46.479	.118		
	Total	399	46.503			

As per Table 14, with One Way ANOVA in analyzing the tourist satisfaction classified by occupation, the results show that in terms of an overview and 6 aspects, the p-value = .995, .245, .539, .643, .901, .486 and .797, respectively that are over than .05 indicating that the null hypothesis (H<sub>0</sub>) is accepted. With different occupation, there is no difference of satisfaction of tourists in terms of both an overview and 6 aspects; product, price, place, marketing promotion, personnel and physical characteristics.

# 3.6 Comparison of Tourist Satisfaction towards Don Wai Riverside Market , Sam Phran District, Nakhon Pathom Province – Classified by Average Monthly Income

In comparing tourist satisfaction towards the studied market classified by an average monthly income, the statistical hypothesis was made as follows:

H<sub>0</sub>: The satisfaction of tourists with different occupations is not different.

H<sub>1</sub>: The satisfaction of tourists with different occupations is different at least one pair.

The statistics of One Way Analysis of Variance: One Way ANOVA was applied to verify the difference of the tourist satisfaction classified by an average monthly income with 95% confidence level and the null hypothesis ( $H_0$ ) would be rejected in case p-value was  $\leq .05$  and the results of the hypothesis testing as shown in Table 15 below.

Table 15 Comparison of Tourist Satisfaction towards Don Wai Riverside Market, Sam Phran District, Nakhon Pathom Province – Classified by Average Monthly Income

Tourist Satisfaction towards Don Wai Riverside Market	Variable Source	df	SS	MS	F	p-value
1. Product Aspect	Between- group	3	.310	.103	.871	.456
	Within- group	396	47.017	.119		
	Total	399	47.328			
2. Price Aspect	Between- group	3	1.117	.372	.887	.448
	Within- group	396	166.234	.420		
	Total	399	167.351			
3. Place Aspect	Between- group	3	.678	.226	.696	.555
	Within- group	396	128.516	.325		
	Total	399	129.194			
4. Marketing Promotion Aspect	Between- group	3	.058	.019	.083	.970
	Within- group	396	93.352	.236		
	Total	399	93.411			
5. Personnel Aspect	Between- group	3	.549	.183	.759	.517
	Within- group	396	95.406	.241		
	Total	399	95.955			
6. Physical Characteristics Aspect	Between- group	3	.566	.189	.707	.549

Tourist Satisfaction towards Don Wai Riverside Market	Variable Source	df	SS	MS	F	p-value
	Within- group	396	105.676	.267		
	Total	399	106.242			
Overview	Between- group	3	.026	.009	.073	.974
	Within- group	396	46.477	.117		
	Total	399	46.503			

According to Table 15 above, the tourist satisfaction as classified by an average monthly income that was analyzed by the statistics of One Way ANOVA shows that in terms of an overview and 6 aspects, the p-value = .974, .456, .448, .555, .970, .517 and .548, respectively which are over than .05 indicating that the null hypothesis (H<sub>0</sub>) is accepted. With different average monthly income, there is no difference of satisfaction of tourists, in terms of an overview and 6 aspects; product, price, place, marketing promotion, personnel and physical characteristics.

# CONCLUSION AND DISCUSSION

As per the research findings, significant issues were subsequently concluded and discussed as details shown below:

- 1. Male and female tourist satisfaction towards Don Wai Riverside Market are different in terms of marketing promotion and physical characteristics aspects with 0.5 statistical significance level indicating that female tourists place more importance than male tourists on advertisement and public relation made through printing media, radio, television showing a variety of food and beverages including cleanliness of the river where the market is located. This is in line with the study of Worawut Singnil (2008) stating that servicing is the process or activity process to provide service to service users and it is intangible and easy to disappear. The service is created and delivered to service users for further utilization immediately or almost once the service has been provided with intention on excellent service. Also, same as the study of Phenchan Sanprasarn (1999 as referred in Arunothai Ounthaisong, 2009) stating that the service quality is making customers satisfied and it is a service responding to customers' needs including the process of such a service covering to afterservice as well. Moreover, the service needs to respond to basic needs of users as well as thoroughly meeting service user's expectation for their satisfaction.
- 2. At different age and with different educational level, the tourist satisfaction towards the studied market in terms of product, marketing promotion and personnel aspects is different at least one pair with 0.5 statistical significance level indicating that the tourists at the age of  $\leq 30$  years with a bachelor's degree place more importance on product quality, food taste, courtesy & enthusiasm of merchants and being a tourist attraction for relax and enjoying natural environment and local lifestyle. This is in line with the study of Cotler

Philippe (2003) stating that the marketing mix is the controllable marketing tools that a business unit can integrate and utilize them for responding to the needs and making satisfaction of its targeted customers. The marketing mix comprises all that a business unit uses for influencing and drawing attention of customers to be interested in its products. The marketing mix can be divided into 4 groups or so-called "4 Ps"; product, price, place and promotion. This is also in line with the study of Stanton (1981 as referred in Natthiya Daengprasaeng, 2010) stating that servicing is an activity or any benefit that can respond to needs for satisfaction and due to its intangible specific characteristics and unnecessity to be included with any product or service, service may be related to utilization or no utilization of tangible products but it does not represent an ownership of such a product.

3. In terms of an overview, product and physical characteristics aspects, the satisfaction of the tourists with different marital status is different at least one pair with .05 statistical significance level indicating that the tourists place an importance on merit making/paying respect to sanctity, a variety of food and beverage and agricultural products. This is in line with the study of Seri Wongmontha (1999) stating that marketing mix means having products responding to the needs of the target group of customers at acceptable price and customers are willing to pay due to their worthiness as well as being distributed in line with customer purchasing behavior and convenience based on attractive product basis and suitable behavior. Also, it is in line with the study of Smith Satchukorn (2003) stating that servicing is significant for many kinds of works. It is thereby an assistance or execution beneficial to others. There is no execution without service in terms of both private and government sectors and it is included in all selling of goods or products particularly in a service business, the service itself is a product. The achievement of selling will arise subject to good service and a business unit will survive under repetition of selling or maintaining existing customers and increasing new ones. The good selling needs maintaining of existing customers leading to repeated rebuying and bringing of new customers. In addition, this is in line with the studies of Boonying (2018) on "Demands and problems faced by Chinese tourists travelling in Thailand", Vorasiha, (2018) on "The Travelling Route for Gastronomic Tourism via Salt in Western Region of Thailand" and Rininda Tangtatswas, Puris Sornsaruht, Paitoon Pimdee. (2019) on "Fast-Food Restaurant Customer Satisfaction in Thailand".

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# FACTORS INFLUENCING THE INTENTION TO USE ELECTRICITY FROM SOLAR ENERGY IN BANGKOK HOUSEHOLDS: A CONCEPTUAL PERSPECTIVE

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#### **ABSTRACT**

This study aimed to explore the perceived usefulness, attitudes influencing the intention to use, the influences of the variables on the intention to use electricity from solar energy in Bangkok households, and to present the form of the intention to use a solar rooftop to the relevant agencies. The research used mixed methods, i.e., quantitative research (questionnaire), qualitative research (secondary data, e.g., books, journals, and relevant research), and an in-depth interview with the involved executives or experts. A set of questionnaires was used as an instrument to collect data from 320 samples, i.e., Bangkok households from 50 subdistricts obtained by stratified sampling, followed by simple random sampling. Each stratum was similar to one another. And the data analysis relied on descriptive statistics and the structure equation model (SEM). The results showed that perceived usefulness and attitudes had positive effects on the intention to use electricity from solar energy in Bangkok households. The results would be useful for the public, private, and community sectors to use clean and non-polluting energy as an efficient renewable energy, which is increasingly required. In addition, this would help strengthen the security of national electricity and the administration for executives as well as managers at all levels to determine the visions, missions, policies, and strategic plans of their organizations to develop the solar energy industry for successful competitive strategies in the future.

**Keywords:** Intention to Use, Perceived Usefulness, Attitudes

#### INTRODUCTION

Electric energy is a key fundamental element for daily living and is vital for economic and social development, as it mainly drives the development of the agricultural, industrial, service, and facilitation sectors for their efficiency. Economic and social development and extension affects the continual need to use electric energy in economic activities in several aspects. Furthermore, such need tends to continue increasing [1]. Thus, finding a renewable form of energy has been a government priority that has been continually undertaken. Moreover, finding sufficient fuel reserves is for supply security, and for reducing the risks of relying on only a single fuel resource under reasonable prices and sustainability. If so, pollution could be controlled within the set standards of quality and acceptable cleanliness. This would also use limited national energy resources for the highest benefits [2]. With this in mind, solar energy is the most efficient and suitable form among all kinds of renewable energy sources. That is because Thailand is located in the equatorial zone, which receives sunlight all throughout the year. However, the volume of electricity generated from a solar rooftop is still insufficient. Presently, the government gives precedence to the continual use

of renewable energy. As a consequence, the Power Development Plan (PDP) 2018 was set to announce the People's Solar Project on March 20, 2019. The Project focuses on the promotion of generating and using national renewable energy, particularly solar utilization [3]. Specifically, solar can be used in the forms of electric and thermal energy and can be transformed into traded energy. In addition, the Ministry of Energy has already set the framework of the Thailand Integrated Energy Blueprint (TIEB) consisting of 1) energy security to fulfill the volume of the need for energy conforming to the rate of economic growth and suitable distribution of fuel proportion, 2) the economic aspect under the consideration of the suitable cost of energy with no obstacles toward economic and social development, and 3) the *environmental aspect* with the purpose to increase the proportion of national renewable energy and generate energy by using high technology to reduce the effects on the environment and communities [2]. Therefore, this study concentrated on the perspectives of the people as consumers with the intention to use electricity from a solar rooftop. The variables relevant to the consumers were set, i.e. perceived usefulness and attitudes influencing the intention to use electricity from solar energy in Bangkok households. These variables led to the solutions of energy use in households, which were the main users of the country, and to concretely reduce pollution from combustion in the electricity generating process in compliance with the PDP.

#### **OBJECTIVES**

- 1. To study the levels of perceived usefulness and attitudes influencing the intention to use electricity from solar energy in Bangkok households.
- 2. To study the influences of the variable of perceived usefulness and attitudes influencing the intention to use electricity from solar energy in Bangkok households.
  - 3. To present the form of intention to use a solar rooftop to the relevant agencies.

# LITERATURE REVIEW

# Intention to use

Deciding to choose the best and the most useful items is consumer behavior that most marketers pay attention. Human behavior is caused by intention, which is used to understand behavior, e.g., purchase behavior [4]. Xiao et al. [5] stated that consumer intention to purchase is caused by personal feelings. Marketing activities also play a key role toward consumption behavior. Febina et al. [6] also studied the effects of promotion by using celebrities through perceived value affecting the purchase intention of users. The variables included promotion by using celebrities, perceived value, and the purchase intention. It was found that perceived value had direct and positive influences on the purchase intention.

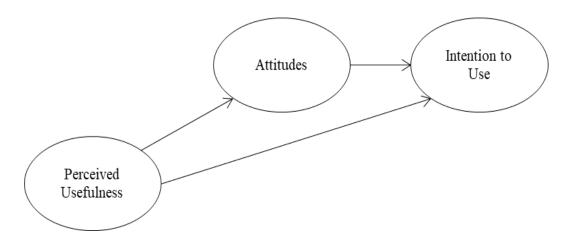
# Perceived usefulness

The factors leading to the purchase intention from perception, awareness of the efficiency from use, enhancement of the work efficiency to increase products [14], and convenience from use are all key factors affecting the intention to use and consumer satisfaction [15]. Perceived usefulness occurs when consumers are satisfied with the products/services. Their satisfaction occurs from the expectation before using each type of product/service. Marketers can use the communication concept of the 7Cs as a tool to design the methods of creating knowledge as well as insights to consumers, so that they understand the substances of the products/services, which would finally lead to a future purchase intention. The 7Cs of communication consist of 1) completeness, 2) conciseness, 3) consideration, 4) concreteness, 5) clarity, 6) courtesy, and 7) correctness) [16].

#### Attitude

An attitude is an individual's belief and positive/negative feeling toward a certain item affecting his/her expressed behavior [17]. The thoughts and beliefs of consumers toward products are what marketers need in order to strengthen the positive beliefs toward their products [18]. Armstrong et al. [10] stated that the motivation of consumer attitudes toward products/services was to motivate through perception, learning, beliefs, and attitudes. Beliefs and expectation are the key factors that make consumers feel more confident in their thoughts and feelings. This further conformed with Al-Swidi et al. [19], who studied the variables of the subjective norm on the intention to consume organic food. It was found that the subjective norm was a key factor causing positive or negative attitudes toward organic food finally resulting in a future purchase intention.

Figure 1 Conceptual framework.



According to the literature review, the research hypotheses were set as follows:

H1: Perceived usefulness had a direct influence on attitudes.

H2: Perceived usefulness had a direct influence on the intention to use.

H3: Attitude had a direct influence on the intention to use.

# **METHODOLOGY**

Mixed methods were used for the research implementation. To clarify, quantitative research was utilized for the data collection by using a questionnaire to obtain the answers about the concepts from the samples of solar energy users in Bangkok households. The qualitative research relied on secondary data, e.g., books, journals, and relevant research, and an in-depth interview with experts in the solar energy industry as the representatives of the public and private sectors was also conducted.

# Population and samples

The sample size or the amount of the population in the research was considered with the relevant independent variables and was estimated as the ratio per the number of the variables. Stevens (1986) stated that the sample size or the population must be considered with the number of the independent parameters for the estimated values. The ratio of the studied variable should be 20 samples per one variable (20:1) [20, 21]. Therefore, there were 320 samples of Bangkok households (20 x 16 = 320) [22] from 50 subdistricts obtained by stratified sampling, followed by simple random sampling. Each stratum was similar to one

another. With regards to the qualitative research, an in-depth interview with open-ended questions was used. The population was set as 10 respondents from the group of executives in the solar energy industry as the representatives of the public and private sectors in order to confirm the congruence and relationship of the findings from the analysis of the quantitative research.

# Research instruments and scale design

The questionnaire was designed based on the literature review, with a five-point Likert scale (Table 1). Then, it was brought to be examined by five experts, i.e., academicians and executives from the solar energy industry to find the index of item-objective congruence (IOC) in order to examine the congruence between the designed questions and the research objectives. After that, the revised questionnaire as per the suggestions from the experts was conducted with 30 samples. Next, it was examined for the reliability of Cronbach's alpha, which should not be below 0.7.

Table 1 Scale design and question development from the research.

Latent Variables	Empirical Variables	Question Development from the Research
Perceived Usefulness	PU1: Satisfy needs	5, 14, 26
	PU2: Ease of use	
	PU3: Save more money	
	PU4: Energy saving	
Attitudes	AT1: Pleasant	19, 27, 28
	AT2: Belief	
	AT3: Environmental concerns	
Intention to Use	IU1: Willingness to customize	24, 29, 30
	IU2: Recommend others	
	IU3: Perceived value	

# Data analysis

The significance or the accepted error  $(\alpha)$  in this research was set. During the statistical testing, a chance of errors of 0.05 could happen. As for the basic statistical analysis of the samples for the acknowledgement of the sample distribution, descriptive statistics were used, i.e., the mean, standard deviation (SD), coefficient of variation, skewness, and kurtosis. Pertaining to the analysis of the relationship between the variables, Pearson's product-moment correlation coefficient was used to find the relationship between those variables. Structural equation modeling (SEM) analysis was also taken into account. To explain, this is a model from the combination of the statistical principles of two types of linear analysis, i.e., path analysis and factor analysis [20].

#### RESULTS

The study on the influences of perceived usefulness and attitudes on the intention to use electricity from solar energy in Bangkok households revealed the level of the factors, form, and intention to use a solar rooftop for the relevant agencies. The interview with the executives of establishments in the solar energy industry and public agencies confirmed the analyzed data with the statistical significance. The indicators of the intention to use consisted of willingness to customize, recommend others, and perceived value. The indicators of the attitudes consisted of pleasant, belief, and environmental concerns. The indicators of perceived usefulness consisted of satisfy needs, ease of use, save more money, and energy saving. Thus, it could be inferred that the intention to use with willingness was behavior without being influenced by other people, including the intention to suggest those people to install a solar rooftop in their households for environmental conservation and its efficiency. This conformed to Yu and Lee [28], who found that consumer attitudes had direct and positive influences on the intention to buy waste materials. Likewise, Kim et al. [14] studied the consumer intention toward retail stores for the benefits of marketing strategies (Pop-up Retail). In examining the variables of consumer innovation, word of mouth, joy of shopping, product identity, convenience in decision-making, attitudes toward this type of temporary retail stores, and intention to patronage, it was found that product identity, joy of shopping, convenience in decision-making, and consumer innovation had positive influences on attitudes. In contrast, Teo et al. [14] found that perceived usefulness in male and female students had direct and positive influences on the attitudes and intention to use computers. Similarly, Fathema et al. [27] applied the theory of the technology acceptance model (TAM) and found that system quality, self-efficacy, need fulfillment, perceived ease of use, and perceived usefulness had positive influences on attitudes and the intention to use.

# CONCLUSION AND FUTURE RESEARCH

Solar energy is a natural, clean, and non-polluting energy, which is renewable with high efficiency and cannot be exhausted. Electricity generated from a solar cell has now become a necessity because it is a clean and endless form of renewable energy. Using solar energy for electricity generation does not only strengthen the security of Thailand's electric system, but also reduces the effects of global climate change. Furthermore, it is useful in the administrative aspect for executives or managers at all levels to set the visions, missions, policies, and strategic plans of their organizations for the development of the Thai solar energy industry. Concerning the aspect of competitive strategies, using solar energy could bring long-term advantages for success over competitors. Even so, further studies should be undertaken on technological disruption in other connecting industries, so as to be applied appropriately for further implementation in Thailand.

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# CREATIVITY OF ORGANIZATION AFFECTING THE INTERIOR BUSINESS OPERATION.

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#### **ABSTRACT**

The objective of this research was to study the meaning, significant and the creative idea of organization of the interior business operation. The benefit and creative application concept of organization in the interior business operation that from literature review of organization means the organization competency to create the valuable performance both products and services including the idea, finding procedure, working process and new solving problem method which is different and utilized better by co-working person in order to create the difference from competitor and able to build value-added for organization, significant creative idea of organization is the important to achievement of organization according to the knowledge, experience including integrated various information from the role of organization caused supporting, motivating and attracting through policy, strategy and procedure including the creating activities and context conditions of social and organization. Creating an atmosphere and working environment, working together as a team in order to all member levels to be able development their knowledge, ability and using their potential fully. The creative idea of organization such as the inside person composition which were comprised knowledge skill, specialized of technique skill, wisdom and specific competencies in operation and competencies in procedure relevant creative idea and caused really incentive for working. Outside person composition such as social environment which is that person is working, the benefit of organization creativities cause the organization can explore different thing new and utilized better before, having the ability to create valuable works both products and services including idea, exploration of process, procedure and new different solving problem method and utilized better before. Solving problem lead to build the organization to be able solving complex problem that there is new strategy development and push to change within organization to gain competitive advantage and growing continuously and sustainably

**Keyword:** Creative idea of organization, interior business

#### INTRODUCTION

Organization creativity was important that affecting to create innovation which was the key factor to increase competitiveness and cause the organization successful. Creative idea was be required to change from creative idea of personal level but covered corporate level including working environment of organization (Leigh, K. E., 2011) and organization creativity was more necessary for organization since tend to change rapidly and happen all the time including society, economy, population, and technology cause the big impact on the life style of people particular organization running business that faces violent business competition environment to respond customer's requirement including the result of technological change suddenly cause shortened life cycle of products and services which was the one of reason that affect the business of organization more susceptible to failure than the past

Even though many organizations operating business focuses organization creativity, it has barrier or restriction either from social or environment and culture. Vision free of organization clearly which the direction is organization going also it still does not know what has to do to hit the setting goal in addition still have barrier involving behavior and personal attitude including value with achievement and not accept the failure cause lack of challenging to do the new thing which extremely focus regulation and principle lack of flexibility cause do not dare to express the creative idea at corporate level related to huge number of relevant people who has ability, diversity of expertise caused obstacle; therefore, it is necessary to work together effectively to solve problem for organization and develop organization through better direction which organization has to change and seeking the guideline for managing organization for survival of organization competition in the business nowadays and the future intensify further

The creative factor of organization was the significant ability caused organization become the excellent and sustainability achievement. Creativity was the importance to society, economy and individual. Currently, it were been more attended consequently. In the part believed that creativity was limited in the art only afterward these belief was changed in the current. Many scholars believe that creativity was important foundation which was one thing importance of innovation management process as well as development the competency of human and competitiveness of nation in the globalization. Analytical unit of creativity were various level covered since individual, team, organization, nation, region and international or global (Donchanok Buenoy, 2016; therefore, it was necessary that organization were to adjust to find the guidance which was able to handle in the future. Creativity was important of organization caused organization were abilities to handle change and crisis occurred in order to create the organization's operation outstanding and difference from competitors included the innovation and novelty which was able to enhance value and competitiveness by affecting organization where can cope with rapid change in technology and society and it was the starting point that make business success and stainable then.

# 1. Creativity of organization

#### 1.1 Definition

Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993) gave the definition of creativity of organization meant creative new product, service, process or useful procedure by person who was working together in society complex system aligning with Sutipong Pongworn (2012) said that creativity was the new idea difference and useful than previous one and creative person tend to have question that were always searching for answers to new thing and Todsaporn Boonwachapai (2015) gave the definition of creativity of organization meant the ability of organization to create job (product and service including how to thing, process, procedure and how to solving problem) novelty, difference according to data,

knowledge and various experience that integration based on society context. Working complexity and relationship during factors in all level of organization since the past till current caused the supporting, motivating, attracting, policy, strategy and work instruction included creating activities and society context condition and organization (working atmosphere and environment) for all member level to develop the knowledge, ability and using their potential fully during action (interaction) of society occurred while working affected visibility of new opportunity and relationship that lead to the creation of innovative result happened together in organization. Creative will occur from knowledge and experience of each person that were accumulated knowledge and how much experience eventually these things will be pulled back to be used to solve problem and think of creative development. People who had learn more quiet had various experience will be able selection to use and find how to development and solving problems creative and perfect; therefore, learning together and exchange the opinion and idea together which was more proper way to develop the creative than working or thinking alone. Besides creativity of organization accept that was "creating value to new product and service which were the thinking process or procedure by person who works together in complex social system" (Woodman, Sawyer, & Griffin, 1993, p. 293 Refer to Puccio, G. J., & Cabra, J. F., 2010)

From the definition of creative of organization above cloud be summarized that creativity of organization meant organization capability to create valuable performance both product and service utilization included the idea, searching process, work instruction and new solving problem method that difference and useful than previous by person working together to create differentiation from competitors and ability to create value added for organization

# 1.2 Signification

Creativity of organization was necessary to business operation for organization to be able to support change and solving complex problem occurred that was the organization capability to create performance both product and service including idea, searching process, work instruction and new solving problems, to create differentiation from competitors and ability to create value added for organization in order to get competitive advantage and growth continuously align with Wu, C. (2016). To study about leadership of entrepreneur, creativity of organization and productivity of company role of China. Study result found that creativity of organization affected the productivity of company and Zhe, R. (2011) studied about alignment of organizational learning strategy and creativity of organization: empirical study got the studying result found that creativity of organization had related to the operation within organization and according with Peerawut Sisisak (2016) studied causal relation of leadership changing creativity within an innovative organization affected operation of organization: Study the Small and Medium Enterprise found that creativity in organization and innovation had direct influence operation of SMEs

Summarize that creativity of organization was importance to organization's success accordance with knowledge, experience and various information to integrate from organization's role which were occurred from supporting, motivating, attracting, policy, strategy and work instruction included creating activities and conditions of social context and organization's role, creating atmosphere and working environment, team work for all member levels to be able to develop knowledge, ability and using their full potential

# 1.3 Benefits of creativity of organization

Creativity was the new idea that was different and better utilized which organization were creative that often seek good and useful ways for responding to customer aligned with demand changed rapidly and more varieties. Creativity of organization was necessary in operation to encourage employees to have creative skill to create self confidence in order to develop capability for creative thinking, stimulated the commitment to work, modern and using free time to benefit which lead to create organization's capability to solve complex

problem, were to develop new strategy and driving to change within organization to get the competitive advantage and growth continuously and supporting the challenge to change of the world today

Creativity of organization was very useful for organization's operation which was the factor that organization focus as seen from ElMelegy, A. R., Mohiuddin, Q., Boronico, J., & Maasher, A. A. (2016) conducted the study on promoting creative environment: empirical study of architecture company in Saudi Arabia, the research studied the factor affecting the creativity of organization in architecture company in Saudi Arabia on the context t of Amabile Theory that result found that knowledge expansion and understood creative environment which was the factor affecting the creative thinking and Lai, K. S., Yusof, N. A., & Kamal, E. M. (2016) studied and analyzed the survey factor found that there were 4 cultural dimensions as 1). Behavior to support an innovation 2). Freedom 3). Working together as the team work and 4). Individualism. Research result regarded the behavior to support an innovation and working together as team work was the important part. These architecture company; moreover, the finding also revealed a lack of freedom and individualism within architecture company in Malaysia so strategy in the future should focus on promoting the freedom and individualism in architecture company to encourage innovation particular in context of developing countries

Summarized that creativity of organization was concept that beneficial to organization by thinking the new thing that difference and better utilized caused the organization capability to create the valuable performance both useful product and service included idea, process, work instruction and new solving problem method that difference and better utilized. However, business operation had to promote employee to have creative thinking skill to create self-confidence when developed capability for creative thinking, stimulated commitment to work, to be modern and used free time useful which led to create organization had capability to solve complex problem, had new strategy development and driving changed within organization to get competitive advantage and continuous and sustainable growth

# 2. Creativity of organization character

Concept of creative character according to concept of Guilford, J.P. (1968) was the ability of brain in thinking in many direction many facet, wide thinking called Divergent thinking had 4 components were 1). Originality 2). Fluency 3). Flexibility and 4) Elaboration aligned with Apichart Nenphom (2016) summarized characteristic synthesis result or personal which had creativity, thinking dimension had the detail and component as 1). Originality was the capability of thinking that observation from strange and new ideas of answer differentiation from normal had unique, not redundant with idea from existing but the answer optimized to problem 2) Fluency was the ability in thinking that observation think that many ideas was thinking result from number of answers that received in a limited time 3). Flexibility was ability in thinking that observation from various answers in different ideas, types and directions, these had a wide view perspective, not limited to one particular aspect 4). Elaboration was the ability of thinking that observed from detail or process had explanation or adding onto ideas to original stimuli that had more detail and clear

Model of thinking creativity characteristic covered both social and philosophy that was necessary to individuals in production of creative work according to concept of Amabile, T.M.(2012) said the components of creative thinking theory consisted by 4 components which were necessary for creative response in which 3 components were person inside element such as 1). Domain-relevant skills included knowledge, expertized technical skills, wisdom and talents 2). Creativity-relevant processes and 3). Intrinsic task motivation another component was person outside element for instance social environment that person was working

Components of thinking creativity characteristic of Tosaporn Boonwacharapai (2015) developed multi-dimension element to support ability caused the creative thinking and service innovation in 6 areas which were Novel idea flow, Challenging work, Freedom of work, Proactive change, Continuous learning and Creative connection

Summarized that components of thinking creativity characteristic, person inside element and person outside element. Person inside element consisted the skill of knowledge, expertized technical skills, wisdom and specific competencies in operation, capability in process of creativity and intrinsic task motivation. Inside person element were social environment that person was working in addition creativity of organization might consist Novel idea flow, challenging work, freedom of work, proactive change, continuous learning and creative connection

# 3. Concept of applying to creativity of organization in interior design business operation

Creativity of organization was component to increase capability of organization to maintain the competitive advantage (Oiszak, C.M., Bartus', T., Lorek, P., 2018) particular interior design business operation which was falling design to decorate various areas included decorative product design in building for example decorative area in the building, house, condominium, office, booth, restaurant, hotel, trade show area and exhibition, and various exhibitions included interior display in cabinet of department store also the area in the motor vehicle, passenger ship, aircraft, bus etc. Interior design business was the integration idea and knowledge of design, production, marketing and art mixed together both art and design, construction, technology and environment included marketing and customer's requirement to integrate to build and use as the objective in interior business operation by specifying the detail of components, layout arrangement including supervise the work of the interior technician as well (ThaisSMEsCenter, 2017); therefore, interior design business operation necessary had the person which had the creative thinking, unique and be cautious working, to be able taking various materials applying to design job properly and highest benefit also there had computer skill to apply with creative design job, self-discipline and understanding of business service, to be able working with other person and team work, good relationship with colleagues, vision, enthusiasm to develop ability and knowledge, having sourcing materials knowledge, to be able design interior correctly according to principles and customer's requirement based on safety and optimal price

Creative application was the factor affecting the organization success especially interior design business operation still had a good return and this was the job using the specialized skill. Running business could start with someone who was able of interior design by themselves and no needed to invest a huge amount for one time also in the future of business operation still had direction and could be growth together with real estate business which trend was growing more and more. However, the thing was important for this career to make profession successful and faster which was the creative thinking, experience and developed skill to be more distinctive than competitor who was interior design business accordance with Öztürk, G. B., Arditi, D., Günaydın, H. M., & Yitmen, İ. (2016) studied the corporate knowledge and performance of architectural design company in Turkey. The research result found that the learning scope in person level had positive effect on learning level. The project affected the learning level of company and Lang, J. C., & Lee, C. H. (2010) studied the atmosphere in organization by studying humor at work and creativity of organization which was becoming the interesting topic for manager which was necessary to understand more role of humor to work efficiency by studying the relation between humor and creativity or organization. Research result concerned that release of humor and controlling humor related to creativity of organization

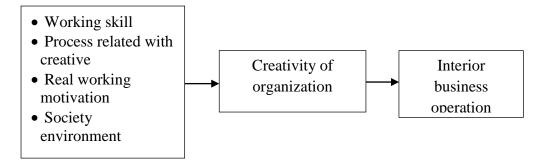


Illustration 1. Concept of applying to creativity of organization in interior design business operation

Summarized that the creativity of organization had influence interior design business operation which still was growth to align with real estate business and there was growing trend continuously; however, interior design business operation was necessary to develop themselves to be creative organization according to creative person, knowledge skill, specialized design skill, wisdom and specific competencies in operation, ability in creativity process and intrinsic task motivation, unique, to be cautious working, social environment to support creativity thinking for interior design business operation which was idea integration and knowledge of design, production, marketing and art mixed together both art and design, construction, technology and environment included marketing and customer's requirement integration caused business operation successful in which the organization created distinctive from competitor and created value added to organization led to competitive advantage and continuous and sustainable growth

# **CONCLUSION AND DISCUSSIONS**

This article had literature review related the definition, significance and characteristic of organization creativity in term of benefit creativity of organization application in interior design business operation for person who was interested understood in various dimension or creativity of organization affected entrepreneur took this creativity of organization to apply for operation efficiency and to create a sustainable competitive advantage

Creativity of organization meant capability of organization to create valuable performance both utilized product and service including the idea, finding process, work instruction and new solving problem method and better utilized by person who worked together with, to create distinctive from competitors and to be able creating value added, the importance of organization creativity had importance to organization successful accordance with knowledge, experience and various information to integrate from role of organization caused supporting, motivating, attracting by policy, strategy and work instruction along with creating activities and role of social and organization, creating atmosphere, working environment, team work together for member all levels who could develop knowledge, ability and their full potential. Creativity characteristic of organization consisted 2 main components as inside person component which was consisted by knowledge skill, specialized of technique skill, wisdom and specific competencies in operation and competencies in procedure relevant creative idea and caused really incentive for working. Outside person composition such as social environment which was that person was working; moreover, it might have the characteristic composition as novel idea flow, challenging work, freedom of work, proactive change, continuous learning and creative connection in term of benefit of creativity of organization caused organization to be able searching the new thing difference and using better utilized and to create valuable performance both utilized product and service and idea, process, procedure and new solving problem method differencing and using better utilized to solve problem; therefore, the business operation had to promote the employees to have creative skill for create self-confidence when developed capacity for creative thinking to motivate the enthusiasm working, to be modern, and using free time to benefit led to creation of organization capable of solving complex problem, developed new strategies and driving change in organization for getting competitive advantage continuous and sustainable growth

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# FACTORS AFFECTING AATTITUDES TO PURCHASE MOBILE GAME PRODUCTS OF CUSTOMERS IN BANGKOK, THAILAND.

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#### **ABSTRACT**

The research was aimed to study the influence of price utility, functional quality, playfulness, perceived technology security, effort expectancy, trust, performance expectation and perceived risk towards customers' attitude to purchase products of mobile game in Bangkok, Thailand. The respondents were 400 customers in Bangkok. The data collection was done in January-March 2020. The data were analyzed using multiple regression analysis. The results found that the majority of respondents who answered the questionnaire were male aged 11 – 35 years, and single status. Most of them were private employees / professional contractors, and some were studying. The frequency of buying mobile game products was 3-4 times per month. The pre-paid card was used as main purchase channel. The equipment used to purchase mobile game products was smartphones. The average amount spent on each purchase was 25 - 2,000 baht. The regression analysis results found that price utility ( $\beta$  = 0.719), playfulness ( $\beta = 0.630$ ), and perceived technology security ( $\beta = 0.523$ ), explained 85.1% of the positive effect toward attitudes' customers to purchase mobile game products with statistical significance at level .001. Consequently, an entrepreneur or a marketing manager should plan strategies by focusing on such issues since it will attract the customers to purchase mobile game products.

Keywords: Mobile Game, Attitudes to Purchase, Customer Attitudes

#### INTRODUCTION

Digital games are a part of the entertainment media, which can be accessed by every age of people. Although, there are some games that may be limited to the age to play. This may be due to their content and language use within the game that may not be suitable for specific age.

Market of digital games has grown steadily. The global game market has a year-on-year growth rate of approximately 30% with money circulating as over 16 billion US dollars. In 2018, the value of the global game market consisting of online games, computer games, and console games has a combined figure up to roughly 140 billion US dollars. The number is approximately a quarter in Chinese game market. Digital global game market in 2018 showed revenue of nearly 125 billion US dollars or 91% of the global revenues from mobile games are rated virtually 70 billion US dollars, while tablet games valued almost 14 billion US dollars, whereas smartphone games earned practically 56 billion US dollars. According to forecasts in 2021, mobile games have a half share of the entire game market or reach a 100-Billion-Dollar Market (Wijman, 2018).

For PC, Console, and Handheld Games, in the past, it was necessary to install or insert discs to play the game, called Boxed Game or Physical Purchase Game. It may be a complicated matter for some people. In addition, it is very difficult to find the game discs you want. Besides, it is problematic to find a store that has the game discs for sale. There is changing into an online ordering system to remove the disadvantages at this point. Playing the game using the disc, however, still has many drawbacks, for example, game disc maintenance or the necessity to change game discs to play another game. For the price, rare game discs had higher price than popular game discs in the market, or those games were created for Niche Market. Currently, this creates a new way to buy new games, Digital Download Games. The game is online and there is no need to use discs anymore. Once purchased, the gamer can download and install to play the game immediately. When wanting to change a game, just exit that game to open the new game you want instantly without having to change the disc anymore. For buying games in today's digital age, consumers can buy through various websites, distributors, social media or applications on a computer, console and handheld game machine. When consumer behavior has changed, the Box Game has decreased its revenue due to changes in consumer gaming behavior (CBS Interactive Incorporated, 2020).

As analyzed above, buying digital download games, including mobile games, is more appropriate for today's era than buying boxes or discs. When dividing game console types, each game console will have a digital distribution software service to assist as a service center for consumers to purchase licensed game software via the internet. As a result, mobile games are very interesting in the game market.

In Thailand, mobile game popular, representing approximately 30 million Thais play these games (Prachachat, 2020). Therefore, the researchers are interested in studying that what are the factors that positively affect the attitude of buying mobile game products of consumers living in Thailand. The researcher used various factors that were studied in foreign countries come to apply this study as shown in the conceptual framework. The researchers expecting that the findings from this study will benefit the business related to digital games download to be a guideline for developing online products and meeting the needs of consumers.

The study aims to investigate factors that affect customers' attitude to buy mobile game products in Thailand. This can lead to understand consumers and develop marketing plans that affect customers' attitude to buy products in online games in Thailand.

# LITERATURE REVIEW

#### 2.1 Mobile Games

Mobile game is a game the players can play on their smartphones and it is very popular today. So, selling the digital products in game is interesting business at the moment. The customers can buy such products via several methods, such as prepaid card. Google Play is a service provider for mobile game payment. It is developed by Google, using the Android operating system on the mobile device. The users can browse to buy and download applications from the Google Play page. Google Play also functions as digital media that provides music, magazines, books, movies, and television programs - not just selling digital games download. The application can be downloaded and installed on smartphone (Google Play, 2020). Downloading digital games, whether on whatever platform, is based on the product's copyright (Department of Intellectual Property, 2020).

# 2.2 Attitude to purchase

Das (2014) defined that consumer attitudes can be regarded as an assessment of the likelihood or usefulness of operations. Attitude plays an important role in consumer education because it influences the thoughts, feelings, and steps of consumers' decisions, which is the most important thing. The attitude to purchase has a connection between attitude and intention to buy products and services differently.

# 2.3 Determinants affecting attitude to purchase

Ziestman et al. (2019) found that price utility positively impacted the customers' decision to use the services. Wibowo et al. (2019) found that product performance was important to customers in making decision to purchase dairy products. Ryu and Park (2018) found that perceived playfulness affected the customers' attitude to pay to download movies. Oliveira et al. (2016) indicated that technological security concerns are a deterrent to the intention to use e-commerce. Chopra (2019) found that effort expectancy motivates young consumers in shopping decisions. Oliveira et al. (2017) stated that trustfulness refers to the attitude of people who have expectations about the risks on trading online that can be benefits to the reliability of people who sell products online. Abrahão, et al. (2016) suggested that firms needed to respond the performance expectation of customers to motivate the usage of products and services, for example, the improvement of technological online service can provide smartphones users with the convenience. Harbeck et al. (2017) presented the risk perception theory by proposing the processes which may lead to risks, such as recognition and awareness of risks, risk level assessment, and willing behavior to accept risk levels.

# 2.4 Hypothesis Development

There are eight hypotheses, as shown in Figure 1– the conceptual framework, as follows:

- H1: Price utility positively affects to attitude to purchase mobile game products.
- H2: Product performance positively affects to attitude to purchase mobile game products.
  - H3: Playfulness positively affects to attitude to purchase mobile game products.

- H4: Technological security positively affects to attitude to purchase mobile game products.
  - H5: Effort expectancy positively affects to attitude to purchase mobile game products.
- H6: Trustfulness utility positively affects to attitude to purchase mobile game products.
- H7: Performance expectation positively affects to attitude to purchase mobile game products.
- H8: Perceived risk utility positively affects to attitude to purchase mobile game products.

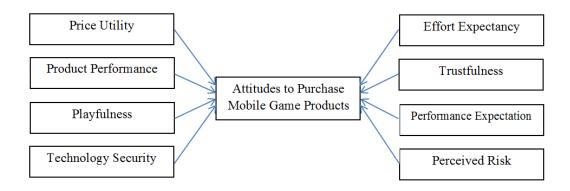


Fig. 1 Research Framework

#### RESEARCH METHODOLOGY

# 3.1 Samples and data collection

The sample size was calculated according to Partial R2 of Cohen, (1977) to ensure the sufficient samples. As a result, 400 samples were asked to answer the questionnaire. In this study, the sample selection is based on non–probability sampling by using convenience sampling as consumers, who used to buy mobile game products, in Thailand during the January-March 2020.

# 3.2 Research Instrument

The questionnaire used five-rating Likert scale to measure interval scale data. It comprised 36 items divided into 9 dimensions, comprising Price Utility (PU), Product Performance (PP), Playfulness (PF) Technological Security (TS), Effort Expectancy (EE), Trustfulness (TF), Performance Expectation (PE), Perceived Risk (PR), and Attitude towards Purchase (AP). Each dimension consisted of 4 items, as detailed as follows.

First, PU's 4 items included "The mobile game items sold are reasonably priced", "The mobile game items sold are money worthwhile", "The mobile game items sold are good priced when compared to other products", and "The mobile game items sold are considered economical price". These items were adjusted from the previous study by Lee et al., (2011).

Second, PP's 4 items included "The mobile game items sold have acceptable standard quality", "The mobile game items sold are reliable in their performance, "The mobile game items sold are good in terms of their overall excellence", and "The mobile game items sold Copyright © 2020 by the 1st International Conference on Management, Innovation, Economics and Social Sciences. 950

possess the satisfactory quality". These items were adjusted from previous study by Lee et al., (2011).

Third, PF's 4 items included "Using the mobile game items sold arouses my imagination", "Using the mobile game items sold gives me fun", "Using the mobile game items sold is interesting to me", and "Using the mobile game items sold stimulates my curiosity". These items were adjusted from previous study by Lee et al., (2011).

Forth, TS's 4 items included "I would feel secure sending sensitive information across mobile game mobile payment", "mobile game mobile payment is a secure means through which to send sensitive information", "I would feel totally safe in providing my sensitive information over mobile game mobile payment", and "Overall mobile game mobile payment is a safe". These items were adjusted from previous study by Oliveira et al., (2016).

Fifth, EE's 4 items included "I would feel secure sending sensitive information across mobile game mobile payment", "mobile game mobile payment is a secure means through which to send sensitive information", "I would feel totally safe in providing my sensitive information over mobile game mobile payment", and "Overall mobile game mobile payment is a safe". These items were adjusted from previous studies by Khalilzadeh et al. (2017) and Abrahão et al. (2016).

Sixth, TF's 4 items included "I believe mobile game mobile payment service providers keep their promise", "I believe mobile game mobile payment service providers are trustworthy", "I believe mobile game mobile payment service providers keep customers' interests in mind", and "I believe mobile game mobile payment service providers secure transactions for users". These items were adjusted from previous study by Khalilzadeh et al. (2017).

Seventh, PE's 4 items included "I believe mobile game mobile payment would be a useful service in my day—to-day activities", "I believe mobile game mobile payment would make me perform my financial transactions more quickly", "I believe mobile game mobile payment would save time so I can do other daily activities", and "I believe mobile game mobile payment would bring me greater convenient". These items were adjusted from previous study by Abrahão et al. (2016).

Eight, PR's 4 items included "I wouldn't feel completely safe by providing personal information through mobile game mobile payment system", "I'm worried about the future use of mobile game mobile payment services because other people might be able to access my data", "I don't feel protected when sending confidential information via mobile game mobile payment system", and "The likelihood that something wrong will happen with mobile game mobile payment systems is high". These items were adjusted from previous study by Abrahão et al. (2016).

Ninth, AP's 4 items included "Using the Internet to buy mobile game products is good idea", "I like the idea of buying mobile game products via the Internet.", "It is favorable for me to purchase mobile game products online.", and "It is a pleasant experience in using the Internet to purchase mobile game products". These items were adjusted from previous study by Law et al. (2016).

Index of Item Objective Congruence (IOC) was used to inspect the content validity of questions, including clearness, coverage, and language accuracy. Some questions, however, were unclear so that the experts gave recommendations in adjusting those questions to be consistent with the context of customers buying mobile game products. The researchers, moreover, tried out research instruments with 30 customers who were not the sample to inspect reliability by considering internal consistency based on Cronbach's alpha coefficient of summed scale questions, which were between 0.86-0.94 so that it was acceptable, as suggested by Streiner and Norman (1995).

# 3.3 Data Analysis

Inferential statistics are used to analyze bivariate correlations among variables by Pearson's correlation coefficients. The variance inflation factor (VIF) and Tolerance analysis was conducted to check for multicolinearity. The result indicates that VIF values ranged from 1.617 to 4.344, which were lower than maximum limit of 10, and Tolerance ranged from 0.549-0.634, which were close to 1. As a result, it was acceptable for multicolinearity check (Dohoo et al., 1997). Then, the multiple regression analysis was performed by specifying statistical significance at Level .01, which the researcher collected the questionnaire from the sample and then processed by using SPSS. The descriptive statistics uses percentage to describe general information of respondents.

#### RESULTS AND FINDINGS

The results found that the majority of respondents who answer the questionnaire are male aged 21-35 years old, single, with education in bachelor and master degree, most of them are private employee / professional contractor occupation, frequency of buying mobile game products is 3-4 times per month, purchase channels is pre-paid card, the equipment used to purchase mobile game products is smartphones, average amount spent on each purchase is 25-2,000 baht. The regression analysis results indicated price utility ( $\beta=0.719$ ), playfulness ( $\beta=0.630$ ), and technological security ( $\beta=0.523$ ), explaining 85.1% of the positive effect toward attitudes to purchase mobile game products of the customers with the significant level at .001, as shown in figure 2. While, it was found trustfulness ( $\beta=-0.504$ ), perceived risk ( $\beta=0.501$ ), performance expectation ( $\beta=0.498$ ), product performance ( $\beta=-0.495$ ), and effort expectancy ( $\beta=-0.487$ ) had no statistical significance.

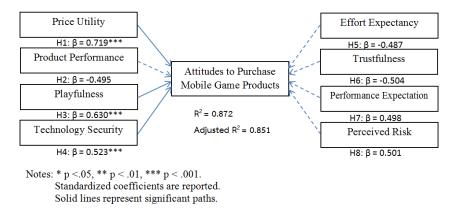


Fig. 2 Regression Result

# CONCLUSION AND DISCUSSIONS

The results indicate that price utility, playfulness, and technological security affected the customer's attitude to purchase mobile game products. As a result, hypothesis 1 - Price utility positively affects to attitude to purchase mobile game products, hypothesis 2 - Product performance positively affects to attitude to purchase mobile game products, and hypothesis 4 - Technological security positively affects to attitude to purchase mobile game products are supported. Moreover, the findings depicts that hypotheses 2, 5, and 6, representing the negative effects of product performance, effort expectancy, and trustfulness on attitude to purchase mobile game products, and hypotheses 7-8, representing the positive effects of Copyright © 2020 by the 1st International Conference on Management, Innovation, Economics and Social Sciences.

performance expectation and perceived risk on customer's attitude to purchase mobile game products, are not supported. These findings are consistent with the studies of Zietsman et al. (2019), Ryu and Park (2018), and Oliivia et al. (2016). However, the results is not in line with the study of Harbeck, et al. (2017), which found that the perceived risk, consisting of the risk awareness, the risk assessment, and the willingness to accept risk, impacted the customer's attitude to buy goods. This might cause by the security in sustaining the mobile game account. It is difficult to steal others' accounts since they are linked with email and Facebook. It reflects that the customers had the confidence towards online products by now.

For the practical recommendation, entrepreneurs or marketing managers should use the results of this research to plan and develop marketing strategies by focusing on the recognition of price utility, playfulness, and technological security. Moreover, future studies on factors affecting the customer buying decision, especially in the context of online-game products in Thailand, are still required. The followings are interesting issues: first, marketing promotion by creating proposals or conditions to encourage the fun and follow-up in using the service continuously, second, excellent customer care by using the strategy of customer retention process with the quality of services. The firms need to offer customers impressive products and services to maximize the customer satisfaction (Aunyawong et al., 2020), and finally, as marketing efficiency will occur and can be sustained with the confidence and trustfulness (Aunyawong et al., 2018). Therefore, the business must emphasize and show its position to the customers by providing transparent services, fair follow-up, and regular monitoring.

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# TECHNOLOGY FACTORS AFFECTING TOURISM DESTINATION LOYALTY; A CASE STUDY OF DAMNOEN SADUAK FLOATING MARKET, RATCHABURI, THAILAND

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# **ABSTRACT**

This paper studies technology factors that affecting the tourism destination loyalty in Damnoen Saduak Floating Market, Ratchaburi, Thailand. The objectives of this paper were (a) to evaluate the technologies that affecting the tourism destination loyalty in three categories: services, transportation, tourist information and (b) to study technologies that affecting the tourists in selecting Damnoen Saduak Floating Market as their next travel destination. Finally, (c) to investigate if there are difference in overall of technology friendly in terms of age, gender and level of education. The respondents were 400 tourists who visiting Damnoen Saduak Floating Market in Ratchaburi Province, Thailand. The data was collected by using a questionnaire (Questionnaire) as a tool in this study. The questionnaires were analyzed by using the [14] Taro Yamane (Taro Yamane) formula and the statistic instruments that the researcher used to analyze the hypothesis is Chi-Square Test, Independent Sample T-Test and the ANOVA (Analysis of variance) which were analyzed by using the software program to process the data. The research results indicated that most of the sampling was male age between 24-33 years old, with a single status, and a monthly income between 35,001 -40,000 Baht at 39 percent. Their education level is Graduated degree which is accounted for 27.25 percent. Most of the sampling were an employee of the private company, and their purpose of travelling is for relaxing on their holiday. They perceived their news from the internet and decided to visit floating market as highest score and as high as 94 percent of them would revisit floating market as their travel destination in Thailand. Finally, analysis of variance (ANOVA) showed that in terms of tourists' age, gender and educational level did not lead to significance in overall technology friendly and to destination loyalty.

**Keywords:** Technology, Tourism Destination Loyalty, Damnoen Saduak Floating Market

# **INTRODUCTION**

An excessive number of tourists has visit Thailand for many years. However, in developing tourism destination loyalty, an increasing of a revisiting number of tourists should be taken into account. There are many factors that tourists will consider in revisiting Thailand for their travel next time. Their experience of the products, services, conveniences during their stay as well as their experience with the quality of tourism management has to be considered in developing tourism destination loyalty accordingly. [1] According to the Ministry of Tourism and Sports of Thailand (2019), the overall tourists from East Asia to Thailand is as much as 25 million visitors from the total international tourists visited of 38 million people in the year 2018. The highest number of tourists from East Asia came from China, followed by Korean visitors and Japanese visitors respectively. The following group Copyright © 2020 by the 1st International Conference on Management, Innovation, Economics and Social Sciences.

of tourists came from Europe which was accounted for 6.7 million visitors, then The Americas which was accounted for 1.6 million visitors, followed by South Asia at 1.98 million visitors, Oceania at 0.9 million visitors, Middle East at 0.73 million visitors and Africa at 0.23 million visitors respectively. As tourism industry play an important part in economics of the country, therefore, each country has to strengthening their competitiveness in order to increase the tourists and stimulate economics in their country from tourism industry. As well as Thailand, it has formulated the National Strategies and integrating tourism as part of economic development, called Thailand 4.0 which is government's economic development model based on a vision of "Stability Prosperity and Sustainability". Whereas, [2] Ayuwattanachai (2017) mentioned that Thailand's National policy is transforming the economy from "commodity base economy" into a "value-based economy" or "innovation-driven economy.

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Today, it is broadly known that tourism industry plays an important role in economic development of many countries. From the study of [3] Tagenggsak Chaichan, (2013), said that if any country has a clear strategic development plan based on a strong economy, good infrastructure, abundant of natural resources and a potential tourism personnel, then there will be an important factor that will help drive the country to develop tourism growth. Referring to, [4] The Tourism Authority of Thailand (TAT) (2018), secondary destinations is part of TAT's strategic plans introduced. The Tourism Authority of Thailand (TAT), has outlined action plans to encourage travelers to continue to visit secondary provinces. More attractions and tourist activities in secondary provinces will be promoted in overseas markets to lure tourists to less crowded cities. These 55 provinces, are defined as following; Northern region, 16 provinces which are; Chiang Rai, Phitsanulok, Tak, Phetchabun, Nakhon Sawan, Sukhothai, Lamphun, Uttaradit, Lampang, Mae Hong Son, Phichit, Phrae, Nan, Kamphaeng Phet, Uthai Thani and Phayao. Northeast region 18 provinces, which are; Udon Thani, Ubon Ratchathani, Nong Khai, Loei, Mukdahan, Buriram, Chaiyaphum, Sisaket, Surin, Sakon Nakhon, Nakhon Phanom, Roi Et, Maha Sarakham, Bueng Kan, Kalasin, Yasothon, Nong Bua Lam Phu and Amnat Charoen. Central, eastern, western region 12 provinces, which are; Lop Buri, Suphan Buri, Nakhon Nayok, Sa Kaeo, Trat, Chanthaburi, Ratchaburi, Samut Songkhram, Prachin Buri, Chai Nat, Ang Thong and Sing Buri. Southern 9 provinces, which are; Nakhon Si Thammarat, Phatthalung, Trang, Satun, Chumphon, Ranong, Narathiwat, Yala and Pattani. Moreover, Tourism Authority or Thailand (TAT) has curated three concepts for promoting the group of 55 secondary destinations in an environmentally-friendly way. The three tourism promotion concepts for the secondary destinations which identified by [4] The Tourism Authority of Thailand are:

**Local Experience:** Provide visitors with an in-depth experience; such as, community-based tourism, lifestyle, wisdom, local identity and distinction of each area.

**Future Challenge:** Secondary cities have enormous potential to expand their economies and boost the income of the local people if the tourism industry is developed in a sustainable and well-planned manner.

**Connecting Destinations:** Connecting Thailand's big cities with smaller cities and also connecting them with neighboring countries. There are 29 destinations adjacent to the primary cities, 22 airports in these destinations, and 10 destinations with immigration checkpoints.

The promotion is in line with the government's policy to promote and strengthen the tourism sector with inspiring attractions, strengthen the foundations of tourism, and make it a major source of progress in the secondary destinations nationwide.

Ratchaburi province, is one of the 55 secondary cities that has many tourist attractions. One of the most famous is Damnoen Saduak Floating market. [5] As the floating market is one of the most popular travel destinations in Thailand. It has become primarily a tourist attraction which offering a unique and infectiously chaotic market with a historical attraction. In the past, daily commerce in Thailand was conducted mostly along rivers and canals (or khlongs in Thai). Bangkok's water network was busy and served as the principal means of communication causing Bangkok to be called as the "Venice of the East" by early European visitors. The data from [5] The Tourism Authority of Thailand, Damnoen Saduak Floating Market in Ratchaburi is one of the most popular floating markets in Thailand. Every day many Thai and foreign tourists travel here to shop, eat, and absorb the atmosphere of Thailand water markets that have been like this for 100 years. Klong Damnoen Saduak Damnoen Saduak is the straightest and longest canal in Thailand. The canal was built on royal initiative as King Rama IV of Thailand wanted to link the Mae Klong River with Chinese river ways to support transportation and trade. It took over 2 years to dig, and was eventually finished under the reign of his successor King Rama V. The canal is 32 kilometers long and has more than 200 branches. Damnoen Saduak Floating Market's popularity grew to new heights in 1971-1973 when the river was full of farmers on their boats selling their wares. And that is the way trade is performed in this area until todays. The Damnoen Saduak Floating Market is 110 km (68 mi) west of Bangkok, in Ratchaburi province and about 40 minutes by car to Nakhon Pathom. Unlike most of the other floating markets, the popularity of Damnoen Saduak attracts many fruit sellers rowing their boats along the narrow canals, meaning that you're guaranteed great pictures. There is plenty of tasty food to try along the docks, from freshly-made mini coconut pancakes to boat noodles in their rich meaty broth. The highlight selling point are wonderful colorful and vibrant market as well as a different way of shopping because the floating market was fun, safe and interesting. Tourists can enjoy the long tail boat and seeing the local people houses along the canal.

The Tourism Authority of Thailand [6] has created the Amazing Thailand Go Local Project and adjusted the proportion of visitors from major cities to secondary cities, from 70:30 to 65:35, which focuses on creating a local identity and organize activities to stimulate travel in secondary cities. Strengthening the community. Therefore, the country has to manage domestic tourism seriously.

This is why the researcher realized the importance of tourism industry and want to study about technology factors that affecting the tourism destination loyalty in Damnoen Saduak Floating Market, Ratchaburi, Thailand.

# RESEARCH OBJECTIVES

- 1.To evaluate the technologies that affecting the tourism destination loyalty in three categories: services, transportation, tourist information.
- 2.To study technologies that affecting the tourists in selecting Damnoen Saduak Floating Market as their next travel destination.
- 3.To investigate if there are difference in overall of technology friendly in terms of age, gender and level of education.

#### LITERATURE REVIEW

Todays, in managing floating market requires an understanding of the custodial role and the need to attract visitors, as a result of the change in external environments, especially the change of visitor's behavior and their budgeting. Therefore, there is a need for a local people to comprehend a marketing concept which contributes to destination loyalty through visitor's satisfaction.

There are many studies about the destination loyalty and one of the studies from [7] Backman & Crompton, (2009) stated that loyalty means committed behavior that is established by the tendency to take part in a particular leisure facility. The interpersonal tactics on marketing sets client loyalty as a strategic objective assumed that various organizations have come to recognize the monetary significance of a loyal customer database; [8] Vishal Rajan (2015) are cited to emphasize this significance. He also studied on the factors affecting tourist destination loyalty in Munnar, India and reviewed that the at Munnar, among the tourists visiting Eravikulam National Park shows that there exists loyalty among the tourists visiting Munnar and the Perception of tourists, Image of destination, attributes of destination and experience of tourists are factors that influences the satisfaction level of tourists at Munnar and the satisfaction of tourists has a high level of influence on tourists' loyalty towards the destination of Munnar.

When discussing in tourist loyalty, other researchers [9] Chen & Chen (2010) said that, the tourist loyalty is the behavior that will occur in the future after getting to travel and being impressed by showing in the form of a repeat visit moreover encourage more people to come and visit that destination. This is in relation with another research result from [10] Robinson & Etherington (2006), which stated that tourists who are satisfied with the quality of service of any tourist destinations, will be loyal to that tourist destination. From the studied of [11] Lee, Jeon & Kim, (2011), also stated that if tourists are not satisfied with the quality of the tourist attractions, they will be expressed by complaining and will result in not being loyal to that tourist destination any more.

In addition, [12] Sompong Amnuay-ngerntra (2015) said, making the travel experience fun, light, and entertaining is more important for many tourists. Therefore, visitor participation should be encouraged to increase visitor's understanding and experience. In addition, there is a need to develop an interpretative theme, a statement which connects different strands of information, and uses an idea or concept as a way of understanding a place. The interpretative theme will help visitors understand the connected facts of a heritage site. This makes the visit more interesting and more memorable.

The use of a marketing approach by understanding why people visit, the experience can be shaped to better satisfy their needs in a manner that is compatible with the destination loyalty management goal. This is in relation with [13] McKercher and Du Cros (2002), If the experience is not shaped to satisfy the visitors' needs, or if those needs are not known, then the tourists will shape the experience themselves to satisfy their own needs. Similarly, if the asset is positioned vaguely in the marketplace, or if the tourists are unaware of the position strategy used, a greater likelihood exists that the wrong type of tourists will visit. The wrong type of visitors can adversely threaten cultural heritage resources of the host communities. Alternatively, the failure to appreciate the tourism significance of an asset and the accompanying need to transform it for tourism consumption may result in the unappealing presentation of the site, resulting in lower visitation levels, lower satisfaction levels, less repeat visitation, and fewer financial returns.

#### RESEARCH METHODOLOGY

# A. The study site:

The research was conducted to determine the technology factors that affecting tourism destination loyalty in Damnoen Saduak Floating Market, Ratchaburi, Thailand. The research approach used is descriptive to describe the quantitative research method. Moreover, survey method is found to be the most common research tools.





Picture 1: Researcher and team

Picture2: Damnoen Saduak Floating Market

# B. The sampling population of this study:

The population of this study consists of 400 tourists who visited Damnoen Saduak Floating Market, Ratchaburi Province, Thailand. The sample were collected by using [14] Taro Yamane (1973) formula with a 0.05 level of significance. The content validity was obtained by getting three experts in the field of hospitality and tourism to examine each question. The validity of each question in the questionnaire was tested by using Item-Objective Congruency or ICO index.

# C. Research Methodology:

A survey research method was employed to study the technology that affects the tourism destination loyalty in three categories which are product, service and tourist information. An English questionnaire was given to 400 participants, who were travelled in Damnoen Saduak Floating Market during June-December, 2019.

# D. Data Collections:

In terms of data collections, initially, 30 respondents have been used as a pilot study in order to fine an Alpha Coefficient data and the method of how to improve or adjust each question in the questionnaire. The pilot study and questionnaire improvement resulted in the Alpha Coefficient value of 0.717 for the whole questionnaire and 0.832 for the satisfaction questions, later on, the researcher started to collect data from the total of 400 participants. Each respondent has been rechecked if they had completed all questions in the questionnaire to prevent any missing data, and miss interpreting.

# RESEARCH RESULTS AND DISSCUSSION

Table 1:	Characteristics of	Samples Frequency	Percent	N
Gender		Trequency	1010000	400
Female		161	40.25	400
Male		239	59.75	
		239	39.13	400
Age				400
14-23		23	5.75	
24-33		142	35.50	
34-43		102	25.50	
44-53		81	20.25	
54++		52	13.00	
Education				400
Primary So	chool	16	4.00	
High Scho	ol	89	22.25	
Under Gra	duate Degree	102	25.50	
Graduate I	Degree	193	27.25	
Income				400
Below 15,	000 Baht	22	5.50	
15,001 – 2	5,000 Baht	78	19.50	
25,001 – 3	5,000 Baht	88	22.00	
35,001 – 4	5,000 Baht	156	39.00	
45,001 ++	Baht	56	14.00	
Destination	n Preference			400
Culture		38	9.50	
Local Foo	d	71	17.75	

	Frequency	Percent	N
Historical Site	28	7.00	
Natural Beauty	48	12.00	
Floating Market	118	29.50	
Souvenir and crafts	37	9.25	
Low cost of travelling	54	13.50	
Others	6	1.50	
Technology friendly during travel			400
Service Technology	112	28.00	
Transportation Technology	129	32.25	
Tourism information Technology	124	31.00	
Others	25	6.25	

Figure 1: Characteristics of Samples

Table 2. Level of Technologies friendly that affecting the Tourist's Destination Loyalty

Technologies	Means	S.D.	Level
<b>Transportation Technology</b>			
Public transportation	4.36	0.69391	Very Satisfied
Private transportation	4.18	0.74719	Very Satisfied
Boats in Floating Market	4.29	0.68471	Very Satisfied
Services Technology			
Accommodation Service	4.19	0.73317	Very Satisfied
Cash Collections	4.17	0.76889	Very Satisfied
<b>Tourists Information Technology</b>			
Tourists sign	4.11	0.79319	Very Satisfied
Tourist help desks	4.16	0.77129	Very Satisfied
Overall	4.21	0.71871	Very Satisfied

Figure 2: Level of Technologies friendly that affecting the Tourist's Destination Loyalty Copyright © 2020 by the 1st International Conference on Management, Innovation, Economics and Social Sciences.

Table 3. Tourist's preference to revisit Damnoen Saduak Floating Market as their destination loyalty

Damnoen Saduak Floating Market;	Frequency	Percentage
A Travel Destination Loyalty		
To themself		
Yes, will revisit this destination		92.75
Not sure to revisit this destination	371	5.50
Will not revisit this destination	22	1.75
To others	7	
Will recommend to others to visit this		95.5
destination	382	3.25
Not sure to recommend to others to visit this	13	1.25
destination	5	
Will not recommend to others to visit this		
destination		

Figure 3: Tourist's preference to revisit Damnoen Saduak Floating Market as their destination loyalty

The first part of the questionnaire measures characteristics of tourists such as gender, age, education, and the main travelling preference regarding the technology friendly during their travelling in Damnoen Saduak Floating Market. The result from table 1 indicated that the preference of tourists is the special characteristic of the floating market followed by the local food and the culture respectively.

The tables also shown that most of the tourists were male at 59.75 percent and the tourists age is between 24-33 years which was at 35.50 percent which was resulting at the highest level, followed by age between 34-43 at 25.50 percent respectively. Next, is the educational level of tourists was indicated at Graduate level which the highest score was account for 27.25 percent. The average of the income indicated at 35,001 – 45,000 Baht at the highest level of 39 percent accordingly.

The second part of questionnaire measures level of satisfaction by using five Likert scale. Responses rage varies from 1. Very dissatisfied, 2. Dissatisfied, 3. Moderate, 4. Satisfied, 5. Very Satisfied. The last part of the questionnaire gathers the tourist's opinion on their destination loyalty. The validity of each question in the questionnaire was tested by using Item Objective Congruency or IOC index.

The result from table 2 indicated that the technology friendly for public transportation was shown at the very satisfied level. Followed by technology friendly of boats in the floating market which also indicated at the very satisfied level. Moreover, the Service technology on transportation technology and Cash collections technology has shown at the very satisfied level. Furthermore, the tourist's information technology on Tourists sign and Tourist help desks was indicated at the very satisfied level accordingly.

The result from table 3 indicated about the opinion to themselves and to others towards the tourism destination loyalty, the results shown that most of the tourists will revisit Damnoen Saduak Floating Market as their destination loyalty at 92.25 percent. Moreover, they will recommend others to visit Damnoen Saduak Floating Market as the choice of destination at 95.50 percent accordingly.

## RESEARCH SUMMERY AND FUTURE RESEACH RECOMMENDATIONS

As many research and papers has indicated that tourist's satisfaction is generally recognized as the most important factor to increase tourism destination loyalty. The logic goes on, [15] refer to Kozak and Rimmington (2010), said that satisfaction is the most important tool to the tourist destination marketing. High level of tourists' satisfaction links to a high tourists' level of loyalty as the tourists are more likely to revisit the destination.

From this research result, the Damnoen Saduak Floating market has special characteristic unlike other floating market, which offering a unique and infectiously chaotic market with a historical attraction. It opens daily from 08.30am and as there are many fruit sellers paddling their boats along the canals which pass many historical sites over there which means the tourists will get the great picture for their unforgettable memories.

As the tourist demographic segment indicated at the people age between 24-33 who are technology savvy and have the time and money to travel to floating market by using technology as their lead guide for the travelling, therefore, it is very easy for them to come back and revisit the floating market again by using technology for both experiential reason and understand the information in various historical site along the floating market. However, from the result of this research, the researcher found that in terms of tourists' age, gender and educational level did not lead to significance in overall technology friendly and to destination loyalty.

The study of the technology and accessibility to an internet connection of the tourist and destination loyalty will be beneficial step for the future research. Furthermore, the application development and innovation management also could be the next step of the further research in order to develop more tourism destination loyalty. However, keep in mind that there is the truth about the accessibility and the quality of the connection or receptions that effect the cost of investment on tourism management respectively.

The development in information technology aspect in tourism as well as the local people's participation, the jointed information, the application development, the tourist attraction development of various places is necessary and is needed to be operated in a systematic tourist attraction development process.

Further research could be the study on how technology and innovation product or service can encourage the low – carbon tourism to another floating market and to many historical sites. Moreover, environmentally friendly technology that everyone can get involved in an environment conservation which enhancing the uniqueness of each tourist attraction.

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# INFLUENCE OF SPIRITUAL LEADERSHIP AFFECTING JOB SATISFACTION OF THE HIGHEST INCOME BUSINESSES IN THAILAND

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## **ABSTRACT**

This paper is the study of Influence of Spiritual Leadership effecting Job Satisfaction of the Highest Income Businesses in Thailand. By systematic review and applying from mixed research between quantitative and qualitative research methods, data is analyzed and synthesized to find the components and measures business effectiveness of the highest income businesses in Thailand.

The objective of this research reviewed the literature on the Influence of Spiritual Leadership effecting Job Satisfaction of the Highest Income Businesses in Thailand.

This study has founded that the Influence of Spiritual Leadership effecting Job Satisfaction of the Highest Income Businesses in Thailand has 2 components: Spiritual Leadership and Job Satisfaction. The studied manifest variables are shown as:

- 1. Spiritual Leadership has 4 variables: Vision, Hope/ Faith, Altruistic Love, and
- 2. Job Satisfaction has 2 variables: Intrinsic Factors, and Extrinsic Factors.

**Keywords:** Spiritual Leadership, Job Satisfaction

## **INTRODUCTION**

According to the World Economic Forum, Thailand's Global Competitive Index 4.0 ranking improved to 38<sup>th</sup> place (out of 140 countries) in 2018, from the 40<sup>th</sup> place the year before and the World Bank Group's 2020 Ease of Doing Business report the ranking in which Thailand came in the 21<sup>st</sup> out of 190 countries, six places higher than the previous year. Among areas in this report, the greatest improvement was the reduction in the number of steps required and amount of time needed for obtaining construction permits, and the score for ease of shareholder suits that in turn helped to improve the ranking for protecting minority investors.

Year on year, Thailand's rankings have improved in many areas. The trade surplus as a percentage of GDP was ranked 9th globally, and its current account surplus earned a 10th place ranking. Its ranking rose to the 12<sup>th</sup> which is largest for agricultural output, while Thailand's manufacturing output was ranked 18<sup>th</sup> worldwide. It was ranked the world's 19<sup>th</sup> largest importer, and the 24 <sup>th</sup> largest exporter. Industrial output qualified Thailand for a 23<sup>rd</sup> place ranking. The improvement in ranking for earnings from services and income, moved from 27<sup>th</sup> largest to 24 <sup>th</sup>. Overall, Thailand's economy was ranked 26 <sup>th</sup> in size, and 27<sup>th</sup> for services output. Despite world-wide economic headwind, Thailand's economy has continued to move

forward, with applying requests for opening for 2,889 factories creating new employment opportunities for almost 85,000 workers in 2019 according to the Industry Ministry.

Job Satisfaction influences worker and organization productivity (Weiss, 2002; Lund, 2003; Zeinabadi, 2010; Rashid & Rashid, 2011). According to Froeschle and Sinkford (2009), Wong and Heng (2009), Job Satisfaction of employees leads to employee's retention as well as increasing in productivity. Other researches (Mardanov, Heischmidt, & Henson, 2008; DeConinck (2009) findings have indicated that employees who are dissatisfied with their jobs tends to increase in voluntary turnover. Other variable that influence employee Job Satisfaction is the Leadership Style of management members in administrative position and inadequate knowledge of the type of Leadership. The negative effect on job satisfaction leads to job dissatisfaction of employees which results in negative consequences (Zeinabadi, 2010; Austin, 2012; Lawrence & Bell, 2012).

#### **OBJECTIVE**

To study the Influence of Spiritual Leadership effecting Job Satisfaction of the Highest Income Businesses in Thailand.

## **METHODOLOGY**

This research is a documentary research using secondary data from relevant documents and research in the study, analysis, and synthesis of data in order to find out Influence of Spiritual Leadership effecting Job Satisfaction of the Highest Income Businesses in Thailand.

# LITERATURE REVIEW

Spiritual Leadership theory was developed within the intrinsic motivation model (Fry, 2003). Intrinsic motivation refers to an inherent tendency to seek out novelty and challenges, to extend and experience one's capacities and to learn (Ryan and Deci, 2000), which represents the prototypic manifestation of the human tendency toward learning and creativity (Ryan, 1995). Various studies have confirmed that intrinsic motivation is associated with better learning, creativity, and performance. Some studies have shown that individuals who are intrinsically motivated have more interest and confidence than those who are externally controlled, which in turn is manifested as enhanced performance and creativity (Valas and Slovik, 1993; Sheldon et al., 1997). Other studies have demonstrated that intrinsically motivated individuals engage in self-determined behaviors, such as knowledge sharing behaviors and innovative work behaviors (Devloo et al., 2015; Tangaraja et al., 2015). Finally, intrinsically motivated individuals engage in tasks primarily because tasks themselves are satisfying (Yousaf et al., 2015).

# 1. Spiritual Leadership

**Table 1 Composition of Spiritual Leadership** 

Reference (Name of researcher / year)	vision	Hope/ Faith	Altruistic Love	Trust
Fry et al. (2017)	✓	<b>√</b>	<b>√</b>	✓
Udin et al. (2017)	✓	✓	✓	✓
Chegini & Nezhad (2011)	✓		✓	
Chen & Yang (2012)	✓	✓	✓	
Hackett and Wang (2012)	✓	✓	✓	✓
Juhaizi & Tahir (2011)	✓	✓	✓	
Nooralizad & Ghorchian (2011)	✓	<b>√</b>	✓	✓

Spiritual Leadership applying vision, hope or faith, altruistic love and trust primarily generates intrinsic motivation among employees through goal identification and task involvement. This process is compelling due to the approach of the higher-order needs of individuals, for instance, self-efficacy, autonomy feeling, relatedness, and competence (Ryan & Deci, 2000). Throughout the power shared to employees, the effective leaders should not only apply their formal authority to minimize operations costs, but they also need to promote coordination and cooperation within their workforce (Zehnder, Herz, & Bonardi, 2017). Their capacities and talents that were previously shackled to now have the opportunities to show up.

# **Spiritual leadership**

Vision forethoughts Knowledge of the Leader, Wisdom of the Leader, Spiritual purpose, Lightening the way and Achieving Desired goals.

Hope/faith makes belief in Faith in the higher power, Hope, Perseverance, Development of objectives and innovation.

Altruistic love pays Attention to the staff, Humanistic Characteristics of Spiritual Leader and Justice.

Trust means the expression of business executives consistently both words and actions, working with honesty, revealing morality, ethics and build good working relationships.

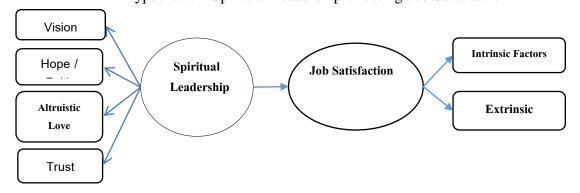
#### 2. Job Satisfaction

**Table 2 Job Satisfaction** 

<b>Intrinsic Factors</b>	Extrinsic Factors	
✓	✓	
✓	<b>✓</b>	
✓	<b>✓</b>	
	<b>✓</b>	
<b>√</b>	✓	
	✓	

Job Satisfaction has been one of the most researched areas in social sciences. Satisfaction of employees is highly desirable for any organization that wants to be competitive in its niche. Many researchers have explained Job Satisfaction in previous researches. Siang (2015) describes Job Satisfaction as the feelings regarding your job and how happy you feel within that job. This can be affected by many factors such as company policies and interpersonal relationships. Holland (2018) explained that Job Satisfaction is dependent on a lot of factors within an individual's control. He stated that satisfaction is known as influence not only employees but also their organizations. Unsatisfied workers are known to have lower productivity, poor performance, more job stress and higher turnover rates. Low Job Satisfaction can also lead to low morale and loyalty to the organization. Job Satisfaction has two components: Intrinsic Factors and Extrinsic Factors (Devloo et al. (2015), Tangaraja et al. (2015), Yousaf et al. (2015) and Neog & Barua (2014)).

Hypothesis: Spiritual Leadership effecting Job Satisfaction



Delfino (2019) cited that the university officers should continually reach out to its employees and communicate clearly about the directions of the university. Furthermore, the fair and just working environment should be strengthened so that it would be felt by all employees. Enough support should be given to all employees based on their needs to increase their productivity. Social activities could help lessening the work-related stress. Spiritual

Leadership should be maximized in the university because it is a potential factor that could create a healthy working environment and increase Job Satisfaction among employees of the university.

# CONCLUSIONS AND DISCUSSION

This research, the Influence of Spiritual Leadership effecting Job Satisfaction of the Highest Income Businesses in Thailand had 2 components: Spiritual Leadership and Job Satisfaction which had 6 variables, and the objective studied the Influence of Spiritual Leadership effecting Job Satisfaction of the Highest Income Businesses in Thailand which correlated with the research by Baykal (2019); Phuong et al. (2018); Wang et al. (2019); Udin et al. (2017); Pandey (2019); Egel & Fry (2015); Delfino (2019); Mahipalan, (2018); Palmiano (2017); Hanaysha (2016); Swe KTH, Lu LH (2019); Butt RS (2018); Sanyal & Hisam (2018); Khan & Mashikhi (2017); Yuen et al (2018).

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# TOURIST ROYALTY TOWARD OTOP INNO-LIFE TOURISM-BASED COMMUNITIES IN SISAKET PROVINCE.

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## **ABSTRACT**

Community tourism is a development of domestic tourism which is very important for economic growth. It is an opportunity to distribute income to rural communities and local employment. Therefore, the government has formulated a tourism strategy for the community, represented by the Ministry of Tourism and Sports supports the local organizations to set policies, goals, plans and activities related to tourism freely. The government will support the knowledge, experiences and budget through the mechanism of state in various formats. Currently, tourism has integrated coordination for developing community-based tourism.

The purpose of this article was to know about OTOP Inno-life Tourism-based Communities. It was focus on two main points were 1) OTOP inno-life tourism-based Communities in Sisaket Province and 2) Tourist royalty toward OTOP inno-life tourism-based communities in Sisaket Province

**Keywords:** OTOP Inno-life Tourism-based Communities, Tourist Royalty

# **INTRODUCTION**

Sisaket Province has been grouped in the lower Northeastern region 2 and there is a target for cultural tourism development, which is to develop tourism quality to meet the standards and sustainability, develop a network of connections in groups and link to the neighbors, create the points of sale or symbols of tourism areas, rank attractions in accordance with the distance, create tourism routes that link to 4 cultural tribes of Sisaket, tourism schedule management, creating the value of cost and focus on transportation readiness, including the procedure, market and public relations. In addition, the development of cultural tourism in Sisaket province found that all parties are increasingly seeing the importance of tourism business, as tourism helps to create jobs, create careers and income, such as communities, so it should encourage various agencies such as The Sub-district Administration Organization has prepared a tourism development plan in the area to create tourism activities. In addition, the development of cultural tourism in Sisaket province found that all parties are more aware of the importance of tourism business as tourism help making income for people. So, it is encouraged the agencies such as the Sub-district Administration Organization create a tourism development plan in the area to create tourism activities. Therefore, the cultural tourism potential development should have a framework or direction for development in line with the goal of development, by determining procedures with the relevant sectors, as well as in the direction of ASEAN tourism development in the part of the third pillar is the social and cultural connection in which the characteristics of ASEAN social and cultural relations are closely linked with beliefs, religious traditions. Creating a sense of unity by learning about life and history as well as each other's landmarks will help make social and cultural connections more materialistic (Phibulsongkram, P., 2014, p.51). When we moved to an ASEAN Community in 2015 and opened the borders among 10 countries, it will bring about to the traveling and tourism which will contribute Sisaket Province is to be a tourist destination in the Southeastern civilization. The tourism business and the Sisaket Chamber of Commerce, which is part of impulsion for innovative community tourism in any areas, found that tourist destinations are not as good as other provinces in Thailand and the OTOP promotion in each area has the capability of selling community products that was produce in local. Linking the network with public relations for tourists is the local economy to generate income for the community, which will enhance the quality of life thoroughly and stimulating the economy and society in the country to be strong and relate to the development plan. This is for planning to create the strategies of the cultural tourism potential development of Sisaket Province and integration of cooperation from all sections. Moreover, it must be created value and value added for cultural tourism as well as being a part in promoting and preserving the cultural heritage of Sisaket province and also creating a new alternative of cultural tourism in the South Isan region, and to develop the local economy to make income for the community by improving the quality of life of people thoroughly, stimulate economic and social strength to connect tourism routes (main stream, emerging cities, communities) to be outstanding, ready on the identity of the OTOP innovative life tourism-based communities for sustainable communities.

# **Objective**

- 1. Study the OTOP inno-life tourism-based Communities in Sisaket Province
- 2. Study the tourist royalty toward OTOP inno-life tourism-based communities in Sisaket Province

# **OTOP** innovative life tourism-based Community

Innovative life means the tourism that focuses on promoting local knowledge, not delivering the distinctive products of the community to outside as before, but inviting people outside to learn lifestyle, culture, food and destinations of communities. The concept of "OTOP Innovative life" is a change from producing products for sell outside to be changing lifestyles into products and services, which are explosive developments from the inside, encourage local people to develop their own communities to be stronger, draw traditional community identities that emphasize simplicity and have continued for generations to create a charm and impression for tourists with the products from the wisdom of the people in the community. The linking of tourism routes in the community is attractive and worth for tourists to visit and pay for all community activities which will be distributed to people in the community. It will make people be happy and strengthen within community and develop local economy truly. The purpose of the local development is to 1) develop the local economy for generating income for the communities in order to upgrade the quality of life of people thoroughly, stimulate the domestic economy and society to be stronger 2) develop quality and raise the standard of OTOP products of adapting for development group (group D) to get ready to sell products and make more income 3) link the tourism routes (main cities, emerging cities, communities) to be outstanding and get ready on the identity of OTOP innolife tourism-based communities 4) create and develop personnel, entrepreneurs and related people in the communities to have more an creative thinking and to further their communities management appropriately. The goals are 1) People get the career development, make more

income and strengthen the local economy with connecting OTOP inno-life tourism-based communities to tourism routes of main cities, emerging cities and tourist attractions of 3,273 villages 2) Developing the quality and raising the standard of 64,570 OTOP products of adapting for development group (group D) 3) Building 3,273 markets where draw tourists with the OTOP inno-life tourism-based communities, which lead to more income distribution.

# The important of tourism-based community

The tourism industry is considered a tourism business that generates income to entrepreneur and distributes to local which is tourist destination, therefore the local government organizations (Sub-district Administrative Organization, Municipality and Provincial Administrative Organization) and related government agencies and the government should set the policy and plan of tourism development and promotion by increasing the number of both Thai and foreign tourists in order to raise the tourism income, increase the local economy in general, and affect to the overall of country's economy because tourism income will be distributed to the communities who are own local attractions, for example; tourists visit the community and eat or buy some souvenirs. Money from tourists will pass from the store owner to farmers who produce food and fruit or weaver in the communities. Therefore, managing local tourism absolutely is a duty of all to work together for drawing more tourists visit throughout the year and forever which is the sustainable tourism management. The role of community organizations or communities toward the development and promotion of sustainable tourism must work together with multilateralism by sharing ideas and brainstorming the study of tourist attractions and tourism activities, including the strength, weaknesses, opportunities and problems as well. After that, joining to create the plan and solve problems, promote and publicize tourism, making the action plans: specific plan, urgent plan and middle-term plan, joining hand to complete the task as planned, including investing in tourism that have been approved by the community and evaluating together the procedure to meet the goals or resolutions and develop for the better quality.

Tourism-based community has expanded rapidly and is expected to be a potential tourism because it is a participatory tourism for the community, supports the conservation of natural resources and environment, and creates income for community economy in local including it is a niche market as well.

## **OTOP Inno-life Tourism-based Communities in Sisaket Province**

OTOP Inno-life Tourism-based Communities in Sisaket means tourism is a form of tourism that uses tourism as a tool of the role of communities, lifestyle, culture, wisdom and natural conservation as well as exchange of new experiences. "OTOP Inno-life Tourism-based Communities" is a new strategy to secure the local economy, reduces social inequality, create a strong and sustainable community by bringing innovation to integrate into lifestyle. The production of local products or OTOP products under the concept of Happiness Orientation, together with the integration of community tourism into the community as a setting in order to jointly create a tourism community at the village level or the "Small Point" with identity and enhance the products by mix innovation and lifestyle of the community at least 1 village per 10 products, which will make the community earn and can truly be self-reliant. OTOP Inno-life Tourism-based Communities in Sisaket creates and develops personnel, entrepreneurs and people involved the tourism communities to have the creative capability and then expand to be outstanding, ready on the community's identity for sustainability. The population of Sisaket Province is divided into 4 groups, namely Laos, Suay, Ye and Khmer.

Star from Ban Yang Chum Noi Village, Village Moo 1, Yang Chum Noi Subdistrict, Yang Chum Noi District, Sisaket Province, tourists have visited the sea of organic spring onion (Big red onion garden) and the villagers earn the income from cultivating spring onion, which lasts approximately 45-60 days. Each family will grow 3-5 Rai with an average income 100,000 Baht per Rai. It can be sold 12 Baht per kilogram (The competitor is red onion from Indonesia). In addition, there are products from red onion, which are red onion curry puff and red onion tea (using organic red onion growing in pot). The manufacturer has been trained at Sisaket Rajabhat University, Young Smart Farmer of Ban Lathai, Moo 1, Lathai Sub-district, Kanthararom District, Sisaket Province. Lathai villagers have descended from Ubonratchathani Province, which have inherited their tradition from generation to generation with their own tradition that indicate the distinctive Laos ethnicity, such as Lao dress, Lao traditional cuisine, their own dialect, the obviously traditional game is the Thai rocket festival that is extremely organized every years, ancient beautiful carving rocket which have only Lathai Village, Lathai Village lifestyle, Laos culture, OTOP Inno-life, and the Big Buddha at Wat Pho Sri Lathai. Moreover, there are also homestays for groups 50 people or more including activities as drum dance, Laos traditional dance, paying respect to the Big Buddha at Wat Pho Sri Lathai and traditional dinner.

Ban Nong Ngu Luam Nuea, Moo. 2, Nong Ngu Luam Sub-district, Benjalak District, Sisaket Province where is a famous of sufficiency agriculture such as a harvest, pounding rice at Lao Thong Farm which is an organic rice berry plantation and are transformed to be Lamduan cookie, and making tea from dragon fruit peel, including the homestay. This village provides the traditional welcome ceremony (Bai Sri Su Kwan) and warm hospitality with cooking award-wining local dishes such as la-waek-ka-poo (local curry with crab), chicken spicy soup, and also offering food to monks in the early morning.

Nonsawarng Villege, Phromsawat Sub-district, Phayu District, Sisaket Province have arranged the activities such as visiting bamboo bridge, fish hunting, lifestyle of Lao ethnic group, growing mulberry, feeding silkworms, complex silk weaving, silk reeling, tie dye and visiting ancient market. After doing rice farms, the local residents spend a free time to grow mulberry, feeding silkworms and sell products as well. Textile dyes use natural colors such as yellow from jackfruit and red from lac. Sisaket has many interesting tourist attractions that tourists should visit, including tourism resources and tourism activities that owned by the communities. Considering the local tourism resources, it can be divided into 7 categories, which are 1) Natural resources that are beautiful, distinctive and unique as forest, mountain, waterfall, cave, sea 2) Archaeological / Historical / Beautiful religious sites 3) Folk Museum 4) Folk religious ceremony or local customs of the year (12 months) 5) Local wisdom, local lifestyle and main occupation of the communities 6) Farms, agricultural gardens and animal farms 7) Talented villagers working in the tourism business like tour buses, tour boats, restaurant and tour services (local guides or keynote speakers) etc.

# Tourist Royalty toward OTOP Inno-life Tourism-based Communities in Sisaket Province

Algesheimer, Rene, Dholakia, Uptal, Herrmann & Andreas (2005) pointing out that the revisits of consumer behavior theory, a commitment of repurchasing or regular buy the favor of products and services in long term, calls loyalty (Oliver, 1997). Honest customers are therefore a valuable asset as they will come back to use services and word-of-mouth to friends and family, it will save cost of finding new customers. Eugenio-Martin and Avila-Foueat (2005) found that the revisits caused by the tourists are happy and enjoying their visits and willing to return in the future and introducing their friends or acquaintances to visit well or other factors. It is in line with the research of Weaver and Lawton (2002, p.3) pointing out

that the revisits indicated that the satisfaction of tourists' previous travel experience and the loyalty toward tourist attractions can be divided into 4 categories: Latent, High, Low and Spurious. However, as each tourist perceives that the travel experience is enjoyable and the intention to come back repeatedly, there are factors that influence the revisits.

The concept of Kotler (2000, p.123) pointed out that the satisfaction of tourism, tourism resources, quality of services, facilities and tourists' security leaded to the tourists' intention toward revisits. Zeithaml and Bitner (2003, p.164) used as a criteria for behavioral intention of revisits. Both scholars studied the consequences of consumer satisfaction after purchasing, it was found that it is important of the behavioral intentions, which are both negative and positive. The positive behavioral intention consists of telling good things about the organization or service source, advise others to use the services, be willing to buy more products or services, come back to use the service and be willing to pay more for additional services. Negative behavioral intentions are the result of low level of satisfaction and service quality, which causes negative behavior for sharing products and services with others, decreasing service use or switching to other, including the complaints to external organizations as well (Drucker, 1980). Moreover, it is in line with Schiffman, Kanuk & Leslie (2000) revealing that loyalty is not natural, but it is the perception of the needs and services of customers by heart. As of the customers' satisfaction and consistent brand loyalty or repurchasing of the original brand can be observed from the repurchasing in the long-term. Meyer - Waarden, L., Benavent, C. and Castéran, H. (2013) has applied the managing and empirical theory to improve loyalty efficacy. It is found that the perception of benefit and loyalty varies according to the purchasing direction.

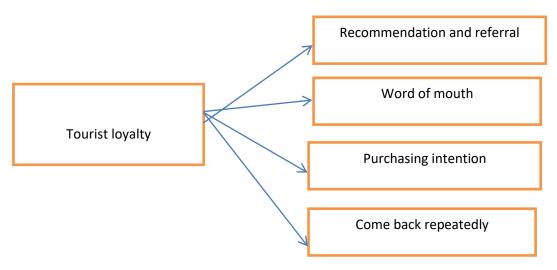


Figure 1: Tourist Royalty toward OTOP Inno-life Tourism-based Communities in Sisaket Province

## **CONCLUSION**

The loyalty and intention of revisits consisted of behaviors that tourists had a strong intention of revisits in the future, word of mouth of good things about tourism, recommend to friends or acquaintances and be willing to pay extra for the facilities. Tourist Royalty toward OTOP Inno-life Tourism-based Communities in Sisaket Province was shown in Figure 1.

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# THE RELATIONSHIP BETWEEN SERVICE QUALITY AND CUSTOMER LOYALTY ON BEAUTY SALONS IN BANGKOK

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#### **ABSTRACT**

This research aimed to study a relationship between service quality-related factors and customer loyalty-related factors on the beauty salon business in Bangkok. This research was based on the literature review of secondary data. The data sources included related documents, textbooks, and previous research. The research framework for the study of a relationship between the variables was developed based on this literature review.

The research findings showed that the service quality-related factors included: 1) tangibility; 2) reliability; 3) responsiveness; 4) Assurance; and 5) empathy. These factors had a relationship with the customer loyalty-related factors including: 1) repeat purchase; 2) word of mouth; 3) purchase intention; and 4) price tolerance.

**Keywords:** Service quality, Loyalty, Beauty Salon Business

#### INTRODUCTION

At present, the trend on health and beauty care is in the interest of a number of people. Such trend tends to grow continuously as it is quite easy for people to step in to the health and beauty care business (Kasikorn Research Center, 2018). With this reason, the health and beauty care business has gained an increasing popularity. Health and beauty is closely related and cannot be separated from each other. This time is the age in which the beauty industry can be accessed by people of all ages, and beauty can be regarded as the fifth necessary factor for people's daily life. Therefore, there are a number of beauty salons and beauty products have been introduced in the marketplace to respond to the needs of consumers, and the more number of the beauty salons, the higher the competition between them (https://marketeeronline.com, 2018).

The overall growth rate of the beauty salon market is very high and tends to increase annually. The beauty salons which provide complete beauty care services for skin, hair, nails, and eyebrows are likely to enjoy higher growth than those offering only skin care service because people have higher purchasing power and technology is more advanced. The opportunity for the business expansion has been increasing continuously. More importantly, beauty is a factor that is regarded as important for both males and females who want to look good and be accepted from others. These all factors together lead to intense competition among the beauty salons.

At present, competitions among this business in terms of wining customers seem to continuously increase. Therefore, in order to survive and be able to compete with the

competitors, each beauty salon needs to adjust its services and focuses on using the quality of its services as an important tool in encouraging consumers to use the services (108 Franchise Center, 2016).

From the above-mentioned trend, it can be seen that there is high competition in the business salon business because more and more new entrepreneurs are stepping into this business. Moreover, such high competition is also a result of the establishment of a number of new hospital branches. These hospitals usually use new modern medical equipment in the treatment. Each hospital needs to find strategies and innovations as well as communication channels to gain access to consumers so that it can update these consumers with new information of its service immediately as well as develop a clear image of its organization and products in the minds of its target consumers. Therefore, the beauty salons should develop their sustainable competitive advantage by finding factors that can lead to customer loyalty. Based on the concept of Oliver (1999), customer loyalty on a product or service refers to customers' stable commitment with a certain product that leads them to perform repeat purchases or support certain products/services or it can also refer to consistent customer satisfaction that is likely to occur in the future. Customer loyalty is a form of an achievement assessment on marketing performance. Oliver's (1999: 34-39) concept of customer loyalty states that customer loyalty on a product is a customers' stable commitment with a particular product and their repeat purchase or consistent support of satisfied service in the future. For the loyal customers, even though they see other products or are lured by other marketing strategies, they will not change their mind to purchase those products. Therefore, we can say that customer loyalty is an important factor for business operation because once the consumers rely and have confidence on a certain product/service, it is easy for a business to sell such product/service as well as clearly differentiate it from other products. Customer loyalty also leads to word-of-mouth and repeat purchase or readiness to purchase the product on a continuous basis. Therefore, customer loyalty is an achievement assessment on marketing performance as well as a significant factor for survival of the business.

Upon realizing the above-mentioned reasons, the researchers were aware of the significance of customer loyalty and interested to conduct a study on the relationship between service quality-related factors and customer loyalty on the business salon business in Bangkok.

# **Research Objective**

To examine the relationship between service quality-related factors and customer loyalty on the business salon business in Bangkok.

## RESEARCH METHODOLOGY

This research was based on a literature review. The data were gained from secondary data sources including documents and academic works such as textbooks, and related research publishing in the country and abroad. The review of literature provided a body of knowledge on the relationship between service quality-related factors and customer loyalty on the beauty salon business in Bangkok.

# **Research Findings**

The review of literature led to a development of the research framework consisting of components and indicators for assessing the service quality and customer loyalty as shown in Figure 1.

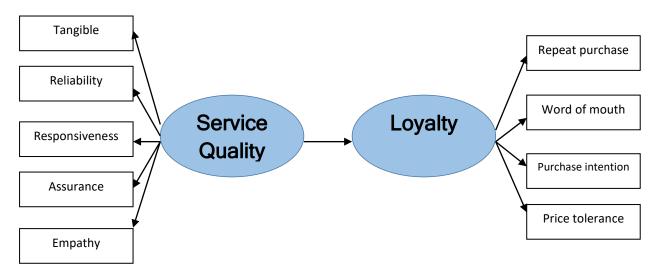


Figure 1 The relationship between the service quality-related factors and customer loyalty-related factors

# **Source: The researchers**

Figure 1 displays the relationship between the service quality-related factors and the customer loyalty-related factors. The service quality-related factors to be studied included: 1) tangibility; 2) reliability; 3) responsiveness; 4) Assurance; and 5) empathy. As for the customer loyalty-related factors, the components that were determined to be the indicators included: 1) repeat purchase; 2) word of mouth; 3) purchase intention; and 4) price tolerance.

Main Construct	Sub-construct or measurement indicators	No. of questions	References of questionnaire
Service Quality (SQ)	Tangibles	5	Parasuraman, Zeithaml & Berry (1988).
	Reliability	5	
	Responsiveness	5	
	Assurance	5	
	Empathy	5	
Loyalty (LO)	Repeat purchase	5	Oliver (1999).
	Word of mouth	5	
	Purchase intention	5	
	Price tolerance	5	

**Table 1.** Structure of No. of Questions

#### LITERATURE REVIEW

The review of literature indicates that there are many factors affecting customer loyalty, but this study focused on the 2 main factors which are the service quality and customer loyalty.

# **Service Quality**

Service quality is perception of customers or experiences that customers gain as a result of a comparison between their needs or expectations and the actual services that they have received from service providers (Parasuraman, Zeithaml and Berry, 1985). Perceived value of service arise when customers are aware that they have gained higher utilities from the service than the amount of money paid and time spent on that service (Zeithaml, 1988). This notion is consistent to the service quality concept of Aaker (2004), Groonroos (1990), and Zeithaml and Bitner (2003) which similarly state that business operation occurs between service providers and service receivers, and service quality is a general ability of the service provider in communicating or delivering service to the service receivers or customers based on the customers' level of expectation. Such customer expectations can be classified into different levels based on customers' needs and can be measured only after they have purchased or received the service. The levels of customers' expectation for the service can be divided into two levels which are: 1) a level of desired service referring to when customers are aware of the extend of a level of their desires for a certain service; and 2) a level of adequate service referring to when customers use their own consideration on a level of their desire for a certain service by considering that that service should feature at least some predetermined attributes and there should be a zone of tolerance or an acceptable gap between a level of desired service and a level of adequate service. Regarding this, Schmenner (1995) states that service quality arises from customers' perception on actual service and their expectation of that service. If the actual service has lower quality than the customers' expectation, they will have negative image on that service or perceive that the service has inadequate quality. On the contrary, if the customers perceive that the actual service has higher quality that what they expected, they will have positive image on the service or view that the service has high quality.

Parasuraman, Zeithaml & Berry (1988) developed 10 factors that can be used by customers in determining the service quality. These are 1) reliability; 2) responsiveness; 3) competence; 4) accessibility; 5) courtesy; 6) communication; 7) credibility; 8) security; 9) customer understanding; and 10) tangibility of service. Later, Parasuraman and Zeithaml&Berry (1990) built on these factors and develop a tool for assessing service quality called "SERVQUA". This tool is a result of a merging of some original factors from 10 factors to be 5 factors (Lovelock, 1996; Zeithaml et al., 1990; Penchansky and Thomas, 1981). These 5 factors are as follows:

- 1. Intangibility refers to physical attributes that are visible such as beauty, convenience, and modernity of beauty salons.
- 2. Reliability refers to an ability of service providers in making service receivers to trust or believe that their service is correct and of quality.
- 3. Responsiveness refers to willingness to provide assistance to customers with immediate action or when being requested by customers.
- 4. Assurance refers to a situation when service providers have knowledge, ability, and ethics to provide service and can lead customers to be confident that the service they have received meets with standards.
  - 5. Empathy refers to care and understanding of individual service receiver' needs.

In summary, SERVQUAL consists of five components or factors determining service quality including: (1) intangibility; (2) reliability; (3) responsiveness; (4) assurance; and (5) empathy (Parasuraman, Zeithaml & Berry, 1988), and service quality refers to a gap between what customers expected and their perception on the actual received service (Woodside et al., 1989).

# Loyalty

Loyalty refers to customers' favorite behavior that lead them not to change their mind to use service of other service providers even though they are encouraged by marketing factors (Caruana, 2002). Customer loyalty is customers' positive feeling on products, services, brands and/or the overall organization. It also refers to customer satisfaction after using the product/service which leads the customers to continuously repeat their purchase until they feel that they have commitment with that specific brand. Loyal customers may also lead the customers to produce word of mouth and encourage other people to accept the quality of that brand. However, customers' purchases which occur at different times may arise from different reasons. Therefore, we still cannot conclude that customers' purchasing behaviors fundamentally arise from their loyalty (Fornell et al., 1996).

In measuring the customer loyalty, marketers introduced a concept and a means for this by dividing it into 3 main dimensions which are behavioral measurement, attitudinal measurement, and mixed measurement. For the behavioral measurement which is the clearest way to see, customer loyalty is measured from customers' repeat purchase on a regular basis. However, as mentioned earlier that customers' repeat purchase may occur from various reasons, apart from their loyalty on that particular product. For example, tourists may stay at our hotel frequently even though they are not impressed with the hotel. Their decision may come from the fact that our hotel is the only one hotel located in the city center. Therefore, if there is a new hotel opening nearby, these tourists are likely to book that hotel instead. The attitudinal measurement involves the measurement of customers' emotion or feeling in order to check whether they have emotional attachment on a particular brand or feel that they are part of the brand or not. Although, it may be difficult to measure customers' emotion or feeling, we can still observe this thing from some certain customer behavior such as their recommendations on the product/service to people whom they are close to, their complementation on the product/service, or their defense of the product/service when other people complained it. As for the mix measurement, this means combines the concept of the first two means together. For example, it involves the measurement of the possibility that the customers may change their mind to purchase other brands, or the measurement of frequency and quantity of each purchase etc. The literature review also reveals that the most three popular questions used by marketers to measure the level of customer loyalty are: 1) do you tend to purchase this product/service again in the future; 2) will you recommend this product/service to people who are closed to you in the future; and 3) overall, to what extend are you satisfied with our product/service? etc.

The main components of customer loyalty include: (1) repeat purchase; 2) word of mouth; 3) purchase intention; and 4) price tolerance. These components are consistent with the argument of (Oliver, 1999) which states that customer loyalty on products/services are customers' stable commitment with repeat purchase or their continuous support on the products or services that they are satisfied in the future. Therefore, customer loyalty is a form of achievement assessment on marketing performance, and it can also serve as an important factor that leads to the survival of the business. This argument is consistent with findings of many research (Charles Makanyeza, Lovemore Chikazhe, 2017; Subrahmanyam Annamdevula, Raja Shekhar Bellamkonda, 2016; Karin Boonlertvanich, 2019; Hung-Che

Wu, 2017; Ernest Emeka Izogo, Ike-Elechi Ogba 2015) which reveal that service quality positively affects customer loyalty. The review of literature can conclude that loyalty is a customer's expression to repeat a purchase or continuously support a particular product/service offered by an organization. It also involves customer satisfaction on a particular product/service which is gained through customer experience (Bourdeau, 2005). Moreover, it is also customers' continuous attachment with an organization which is the owner of a particular product/service (Skogland & Siguaw, 2004). Customer loyalty plays an important role in increasing the market share for the organizations because existing loyal customers tend to produce good word of mouth about the product/service of the organizations. Such action can establish trust and acceptance among new customers who have never used the product/service before (Aaker, 1991). Customer loyalty also lead the organizations to be strong in the marketplace which in turn help in increasing marketing value for the brand, and enhancing competitive advantage for the organizations (Bloenmer, Ruyter & Peeters, 1998; Caruana, 2002) because existing loyal customers always support the product/service and recommend them to other people, leading to growth of sales and profits as well as expansion in market share. Therefore, it can be concluded that customer loyalty is a significant factor for the business growth and efficiency in the operation of the organizations.

Customer loyalty can be directly measured from customers' repeat purchase. The customers' repeat purchase can be divided into two dimensions which are: 1) reflective loyalty which is a result of customers' brand commitment or their positive attitude towards the brand; and 2) inertia which is the repeat purchase of a similar brand as a result of customers having no actual motivations on purchasing that brand such as having no other choices of products or purchasing because of being attracted by discount. Kim et al. (2008) points out that inertia can also occur as a result of brand familiarity or spurious behavior. Consumers may acquire such spurious behavior from their previous purchases of a product that occur without brand commitment. This form of repeat purchase is different from the purchase that occurs from actual loyalty, and such difference are a result of five factors including: 1) brand credibility; 2) affective brand conviction; 3) cognitive brand conviction; 4) attitude strength; and brand commitment.

Assessment of customer loyalty can be classified into 4 levels which are: 1) true loyalty referring to customers' highly positive attitude or feeling towards a certain brand which results in a high level of continuous repeat purchase; 2) latent loyalty referring to customers' highly positive attitude or feeling towards a certain brand which results in a low level of continuous repeat purchase or infrequent repeat purchase, but production of word of mouth on this certain brand; 3) spurious loyalty referring to customers' negative attitude or feeling towards a certain brand which results in a high level of continuous repeat purchase which occurs as a result of being influenced by other persons such as family members or people close to the customers; and 4) no loyalty referring to customers' negative attitude or feeling towards a certain brand which results in a low level of continuous repeat purchase or no purchase (Fornell et al., 1996; Dick and Basu, 1994). However, Gamble Stone and Woodcock (1989) divide loyal customer into two types which are: 1) emotional loyalty; and 2) rational loyalty.

# The Relationship between Service Quality and Customer Loyalty

Service quality is a factor that affects customer loyalty. It also affects the operation of organizations either positively or negatively. Therefore, service quality of any aspects that are under the responsibility of the organizations can influence the perception of customers on product, services and brands offered by those organizations.

Previous studies on the relationship between service quality and customer loyalty such as the study on customer service quality and customer loyalty on the brands of cosmetic products from the perspective of women in the working ages reveals that service quality influences customer loyalty and reflects value of the service as well as customers' previous use of the brands (Thakar, Hetal; Patel, Vipul, 2016). Moreover, the research of Alhedhaif, Sheroog; Lele, Upendra; Kaifi, Belal (2016) found that service quality had a positive effect on customer loyalty and customers' purchasing decision-making process. This finding is consistent with the study of Panteleimon Bakirtzogloua, Spyridoula vryonib and panagiotis ioannoua (2018) which reports that service quality has a direct influence on customer satisfaction which arises from customers' perception that the actual received service are higher than what they expected before. The finding of the study of Samuel Famiyeh, Disraeli Asante-Darko, Amoako Kwarteng (2018) also reports similarly that service quality has a direct influence on customer satisfaction which in turn had a positive relationship with customer loyalty. In this finding, customer loyalty refers to willingness of a service user to support a certain service provider and his preference and likeliness to choose service offered by this service provider rather than others as well as his expressed favorite behaviors on this service that will not be changed. Another similar finding belongs to the study of Yong Lin, Jing Luo, Shuqin Cai, Shihua Ma, Ke Rong (2016) which states that customers' trust on service quality, their perceived value and their perceived value of money all contribute to customer satisfaction, and customers' trust and customer satisfaction are the factors that increase customer loyalty.

# **CONCLUSION AND FUTURE WORK**

The literature review conducted by the researchers lead to a determination of a hypothesis that service quality-related factors have a direct positive influence on customer loyalty. Specifically, this means that if the quality of received service is higher than what the customers expected, the customers are likely to be satisfied and willing to support that service. They also tend to choose the service offered by that particular service provider as their first choice and will not change their mind to use service provided by other service providers. Services that the beauty salons provide for their customers should impress customers. Once the customers are satisfied with the services, a good relation between customers and beauty salons is developed and that relationship in turn stimulates the customers to do repeat purchases on a continuous basis. Customer loyalty also enables a development of a long-term relationship with customers.

Therefore, customer loyalty can be regarded as a form of achievement assessment on marketing performance, and an important factor enables the organizations to survive. Customer loyalty is also significant in terms of its role in increasing sales, enabling the business to enjoy long-term growth, and earning profits from the ability to retain existing customer base as well as acquire new customer base which serve as important foundations for creating sustainable competitive advantage. Thus, a study on the assessment of customer loyalty is beneficial for entrepreneurs and can be applied in the development of marketing strategies that can help the organizations in developing products/services that meet with needs of their target customers.

# **Suggestion**

Future research should focus on the study of other variables or factors that may have an effect on customer loyalty such as reliability, value perception and attitudes toward price because different point of view on this issue can be beneficial for the publics.

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# FACTORS AFFECTING THE LOYALTY OF TOURISTS USING THEME PARK SERVICES IN BANGKOK

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#### **ABSTRACT**

A theme park industry will be very sustainable success from impression of tourist who is service user, confidence in the quality of service according to the tourist requirement, one of success of theme park is due to the satisfaction of tourists who have played the rides and funny activities. In each theme park has various rides that suitable with the ageing tourist and tourist can choose to play as their need; moreover, the activities in theme park can create an impression for tourists who can tell other to acknowledge about good quality of life of human in addition to eating well, relax in the attraction area where is the one of crating the happiness for all people. Theme park industry has arisen in order to provide service to tourists of all genders, age and nationality by bringing the funny and exciting activities, rides and water park for attraction to respond the requirement of tourists the most, one thing is characteristic of each ride to serve which can create the satisfaction for tourists and when tourist visits theme park one thing that they consider before making a trip is the park's location, and surrounding full of conveniences. If the theme park has a pleasant atmosphere both inside and outside, clean and beautiful causing the tourists happier and repeat to service in the next time

This statement wrote for the reader knowing the factor affecting the loyalty of tourists using theme park in Bangkok and to concern two important issues as 1). Theme park factors consist quality of service, price, promotion, rides and activity, identity of rides and location 2). Loyalty of tourist using theme park service in Bangkok consist word of mouth, repeat, good image, confidence and trust

**Key word:** Theme park factor, loyalty of tourist

## INTRODUCTION

To have quality of life for every person included well-eating, relax in the attraction place which is one part of creating happiness for everyone who need theme park where is the one choice cause to change of life from monotonous to routine work. Theme park industry has established to serve all tourists such as the exciting activities and ride both inside and outside somewhere has the water park to serve their need as much as possible. The most tourists tend to find holiday and free time in taking their family members to travel in various attraction locations cause the tourism industry having to develop the service potential to serve tourist both of Thais and foreigner. Attraction place where can be visited by whole family which have many types as desired including zoo, department store, natural attraction place and theme park particularly. Where has now various patterns in addition water park, inside theme park in department store or outside theme park where has the rides for tourists enjoy and fun and where has the size of service for choosing which theme park can be served to

meet the tourist's need cause tourists coming back to use the service repeatedly and telling other people to get the same good experience like myself

Tourist decides to visit that theme park, one motivation is to characteristic of each ride to serve that can create the satisfaction for tourists and visiting theme park one thing that tourists consider before decision to travel is the theme park location both of inside and outside or in department store where serve facilities surrounding conveniently. If theme park has the pleasant atmosphere both inside and outside, clean, and beautiful cause the tourist happier. Quality and satisfaction are important ideas for business owner particular service marketing to create the competitive advantage, customer's perception in quality of service and experience impacting the satisfaction of theme park of tourism industry positive affecting the customer satisfaction with quality of service and image of theme park

# **Objectives**

- 1. To study theme park factor are quality of service, price, promotion, rides, activity, ride identity and theme park location in Bangkok
- 2. To study the loyalty of tourist are word of mouth, repeat, good image, confidence and trust

#### **METHODOLOGY**

Literature review focus on business Theme park in Thailand and Loyalty of tourism. Theme park

Theme park consists quality of service, price, promotion, ride and activity, identity of rides and locations.

Quality of service means the helping potential, suggestion, providing service to customers in all dimension till the customer satisfaction. If it is the service in theme park, it is the suggestion, assistance and providing service to tourist who visited theme park included the welcome, parking service, buying the ticket, rides and activities information and the map in theme park, serving the umbrella, wheel chair to children, ageing people and inability. Serving the ride for convenience, clean, safety, food service and drinking, toilet, rest place and other service that tourist need since entry till exist this are the creating the impression for tourists and trust in the service provided cause repeatedly visiting and word of mouth other person. Junhui Wang at al. (2019) found that quality of service of tourism, theme park and hotel can create the sustainability for business from brand perception and experience from service cause the customer and tourist's satisfaction. Yu Niu Hyejin at al. (2019) found that providing tourist service in timely as requirement is the quality of service cause creating the customer and tourist satisfaction; however, tourism activities and playing rides are the one attraction tourist who is interested in quality of service so the positive experience of tourist is important both of price and facilities which are tourists need to encourage the good attitude for tourist. Tourism attraction and service is unique which is important for successful of theme park and it has creative idea

Tourist service in timely as the requirement is the quality of service which create the customer and tourist's satisfaction. Tourism activities and playing rides are the one of tourist attraction who is interested in the quality of service and positive experience of tourist is important both of price and facilities conveniently which tourist need to enhance good attitude of tourist. Tourism attraction and service are unique which is important for success of theme park which is the creative idea as Yu Niu Hyejin at al. (2019)

Price means the value of product and service that is the money. Price depends on the demand and supply in the part of price for visiting in theme park is the expense of service both of entrance and playing rides in theme park

Promotion is one method of sell promotion causing to purchase product or service more. From quick to purchase decision of customer by promotion and still make the customer loyalty to product, brand and creating the competitive competency effectively

Playing rides and activities are important for tourist expectation to visit theme park where has various playing rides such as thrilling rides and create excitement can make the tourist enjoy and happy in part of activity in theme park has many interesting such as cartoon character parade in theme park and other activities creating impression for tourists including loyalty to theme park also WeiWei RuoxiQi LuZhang (2019) found that the service of virtual reality (VR) technology progression impact tourism the most. Virtual Reality (VR) technology encourage the experience and behavior of tourist visiting theme park included playing ride, experience the roller coaster has positive impact from overall experience of visitor and quality of service both of playing rides and activities

Identity of playing ride is the unique that player is enjoy, impressed and feel different from other playing rides. Tourist is impressed an identity of playing rides and will be back to play in the next time and telling to other people about the experience such as Ferris wheel, Roller coaster, Carousel, seesaw, bumper car and hunted house which had been opened only 4 years during year 1976 – 1979 then had been closed by operation problem after that Bangkok had the second theme park area where was Magic Land (Dannaramit) and the third place was the Suan Siam where is the water park has the largest artificial sea in the world at that time. It has the giant 7 story slider which is highlight that everyone visiting, there is to support for the field trip group and scout camp included the seminar and meeting (https://www.bltbangkok.com)

Location is the area for running business which is convenience for customer to travel located in community and good environment, clean, safety and suitable with doing activities in the part of theme park location is also located in beautiful area, parking easily, the exhibition area is spacious and proportionately appropriate, shady, having a comfortable resting area, food service point, comfortable bathroom, the area of the playing ride is spacious and suitable. The location of theme park can create the tourist's impression and cause the tourist repeatedly in the next time. For theme park in Bangkok has been operated in 1976. It is the first place under name Happy Land located at Bangkapi District. Currently, they are established various location in Bangkok included indoor theme park in department store and water park, there are variety pattern of theme park as the next work of world class and newly opened to respond the tourist's requirement in Bangkok and surrounding Bangkok included the foreign tourist in addition theme park organizes for specific target group as well for example children's theme park where create career in children's imagination that can touch with simulation career and create the inspiration for the real life or some area is both theme park and learning and searching place increasing the intellectual experience. Theme park starts development to create value more than to be theme park only that the competition of theme park is therefore increasing, creating loyalty for tourist so it has to set significant strategy to attract tourists visiting more

Theme park has the good atmosphere, organize the exhibition to respond the tourist need, there is separation zone of each playing ride such as small children zone, older children zone, adult zone and family zone. Some theme park is located indoor or department store, outdoor and water park according to the marketing strategy of theme park responding tourist need and cover area in the current market the most. Theme park industry has encourage the service potential that makes difference to customer experience received and responding

tourist need all genders, ages, and nationality to create loyalty to theme park and loyalty of tourists who are the service user at theme park in Bangkok

Quality of service consists convenience and speed affecting the loyalty of tourists who are the service user at theme park in Bangkok. Word of mouth, repeatedly, good image, confidence and trust to the service. The one of success of theme park causes the satisfaction of tourist who played rides and activity in theme park. Each theme park has variety playing rides suitable with the ages of tourists and making the tourist to be able choosing also the activity for seeing the parade, show cartoon and other activities which are creating tourists impression and tell to other person about it

Repeatedly is the customer behavior or customer or tourists who has the previous experience in using the service causing satisfied, impressed and happy, there is the positive attitude for quality of service, good image for service and product or tourism attraction become loyalty and repeatedly travel or service in the next time

Theme park industry will achieve sustainable success from tourist impression in service cause the confidence in quality of service for convenience and speed according to tourist need. The most tourist is satisfied in promote their also getting the ticket discount to entry, discount price for playing rides or gift causing the attraction and promote for theme park

# Loyalty of tourism

The loyalty of tourist consists the work of mouth, repeatedly, good image, confidence and trust

Word of mouth means the behavior of tourists who have the tourism experience both of playing ride and tourism activities and other related to quality of service from traveling that their satisfaction and impression their receiving, good image of theme park or tourism attraction become loyalty to tourism branding and affects the word of mouth, suggestion to other person who has the impress experience as well

Repeatedly means the behavior of customer or client or tourist who has the experience in the last time that they feel satisfaction, impression and happy. There is the positive attitude for quality of service, good image for service and product or tourism attraction become loyalty and coming back to travel or using service repeatedly in the next time

Good image means attitude and feeling of customer or tourist for providing service of business or tourism industry cause satisfaction, impression, confidence and trust to provide service through good image of business and service affecting the potential of marketing competitive effectively

Confidence means attitude of tourist toward service in theme park as a whole cause tourist satisfaction and when they return to use the service repeatedly, they still get happiness, enjoy, convenience from the same quality of service last time and better till tourists have confidence and trust becoming the loyalty affecting the theme park industry development and market competition

Trust means the feeling that is the positive attitude for visiting theme park from the whole service because of making tourist happiness and enjoy in all dimension as expected cause satisfaction, impression and confidence that no matter what time they visit this theme park, they definitely receive the happiness that is expected as a result creating the trust in coming to visit next time and can tell other person to know and visit theme park and get the good experience same as myself

#### RESULTS

Factor affecting the loyalty of tourist who use the service at theme park in Bangkok. From studying related research, various factors affect the loyalty of tourist such as location, playing rides and activity, repeatedly and quality of service effectively, convenience and quick which are influence the loyalty of tourists who are the service user at theme park in Bangkok occurring a lot of indoor, in department store, water park and variety theme park pattern additional theme park classifies the targeted group such as children theme park.

#### **CONCLUSION**

Theme park starts to develop more value than the wording of theme park only so the competition of theme park is therefore increasing. Creating loyalty for tourist has to create the important strategy which can attract the tourist to travel at theme park more. The one of theme park success cause the satisfaction of tourist who played rides and joint activity in them park. Each theme park has variety playing rides types suitable to tourist and can make tourist choosing to play as their need also the activity in theme park organize to see the parade, show cartoon and other activities which cause tourist impression till they can tell other person to know the atmosphere in theme park where is beautiful, looing strange when tourists are received service quality included playing rides as their requirement without to wait for a long time with safety. Sightseeing the activities impression, those create tourist satisfaction when tourist get the good experience and exciting such as word of mouth also coming back visiting when they have the opportunity cause the confidence in service and loyalty to theme park or branding or theme park, these make the theme park industry have the potential to compete in the market.

## **ACKNOWLEDGEMENTS**

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# KNOWLEDGE MANAGEMENT COMPETENCY FACTORS AND INNOVATIVE BEHAVIOR FACTORS OF STAFF AT THE FACULTY OF MEEDICINE, RAMATHIBODI HOSPITAL, MAHIDOL UNIVERSITY

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#### **ABSTRACT**

The objective of the study on knowledge management competency factors and innovative behavior factors of staff at the Faculty of Medicine, Ramathibodi Hospital, Mahidol University is to determine the knowledge management competency factors and innovative behavior factors of staff at the Faculty of Medicine, Ramathibodi Hospital, Mahidol University. For this study, the researcher used Secondary data from documentary research process, which comprises the procedures for data collection from studies, research, analysis and synthesis of data from various documents so as to get the composition of knowledge management competency factors and innovative behavior factors of staff at the Faculty of Medicine, Ramathibodi Hospital.

According to study results, the knowledge management competency factors consist of 1.knowledge building process, namely 1.1) requiring staff to be able to use knowledge, experience and expertise available in people to help develop themselves and the team 1.2) creating new knowledge by using knowledge and creativity as an important base for innovative development of the organization 2. deployment process, namely 2.1) applying knowledge available in the organization so that personnel in the organization continuously develop new knowledge 2.2) creating an environment for personnel in the organization to work as a team, help each other through the deployment of knowledge and expertise of team members to solve the problems 3. knowledge management, namely 3.1) available process to manage news, information and knowledge for all staff members by using technology to help manage knowledge through various channels 3.2) systematic knowledge management which will make the organization create more competitiveness.

According to study results, the innovative behavior factors of staff comprise 4 components, including 1. encouraging staff to use creativity for working consisting of 1.1) changing work methods for the better continuously 1.2) urging staff to have perseverance in developing creatively the tasks of responsibility 1.3) implementing the executives' proposed initiatives for working 1.4) creating great excitement and satisfaction when assigned to challenging jobs 2. innovation of staff comprising 2.1) participation in the development of new products, services or processes of the organization 2.2) involvement in the development of new products, services or processes that are different from the previous ones and increase the efficiency continuously 2.3) regular exchanges of operational information with colleagues, teams of other departments 3. proactive working behavior including 3.1) initiating the development of new products, services or processes as well as advising the organization to develop technology before the competitors always 3.2) adjusting operational methods before the occurrence of critical

situations always 4. creating an environment for staff to be creative, including scheduling free time so that staff can improve work processes always and can search for new knowledge always.

**Keywords:** Knowledge management competency / innovation

## INTRODUCTION

At present, business competition at national and international levels has become more intense according to globalization trends. As a result, the organization must adapt to keep pace with the changing situations. Creating a significant competitive advantage is the fact that the organization must be able to continuously innovate. Besides, importance must be attached to bringing the latest innovations into the market before the competitors. The objective is to allow the organization to create a competitive advantage, which is also an advantage of remaining in the long run. For this reason, the current business management concept focuses on creating a competitive advantage through innovation management of the organization. "Innovation" means the use of the word "working smarter", which will replace the word "working harder". The more intense the competition is, the faster changes are required. Therefore, continuous learning through effective knowledge management to keep pace with the world and the changing trends is necessary to enable the organization to compete and maintain excellence sustainably.

Knowledge management today is important and crucial for the organization alongside emphasis on staff because the organization and staff must work to support each other. The collection of knowledge available in the organization, knowledge available in staff while still working and retirees, especially in specific professions such as doctors, nurses, pharmacists is therefore essential. Nowadays, such knowledge is still scattered. So, systematic knowledge management will help create the integration of knowledge. Identifying knowledge, creating and seeking knowledge, systemizing knowledge, compiling and screening knowledge, access to knowledge as well as sharing and exchanging knowledge all support innovative behavior of staff, including making staff creative, leading to staff's innovation, proactive behavior and creativity of staff. This is considered important and is a crucial foundation for the organization to become an organization of innovation later (Hult and Ferrel, 1997), Scott & Bruce, 1991, West & Wallace, 1991, Thailand Productivity Institute., 2005).

Additionally, in an age when the organization needs to become a leader in the same industry, so taking account of the competitors is one factor leading to creation of Value added to products and services in order to build confidence for clients. This is therefore considered an important mission for long-term business operations. The organization's ability to create a competitive advantage over its competitors means that the organization can do business better than its competitors (Somyos Naveekarn, 2005). Consequently, the application of systematic knowledge management is the base for developing innovative thinking process for all staff members of the Faculty of Medicine, Ramathibodi Hospital in order to be on a par with the competitors effectively. Thus, this study on the knowledge management competency factors and innovative behavior factors of staff at the Faculty of Medicine, Ramathibodi Hospital, Mahidol University will be a way to develop personnel and work processes effectively of the organization later.

# **Study objectives**

- 1) To study the knowledge management competency factors of staff at the Faculty of Medicine, Ramathibodi Hospital, Mahidol University.
- 2) To study the innovative behavior factors of staff at the Faculty of Medicine, Ramathibodi Hospital, Mahidol University.

# **Study methodology**

In this research, the researcher used Secondary data as Documentary research with the procedures for data collection from studies, research, analysis and synthesis of data from various documents so as to get the composition of knowledge management competency and innovative behavior of staff at the Faculty of Medicine, Ramathibodi Hospital, Mahidol University.

# **Study results**

According to study results, it was found that the composition of knowledge management competency factors of staff comprises 1) knowledge creation process 2) deployment 3) management as shown in Figure 1.

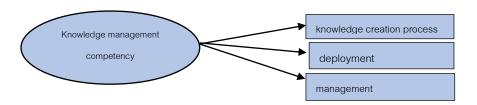


Figure 1: Composition of knowledge management competency factors of staff

According to study results, it was found that the composition of innovative behavior of staff consists of 1. staff's creativity 2. staff's innovation 3. proactive working behavior 4. creativity of staff as shown in Figure 2.

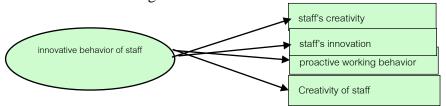


Figure 2: Composition of innovative behavior factors of staff

# **Conclusion and Future Work**

According to the results of studying the knowledge management competency factors, it can be concluded that the knowledge management competency requires a knowledge creation process by requiring staff to be able to use knowledge, experience and expertise available in people to help develop themselves and the team. There are ways to create new knowledge by using knowledge and creativity as an important base for innovative development of the organization, which are used by personnel in the organization. New knowledge is continuously developed and knowledge available in the organization is deployed. Furthermore, personnel in the organization work as a team, help each other. Knowledge and expertise of team members are used to solve the problems that occur. There is management by using the process of managing news, information and knowledge for all staff members by using technology to help manage knowledge through various channels.

Knowledge is managed systematically, enabling the organization to increase competitiveness (Keerati Yodyongyong. 2009, Phayat Wutirong. 2009, Boonanan Pinaisap. 2009, Pannee Suanpleng. 2009, Vijarn Panich 2005, Galia, F., & Legros, D., 2003, Kimberly, JR, & Evanisko, MJ, 1981, Klein, K.J, & Sorra, J.S. 1996).

For the results of the study on innovative behavior factors of staff, it was found that staff's creativity is caused by staff's desire to change work methods for the better, perseverance in developing creatively the tasks of responsibility continuously, use of the executives' proposed initiatives for working always, great excitement and satisfaction when assigned to challenging jobs. Staff's innovation arises from staff's involvement in the development of new products, services or processes of the organization, participation in the development of new products, services or processes that are different from the previous ones and continuously increase the efficiency, constant exchanges of operational information with colleagues, teams of other departments. Proactive working behavior of personnel includes initiating the development of new products, services or processes and advising the organization to develop technology before the competitors always. Operational methods are adjusted before the occurrence of critical situations always. Opportunity-seeking behavior consists of using free time to improve work processes and using free time to search for new knowledge always (Power, W.W, 1990, Schippers, M., & Stam, D. 2010, Feirong, Y., & Richard, W.W. 2010, De Jong, J., & P.J. 2010.)

# **Suggestions for further research**

- 1. Other variables, e.g. strategic management variables should be considered, including the organization reputation concept or the entrepreneurial concept of the organization to study so as to find the causal influence on innovative behavior of staff.
  - 2. The condition of the period should be taken into account for data collection.

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# STUDY THE COMPONENTS OF STRATEGIC LEADERSHIP IN GOVERNMENT AGENCIES

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# **ABSTRACT**

Study research is component of strategic leadership in government agencies has the objective to study the component of strategic leadership in government agencies. This research is the documentary research by using Secondary data from document and related research to study, analysis and data synthesis to get the component of strategic leadership in government agencies. Study result found that the components of strategic leadership of implementing 4 strategies which are planning, organizing, lending and controlling

**Keyword:** strategic leadership/ government agencies

#### INTRODUCTION

Under Provision of the Constitution of The Kingdom of Thailand B.E. 2560 (2017) specified "National Strategy" for the strategic in national development in the long run also reform and system development and mechanism for government administration to drive strategy to put into action seriously which rise the quality level of Thailand in all sector and taking Thailand liberation or relieve violence of current problem condition and able to manage threats and risk management in the future, able to change through the nation with the changing of the new landscape of the world causes Thailand to maintain the role of the world stage, able to maintain nation stability and Thais in the nation is well-being and happy together (The Secretariat of the Senate. 2017)

Agencies now face the disruption of economic, political society, and various technologies affecting all organization causing must adapt to survive and develop continuously. All organization must help to develop human knowledge, having good values for living in society; therefore, organization, which achieved and survive, must be the organization able to encourage and enhance abilities of personnel learning continue across all systems in the organization which mean developing to "learning organization". Organization has sustainable competitive advantage in the changing environment, it is essential that organization has to learn better and faster. Learning organization must have suitable structure, less hierarchy to command, there is learning culture in organization and all employees are involved creating and transferring, there is technology to support learning, focusing on quality, there is supporting atmosphere and there is vision together. The heart of learning organization is the organization where has the excellent leader who has the thinking style, having wide vision and focusing on the strategy (Office of the Basic Education Commission. 2016) it is concerned that organization has a strategic leader

A strategic leader is who focuses on the goal, repeat evaluation and value of organization including determining direction of organization to go and giving operator the power to be creative in their work (Rangsan Prasertsri. 2001). Strategic leader condition is the

process to determine the direction to create the choices and implementing them. Leader in this theory believes that company achieved the objective even though it not based on only luck helping, it must be the result to follow the changing situation environment both internal and external organization. Forecasting the future of organization in the long run and strategic development toward desirable future. Environment in organization now change rapidly. If organization leader does not adapt, it is difficult to manage organization to achieve (Wiroj Sararattana. 2014)

Organization leader has to therefore adapt to changing condition also adapt thinking, doing and how to work based on the goal of the organization including making the officer in the organization and external people have a good concern to organization and leader as well. Executive must pay attention to knowledge, ability of personnel of each person more including to find how to use the benefit from that knowledge and expertise, enhance learning, exchange knowledge and sharing knowledge until it causes flow of knowledge in the organization rapidly. Learning organization is the organization that focus on, activate, urge and attract the people in organization had the motivation learning, self-improvement all the time cause organization has the human capital and can be effective to apply the expertise available in the organization together with empowering people who related the knowledge management and apply technology to expand self-potential. Working team and organization can operate successfully and achieve goal of organization

## **Objective**

To study the components of strategic leadership in government agencies Methodology

This research is the documentary research by using secondary data from document and related research to study, analyze, and data synthesis to get the components of strategical leadership in government agencies

#### LITERATURE REVIEW

Researcher reviewed related literature to collect the components of strategic leadership from specialists and related researchers detail as follow Table 1: Show the source of strategic leadership components

	strategic leadership			
Specialists / researchers	Planning	Organizing	Lending	Controlling
Wiroj Sararattana (2009)	✓	<b>√</b>	<b>√</b>	<b>√</b>
Siriwan Sarerat and Team (2005)	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>
Sutep pongsriwat (2007)	<b>✓</b>	<b>√</b>		
Kanyarat Meungsong (2007)	<b>✓</b>	<b>√</b>	✓	✓
Chawangsak Peuksatawes (2010)	✓	<b>√</b>	<b>√</b>	✓

	strategic leadership				
Specialists / researchers	Planning	Organizing	Lending	Controlling	
Wiroj Sararattana (2010)	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Pichapob Panpea (2011)	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Tawanluck Pungnil (2012)	<b>√</b>				
Wiraporn Deeboonmee (2013)	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	
Kankanat Suwanratbhum (2013)	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Pitoon Silarat (2014)	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Daruwan Tawilkarn (2017)	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
Kerapong Phabhumi (2017)	<b>√</b>	<b>√</b>	<b>✓</b>	<b>√</b>	
Nahavandi, A (2006),	<b>√</b>	<b>√</b>	<b>✓</b>		
Lussier, Rober & Achua Christopher (2010)	<b>√</b>	<b>√</b>	<b>✓</b>	<b>→</b>	
John Adair (2010)		<b>✓</b>	✓	<b>✓</b>	
Matthew Lynch (2012)	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	

# Study result

The components of strategic leadership of implement 4 strategies such as planning, organizing, lending and controlling show on illustration 1

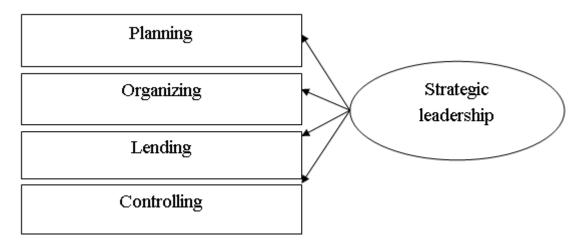


Illustration 1 Show the component of strategic leadership of implement strategy

## **Study result conclusion**

Components of strategy leadership to implement 4 strategies such as planning, organizing, lending and controlling aligned with research of Chawangsak Peuksatawes (2010) studied about the indicator development of strategy leadership of Administrator of Educational Service Area Office, Ministry of Education. Research of Pitoon Sinlarat (2014) studied strategic leadership development model for Secondary school administrator. Research of Wiroj Sararattana (2013) studied the new educational paradigm in case of attitude on education in 21<sup>st</sup> century. Siriwan Sarerate and team (2005), Sutep pongsriwat (2007) sparked idea of "distribution of leadership" and Nanayakkara, G., & Iselin, E. R. (2012)

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# FACTOR INFLUENCING THE SUCCESS OF TUTORIAL SCHOOLS IN THAILAND

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#### **ABSTRACT**

Tutorial school in Thailand regarded an institution where was parents and learner interested and popular in tutorial and developed learning skill for higher education or target examination as desire goal, creating success for tutorial school in Thailand. In the age of high competition caused tutorial school entrepreneur still unable to successfully dominate market space sustainable. Objectives in this research were to study the influence of marketing strategy 7Ps; learning behavior, motivation, learning environment, innovation, institution's image affecting success of tutorial school in Thailand. This research used qualitative and quantitative research method. In quantitative research, sampling group was learners and parents in tutorial school in Thailand for 500 people, sample size group set by using principle 20 times of observation variable, using stratified sampling group method, using questionnaire to collect data and data analysis by structural equation in the part of qualitative used in-depth interview method, target group was learners and parents in tutorial school in Thailand for 18 people. Research result found that marketing strategy variable 7Ps; learning behavior, motivation, learning environment, innovation, institution image affecting success of tutorial school in Thailand, statistical significant level .05 able to forecast together the success of tutorial school in Thailand at 86% besides quantitative research result found that success of tutorial school in Thailand occurred by marketing strategy 7Ps including to promote market, course offered, affordable price, service provided by teacher who had knowledge, ability and famous, proper location, atmosphere is conductive to learning and supporting parent, supported by systematic management, creating innovation in management, provided teaching service by teacher and management innovation in tutorial school could provide quality service according to parents and learner requirement for all cases furthermore still had good image that made learners and parents trust to tutorial school also able to enhance effectiveness of the tutorial excellence that could be taken the power creation guideline in market competition of tutorial school in Thailand

Keyword; Model/ success of tutorial school/ tutorial school in Thailand

#### INTRODUCTION

Economic and social condition of the world are change rapidly all the time caused the impact the competitiveness of people around the world. Technological progress and new innovation used human resource who had knowledge and ability, skill and high experience, expertise in each field to develop nation potential in the world society. Education was highest need to develop all people in nation to be effective. Economic development plan and every issue nation society has given priority to human resource development to prepare to be able appropriated handle impact of change (issued 12th National Economic and Social Development Plan 2017-2021). According to person had a social status and was accepted as need of all people. Good quality education would lead to higher career and good quality of life; therefore, the most parent hoped that their children would be received the best education possible in order to be able to compete examination a reputable institution and have a career that generate higher income. Currently, government school was still unable to meet the need while tutorial school was the answer of most parents hoping to bring their children even student themselves who needed to be more intelligent than other for efficient competition for higher education or famous and ancient institution. Tutorial school had the role and an importance option to meet the need of parents and student in present (Prapawan Chunchaiyakul, 2014) Educational business of tutorial school around the world had continuous grow

Analyze predicted that tutorial market in Unite State would grow at CAGR at 7.09% in during the year 2018-2021in addition the market in Asia-Pacific region was growing every moment. Internet infrastructure improvement helped to increase in the virtual classroom service by private teaching online service provider. The advancement of internet infrastructure has increase the exchange of information and solving problem with real-time example, using more internet led to infrastructural changes such as creating virtual network, using internal organization equipment to operate with private tutorial service provider for system development to align with changes hence the growth of infrastructure was important factor for growth of market in the United State had famous company which operated special teaching such as Kaplan, MindLaunch, Sylvan Learning, TutorMe, Wyzant created the demand for private online tutorial service to comply with educational standard (DUBLIN, April 26, 2018 / PRNewswire)

From literature review inn education on the success of tutorial school which educators were Crotty, J.M. (2012); James Marshall Crotty (2018) and Chad Lykins (2018) found that marketing strategy 7Ps that had famous teacher to develop student who could compete exam field to education institution and working at higher level, there were effective tutorial institution including market to promote and attract the students and parents to select as their need caused the tutorial school popular among learns in part of Singh, Y.G., (2011); Sumaira Kayani, Tayyaba Kiyani, Jin Wang, María Luisa Zagalaz Sánchez, Saima Kayani and Haroona Qurban (2018) found that students that parents had difference income, time, frequency and choosing subjects and teacher affecting the success of different tutorial school Blazar, David. (2016); Seçil Bal-Taştan at.al. (2018); Andrey A. Pavlushin (2018); My Linh

Nguyen (2017) found that different attraction both internal and external affecting success of tutorial school BBC ACTIVE (2018); Ministry of Education, Guyana (2018); WAHITU FRED HIGENYI (2017); Karen A. Tesik (2017) found that learning environment such as friendly, learning method that created understanding to learners, enjoyment, fun to study including media, technology and innovation to encourage learning for learner with the higher score to be able affecting success of tutorial school additional CHRISTINA RACHEL MONTE (2018); Muzeta, Brenda M., (2017); JULIE R. ROBINSON (2018); BRADFORD D. WHEELER (2018) found that the image of tutorial school and teaching technique teacher, famous teacher, achievement of graduates who have good work and entrance exam to the most education institution in the nation made the parents trust, having more learners, popular in students and parents affecting the income and success of tutorial school, tutorial school in Thailand was the non-formal school

From survey of Thai Publicka found that tutorial education had currently 3 majors teaching model as studying with person, video, and computer divided by 2 systems which were learning in tutorial school where had specific school building and tutorial call "tutoring at home" next when learning tutorial is more important. Student wanted to study tutoring more so the tutoring school had expand branches across country. Learning tutorial at famous tutorial institution and popularity for original that there were only 2 styles which were teaching live course and video course. Some tutorial school might have 3 models which were learning with person, VDO, and computer in addition there was also an off-campus tutorial format by parents employed tutor to teach at home or other convenient location i.e. restaurant in department store, office, school etc. to be able appointment time, date and subject that they wanted to study by themselves, most those tutors were student in universities in which each university would be grouped together as institution's tutor such as Chula Tutor, TU Tutor, KU Home Tutor etc. due to tutorial school in Thailand had more learners every year, each institution made different in competition to be option for students and parents including online tutoring was becoming more visible that as the one part to make option for tutoring learner more because online tutoring was cheaper price than traditional tutoring school more. Learner could select studying time according to their needs, learners had not travel to tutorial school so current existing tutorial school currently had necessary to find important point caused the tutorial school existed in the popularity and desired of parents and students stably (https://thaipublica.org/2016)

From literature review, research and those reasons found that factor that influence success of tutorial school in Thailand such as marketing strategy 7Ps; learning behavior, attraction, learning environment, innovation and institution image as a result led to test that successful model of tutorial school in Thailand had any factors or variables affected success of tutorial school in Thailand in order to take result to be guideline to review of impact on administration of tutorial school in Thailand and to create sustainable of tutoring school business nest. The reason and those challenges, researcher was interested to study successful model of tutorial school in Thailand there by setting objective of this research as follow

#### **Objective**

Study the influence of marketing strategy 7Ps; learning behavior, motivation, learning environment, innovation, institution's image affecting success of tutorial school in Thailand

#### RESEARCH METHODOLOGY

This research studied about the success of tutorial school in Thailand model had objectives to study influence of marketing strategy 7Ps; learning behavior, motivation,

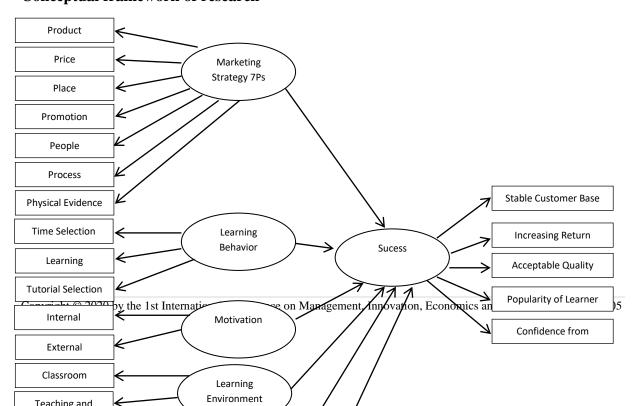
learning environment, innovation, institution image affecting success of tutorial school in Thailand. Researcher use mix methodology method by starting qualitative research had operate to collect data by using questionnaires from sampling group. Learner and parents of learner in tutorial school in Thailand. Researcher specified sampling group by estimating observation variable by 1:20 ratio in this research had 25 observation variables. Researcher specified sample size group for 500 units by selecting simple sample from learners and parents in tutorial school to respond questionnaire about marketing strategy 7Ps; learning behavior, motivation, learning environment, innovation, institution image affecting success of tutorial school in Thailand. After that researcher took data from questionnaires through data collection process and data analysis, investigated that any variable affecting success of tutorial school in Thailand. Quantitative research was used by in-depth interview to confirm the quantitative research result

Population and sampling group; this research studied popular who was tutorial learners and parents in Thailand for 491,538 people (Education Statistics for year 2016 Office the Permanent Secretary Ministry of Education) sampling group to study in this research was tutorial learners and parents in Thailand, setting sample size group by estimating observation variable for 1:20 ratio. In this research had 25 observation variables, researcher set sample size group for 500 units by selecting stratified sample group was step 1 divided into 6 regions, step 2 each region would randomize from 3 provinces, step 3 each province would randomize tutorial learners and parents for 27-28 people per province

Tool in this research was observed by questionnaires that creation questionnaires got from studying and literature review including related research in order to get the factor influence affecting success of tutorial school, there were all 6 variables as 1). Marketing strategy 7Ps 2). Learning behavior 3). Motivation 4). Learning environment 5). Innovation 6). Institution image

Quantitative data collection in the fieldwork data collection, the researcher used data collection method by coordinated to tutorial learners and parents of tutorial students in Thailand for 18 provinces, North was Chiang Mai, Chiang Rai, Lumprang, central region consists Pichit, Lopburi, Nakhon Pathom, Northeast region consists Udontani, Khonkaen, Ubonratchatani, East consists Chonburi, Rayong, Sakaeo, West consists Kanchaburi, Phetchaburi, Prachuap-Khirikhan and South region consists Surat-Tani, Songkhla, Krabi. Data analysis used structural equation model (SEM)

#### Conceptual framework of research



#### RESEARCH RESULT

Phase 1. Research result of marketing strategy level 7Ps learning behavior, motivation, learning environment, innovation, institution image and success of tutorial school in Thailand affecting their success found that variables affecting the success of tutorial school in Thailand collected data from rating scale questionnaire with 5 levels. Descriptive statistics were finding average and stand deviation demonstrate in table 1

Table 1. Average, standard deviation and interpretation of variable levels affecting the success of tutorial school in Thailand (n=50)

Study variable	M	SD	Interpretation		
1. Success of Tutorial School in Thailand (CUSB)					
1.1 There is a stable customer base (CUSBA)	4.59	.63	Highest		
1.2 There is more return (TURN)	4.66	.54	Highest		
1.3 There is good image (IMAG)	4.63	.55	Highest		
1.4 There is acceptable quality (QUAL)	4.55	.61	Highest		
1.5 Like from learner (LIKE)	4.56	.61	Highest		
1.6 Get confidence from learner (CONF)	4.70	.53	Highest		
Average	4.62	.58	Highest		
2. Marketing strategy 7 Ps (STRA)					
2.1 Product (PROD)	4.66	.59	Highest		
2.2 Price (PRIC)	4.65	.54	Highest		

Study variable	M	SD	Interpretation
2.3 Place (PLAC)	4.60	.58	Highest
2.4 Promotion (PROM)	4.49	.67	Highest
2.5 People (PEOP)	4.60	.58	Highest
2.6 Process (PROC)	4.59	.58	Highest
2.7 Physical Evidence (PHYS)	4.55	.60	Highest
Average	4.59	.59	Highest
3.Learning Behavior (LEABE)			
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3.1 Time selection (TIME)	4.58	.61	Highest
3.2 Learning Frequency (FREQ)	4.67	.54	Highest
3.3 Learning tutorial selection (SELC)	4.57	.60	Highest
Average	4.61	.58	Highest
4.Motivation (MOTI)			
4.1 Internal motivation (INTER)	4.57	.68	Highest
4.2 External motivation (EXTER)	4.62	.61	Highest
Average	4.60	.65	Highest
5. Learning Environment (ENVI)			
5.1 Classroom condition (CLAS)	4.65	.59	Highest
5.2 Teaching condition (TEAC)	4.65	.59	Highest
Average	4.65	.59	Highest
6. Innovation (INOV)			
6.1 Production (PRDIN)	4.67	.58	Highest
6.2 Administration (ADMIN)	4.60	.61	Highest
6.3 Service (SERIN)	4.65	.56	Highest

Study variable	M	SD	Interpretation
Average	4.64	.58	Highest
7.Institution Image (INSI)			
7.1 Teacher (TECHE)	4.61	.60	Highest
7.2 Service Process (SERPR)	4.59	.60	Highest
Average	4.60	.60	Highest

From table 1 found that successful of tutorial school in Thailand (CUSBE) was highest level, average of 4.62. For variable that affected successful of tutorial school in Thailand found that all variables were highest level; therefore, marketing strategy 7Ps (STRA) was average of 4.59, all learning behaviors were highest level and average of 4.61, all motivations were highest level and average of 4.60, all learning environment were highest level and average 4.65, all innovations were highest level and average of 4.64, all institution images were highest level and average of 4.60

Phase 2. Research result the variable relationship affecting success of tutorial school in Thailand

Investigation variable relationship affecting success of tutorial school in Thailand by technique of structural equation modeling (SEM) analysis, finished program data analysis (LISREL) proposed research result to adjust SEM model

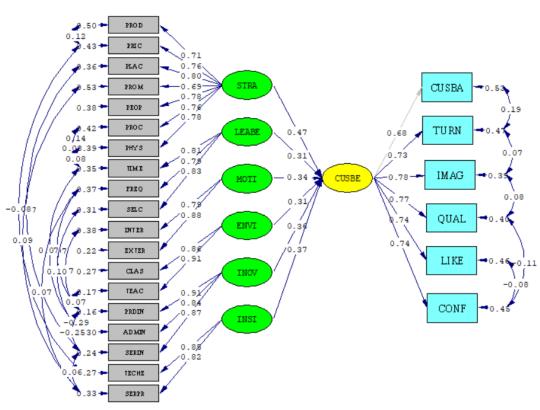
Analysis result of SEM adjustment model

Structural equation modeling of variables affecting success of tutorial school in Thailand where adjusted model to align with empirical data by considering fit index such  $\chi^2=435.00$  df = 224 p-value = .00000,  $\chi^2$  / df = 1.94 , RMSEA = .043 , P-Value for Test of Close Fit = .96, NFI = .99, IFI = 1.00, RMR = .0093, SRMR = .026, CFI = 1.00, GFI = .93,AGFI = .91, CN = 308.94 found that the estimation coefficient or variable occurring in the model for hypothesis testing as follow

- 1. Marketing strategy 7Ps (STRA) had direction positive influence to success of tutorial school in Thailand (CUSBE)
- 2. Learning behavior had positive influence for success of tutorial school in Thailand (CUSBE) influence coefficient was .31, statistical significant level at .05
- 3. Motivation had positive influence for success of tutorial school in Thailand (CUSBE), influence coefficient was .34, statistical significant level at .05
- 4. Learning environment had positive influence for success of tutorial school in Thailand (CUSBE), influence coefficient was .31, statistical significant level at .05
- 5. Innovation had positive influence for success of tutorial school in Thailand (CUSBE), influence coefficient was .36, statistical significant level at .05
- 6. Institution image had positive influence for success of tutorial school in Thailand (CUSBE), influence coefficient was .37, statistical significant level at .05
- 7. Marketing strategy 7Ps (STR), learning behavior (LEABE), motivation (MOTI), learning environment (ENVI), innovation (INOV), institution image (INSI) could

forecast together for success of tutorial school in Thailand (CUSBE) at 86% demonstrated the result analysis as illustration

Structural equation modelling analysis result of variables relationship affecting success of tutorial school in Thailand that adjust model (n=50)



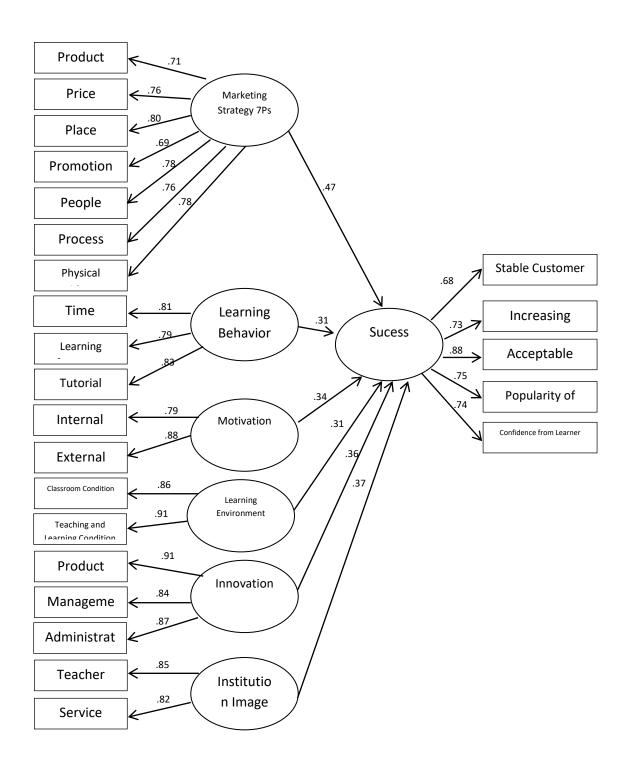
Chi-Square=435.00, df=224, P-value=0.00000, RMSEA=0.043

 $\chi^2\!\!=435.00$  df = 224  $\,$  p-value = .00000,  $\chi^2$  / df = 1.94 , RMSEA = .043 , P-Value for Test of Close Fit = .96,

$$NFI = .99$$
,  $IFI = 1.00$ ,  $RMR = .0093$ ,  $SRMR = .026$ ,  $CFI = 1.00$ ,  $GFI = .93$ ,  $AGFI = .91$ ,  $CN = 308.94$ 

When took Structural equation modelling analysis result causal approach into conceptual framework or research based on all variables such as marketing strategy 7Ps, learning behavior, motivation, learning environment, innovation, institution image (INSI) had positive influence, success of tutorial school in Thailand at the statistical significant level at .05, marketing strategy 7Ps (STRA), learning behavior (LEABE), motivation (MOTI),

learning environment (ENVI), innovation (INOV), institution image (INSI) could forecast together about success of tutorial school in Thailand (CUSBE) at 86% as follow picture



Structural equation modelling analysis result of variables affecting success of tutorial school in Thailand

#### **Summary and Discussion**

This research suggested the important factor affecting success of tutorial school in Thailand. From the study result of marketing strategy 7Ps; learning behavior, motivation, learning environment, innovation, institution image affecting success of tutorial school in Thailand found that marketing strategy 7Ps had positive influence for success of tutorial school in Thailand, influence coefficient was .47. Learning behavior had positive influence for success of tutorial in Thailand, influence coefficient was .31. Motivation had positive influence for success of tutorial in Thailand, influence coefficient was .34. Learning environment had positive influence for success of tutorial in Thailand, influence coefficient was .31. Innovation had positive influence for success of tutorial in Thailand, influence coefficient was .36, statistical significant level .05 by all variables could forecast together for success of tutorial school in Thailand at 86%

From quantitative and qualitative analysis which reported the analysis result according to conceptual framework and hypothesis accordance with theory and relevant literature review caused finding according to the objective of this research as follow

Marketing strategy 7Ps had influence study result of marketing strategy 7Ps affecting success of tutorial in Thailand found that marketing strategy 7Ps had positive influence for success tutorial school in Thailand, influence coefficient was .47, statistic significant .05 to align with B.W.R. Damayanthi (2018); Addi-Raccah, A., & Dana, O. (2015) found that famous teacher was accepted, reasonable price did not cause too much trouble to parents including the location of tutorial school where was the convenience to travel, discount for the person who had many learning hours per week. Chan, C., & Bray, M. (2014) found if it had advertising through easily accessible media, it caused the learner to be able to contact and respond providing service more for Matsuoka, R. (2015) found that if there was welcome and suggestion learner that shown the friendly attention, creating warmth and trust for students and parents particular the options for studying time according to student's requirement caused the learner could select time or pattern their need furthermore Christine Harris-Van Keuren (2016) found that tutorial school had consulting process and how to learn for customer's need caused the tutorial institution to be impressive among learner and parents this was to create confidence and good image affecting higher income from tutorial school business shown the talents variable of product, price, place and promotion, people, process, physical evidence of marketing strategy 7Ps had positive influence for success tutorial in Thailand; however, it found that qualitative research. Specialist said that this is so because learner and parents needed the information and detail about tutorial school. Marketing strategy could respond those requirement to get as course, teacher, price, place, service and other that met the requirement of learner and parents this was the motivation for studying affecting successful tutorial school to align with quantitative research

Learning behavior; study result about the influence of learning behavior affecting the success of tutorial school in Thailand found that learning behavior had positive influence for tutorial school in Thailand, influence coefficient was .31, statistical significant at .05 according to Sumaira Kayani , Tayyaba Kiyani , Jin Wang , María Luisa Zagalaz Sánchez, Saima Kayani and Haroona Qurban (2018) studied physical activities and studying result found that important procedure to increase student academic performance of student was to increase learning frequency and self-esteem which was self-esteem would give positive energy to the academic success. The further Hayede Rezaie Looyeh ,Seyede Fateme Fazelpour Shadman Reza Masoule Ehsan Kazem Nejad Leili (2017) found that learning

behavior of student was quiet good or average level caused learning behavior such as learning plan, increasing diligence in study, notes and review of lessons, before and after to meet teacher, regularly improving your academic performance in part of Blazar, David. (2016) studies the performance of learning and teaching of teacher affecting the academic performance of student. Both attitude and behavior found that from studying confirmed that teacher had a huge impact on student's academic success. The relationship between teacher and each of student, creating happiness in classroom and behavior in the class affecting the academic performance of student besides research results still affected perception ability, capacity of teacher and motivation for science education to align with talent variable in timeline section, learning frequency, tutorial study selection of learning behavior had positive influence for success of tutorial school in Thailand which researcher found. However, from finding on qualitative research from specialist said learning of each child or parents who helped their child choosing different subject, some people learnt everyday, more homework, need convenient location caused the child was not tried of traveling too much or some people had more or less learning equal learning frequency, some people are convenient to study all day off including choosing to study in an institution that meet more requirement consequently behavior in tutorial is important part affecting success of tutorial school in Thailand to align with quantitative research

Motivation; study result about the influence of motivation affecting success of tutorial school in Thailand found that motivation had positive influence, success of tutorial in Thailand, influence coefficient was .34, statistical significant level .05 to align with Janelle Leann Brouwer, (2018) studied the relationship between self-efficacy perception of learner and awareness about academic achievement found that internal motivation affected the student's academic performance and the part of JOSHUA D. BITTINGER (2018) studied learning process as STEM for student who was disability found that motivation to create a new learning style could affect student achievement and still align with VANESSA A. HILL (2018) studies about increasing engagement and success of students in mathematics learning development at Chiang Mai University found that motivation that was learning target and subject of studying would affect the learning efficiency of students besides Ally Hunter (2018) studied about role of basic knowledge in case study in education biology class found that learning environment that learning had activities to respond the requirement of study in the 21st century had variable affecting academic was teaching characteristic, small group work, study who had positive feeling for learning and teacher's teaching strategy result higher learning achievement when received knowledge transferring regard as positive motivation for learning to align with talent variable internal motivation. External motivation that researcher found motivation had influence for success of tutorial school in Thailand. However, from finding in qualitative research from experts had commented that this was the case because studying needed of learner and goals of parents were important part that motivation in tutorial academic both internal and external motivation in decision to choosing tutorial academic. If tutoring institution could respond to these motives, it was success coming to tutorial school where aligned with qualitative research

Learning environment; studying result about the influence of learning environment that was success of tutorial school in Thailand, influence coefficient was .31, statistical significant level at .05 to align with CHRISTINA RACHEL MONTE (2018) studies about ability to learn after class found that learning environment that fun, warm and relax caused learning after class had more efficiency and still align with Muzeta, Brenda M., (2018) found that learning stressful environment would improve the learning efficiency of children. Ministry of Education, Guyana (2018) concerned environment in class which was important for students and teacher everything from color of wall to the arrangement of the table affected

academic of students and might affect emotion and perception of student as well. Emotional environment was to create positive learning environment to be important for success in class. Teacher should create warm environment which student felt safety and welcome to share. Classroom should be created equality for all students, students should know each other. Teachers who used humor in class also created a more positive environment for physical environment. Organizing the physical environment of the classroom meant placing a student desk, classroom decoration, the work desk arranged in a circle gives a feeling of sharing, color of the wall and decoration on the wall also affects warm feeling while studying as well from finding qualitative research from expert had commented that this was because clean classroom, beautiful, clean school desk, having light enough, to be quiet classroom, light in color classroom and comfortable, to create a feeling of relaxation for students, conductive to learning, the more teachers who were good mood, enjoy, funny, creating an atmosphere that was not stressful but able to give knowledge and develop as many students as possible caused the parents and tutorial learner decided studying as their requirement that learning environment could affect success of tutorial school to align with quantitative research

Innovation; study result about the influence of innovation to success of tutorial school in Thailand found that innovation had positive influence to success of tutorial school in Thailand, influence coefficient was .36, statistical significant level at .05 according to BRADFORD D. WHEELER (2018) found that took Active Classroom to use in this study by taking technology to support learning for learner and still increased more understanding to join active learning classroom (ALCs) which used experiential learning theory of Kolb (1984, 2014) faculty of teachers got more comfortable in teaching combined with the learning of learner more success as well which is the main target of tutorial school Agnes Ghansah (2017) studied about supporting capacity of special teaching after school found that learning time and efficiency of teacher including to use of modern innovations in learning management which increased potential to support the achievement of academic efficiency of learner and reputation of tutorial school and related to JOSHUA D. BITTINGER (2018); I- AN CHEN (2018) studied about taking innovation used in this study found that students had learning development by using educational technology and new method model to increase more participation in group activities caused student to discover more about their abilities but should integrate with technology. Research shown that the need for teacher should know technology as learner before applying with learner in classroom to create more understanding so learning technology was the role model in the teaching and learning curriculum to encourage learning for learner efficiency to align with finding talent variable of product, management, service of innovation that had influence for tutorial school in Thailand according to finding in qualitative research from experts recommendation that this was because innovation could create difference in competitive market of tutorial school including opening academic subject which most child needed, exploring teacher who had knowledge and ability, reputation, and most learner needed to use service including new management method to more respond learner and parent's requirement affecting continuous and sustainable success to align with finding in quantitative

Institution image; study results the influence of institution image to success of tutorial school in Thailand found that institution image had positive influence to success of tutorial school in Thailand, influence coefficient was .37, statistical significant level at .05 to align with Serap UZUNER YURT and Elif AKTAŞ (2016) found that learners were successful in the entrance examination for the famous institution such famous university after receiving tutorial academic which was the good image of parents and learners internal feelings in deciding to study tutorial academic. Janelle Leann Brouwer (2018) found that teaching of teacher affected the learning efficiency of learner and still related to Karen A. Tesik, (2017)

studied about leading of learning and teaching and learning in classroom in 21st century found that the major challenges faced by school system which was the urgent requirement to change the traditional classroom into learning environment in 21st century to make understanding what was affecting this change. School had to leader to change that was teacher in 21st century, communication, working together, critical thinking, and creative thinking, participation of students, transformational leader had to make more the student participation caused the learner got the positive image for learning. Valeria A. Russ (2015); Blazar, David (2016) found that education institution both private and government sector where had famous teacher who had teaching ability, excellent level caused the education institution image acceptable that most people need. Farhan Alshammari, Reynita Saguban, Eddieson Pasayan, Ahmed Altheban, Layla Al-Shammari (2018) found that educational service process also played an importance role in learning image of learner that this was because learning which had smart teacher to create understanding for learner also to create confident and learner had good image to study, exploring in qualitative research from expert recommendation that service met exceed requirement in learning beyond expectation caused learner and parent's trust and there was good image to tutorial school, had advice and telling and loyalty to tutorial affecting tutorial school sustainable successful to align with quantitative research found that talent variable of teacher, service process of institution image had influence to success of tutorial school in Thailand

#### Recommendation

From doing research of that success model of tutorial school in Thailand, researcher recommended as follows

#### **Academic recommendation**

From research found that influence of variable that affected the success of tutorial school in Thailand had relate to variable of marketing strategy 7Ps, learning behavior, motivation, learning environment, and institution image had statistical significant level .05 could be forecasted together for success of tutorial school in Thailand at 86%; hence, researcher proposed academic recommendation as government by Ministry of Education in the department of Private Education Office in supporting the operation of tutorial school to be the alternative of learners and parents interested and had educational target as their desire which created the strengthen in tutorial school business operation in Thailand through sustainable successful

#### **Recommendation as policy**

According to the academic which was the power creation in market competition of tutorial school in Thailand by government and department to relate with Ministry of Education should set cooperation policy to support operation of tutorial school in Thailand in order to create the future of nation and parallel to promote economy of nation; moreover, set the integration guideline of applying innovation and technology to exchange and learn between teacher in government institution and teacher in tutorial school for joining development the nation's youth to become the world citizen with potential next

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# MEASUREMENT OF SUSTAINABILITY IN AGRO-INDUSTRIAL BUSINESS

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#### **ABSTRACT**

The social and environmental impacts caused by the modernization of agribusiness have evoked a growing interest in the search of balance between social economics development and the adequate use of natural resources, driving the country to sustainable development. Therefore, the main aim of this article is to measure of sustainability in the agricultural sector, which satisfy the concept of both economic, ecological dimensions and social functions. To reach this purpose, the method of literature review, to perform consistent productive strategies with the maximization of social welfare, despite the apparent among these three dimensions. It draws majorly from documentary. The paper recommends a robust political will, a sound ideological frame, adequate funds among other measures to develop a strong interface between agricultural policies and politics in achieving a sustainable agribusiness as a veritable tool for rural development in Thailand.

This result can be considered of prominent importance for sustainable development in Thailand and can also serve as a reference in the definition of goals of the business plan.

**Keywords:** Corporate Sustainability, Agro-Industrial Business.

#### INTRODUCTION

Agro-industries provide a primary means of converting raw agricultural materials into value added products, while generating income and employment and contributing to overall economic development. They employ a range of technologies, ranging from very simple technologies such as drying of a single product, to more complex technologies such as the irradiation of formulated products [2]. The sum of all operations involved in the manufacture and distribution of farm supplies; production operations on the farm; and the storage, processing and distribution of farm commodities and items made from them. Related with farm level, people, social and environment. Therefore, agriculture businesses are important for life at a high level. Consists of 5 sub-systems such as 1) The Inputs Sub-system: This is the first sub-system from which all other agribusiness sub-systems emanate. Here, all inputs (e.g. fertilizers, seeds, machineries, etc.) are manufactured, imported. 2) The Production Subsystem: Inputs are directly used for the production of an agricultural commodity as endproduct in itself or as raw-material for the production of other products. 3) The Processing Sub-system: The commodities from the production sub-system are transformed into various products. The levels of transformation depend upon the level of processing, which can be as simple as washing and grading to as complex as chemical alteration. 4) The Marketing Subsystem: This subsystem is concerned with the transfer of goods from source to end-user. It includes all handling procedures and infrastructures that move the commodities from one point to another. The marketing sub-system may take the following routes example; a) Transfer of agricultural inputs from manufacturers to farm input users; B) Transfer of commodities from production site to processing site; (3) Transfer of commodities from processing site to end-consumers. 5) The Support Sub-system: consists of all the key players that provide services, however, optional, but crucial to the success of an agribusiness venture. These services are provided by institutions such as government agencies, commercial associations, credit and financing, research organizations and cooperatives. The government plays an important role in providing a policy environment that is favorable to agribusiness enterprises such as policies on prices, imports, exports and general trading. All the subsystems are strongly interrelated, and the coordination among them is a necessary for success of agribusiness.

#### LITERATURE REVIEW

## 2. 1 Corporate Sustainability Theory

Over the past decade, sustainability has become a central topic in international business and management research as corporations have been increasingly interested in assessing their environmental, social, and development impacts (Malik M. 2015). Corporate sustainability is linked to inclusive development, which encompasses people, social, political and economic process for increased human well-being, social and environmental and empowerment. Sustainability is a multi-dimensional sustainability, encompassing environmental, social, and economic dimensions. Such dimensions form the conventional model for sustainability (as shown in Figure 1). Corporate sustainability can have different meanings depending on the business context. Fundamental, the concept of sustainability can be defined as "meeting the needs of the present without compromising the ability of future generations to meet theirs." That being said, three primary pillars are often associate with the topic of corporate sustainability: social, environmental, and economic. Combined, these core components help corporations embrace sustainability in a way that is beneficial to efficiency, sustainable growth, and shareholder value.

Furthermore, the corporate sustainability model requires alignment of firms' strategies and supply chain networks. A set of sustainable production indicators for measuring the related performance in sustainable operations and management activities that is applicable for improving sustainable and strategic development (Ming-Lang Tseng, Ming K. Lim, Kuo-Jui Wu, 2018) demonstrated that the lack of strategic orientation in corporate sustainability is one major reason for the lack of the opportunities, benefits, risks



Figure 1 : Three pillars of Sustainability Source : Vijayalakshmi B. Samuel, (2012)

The three pillars of corporate sustainability such as economic, social, and environmental, work together to help organizations strive for more sustainable practices. Businesses need to move from an outdated sense of fast profits at the expense of the environment to a more mutual interdependence and eco-innovation. Adopting sustainable practices not only helps the environment, corporations have proven that sustainability lead to an improved brand image, reduced costs, happier shareholders, increased productivity, and countless more benefits. Sustainability is here to stay.

This literature review article aims to bring a better understanding to the field of corporate sustainability. Research result found that corporate sustainability indicators in agroindustrial business has 3 dimensions such as 1). Economic dimension. 2) Environment dimension 3) Social dimension as following Table 1.

Table 1: Literature review article supported measure corporate sustainability.

No	Author	Economic dimension	Environment dimension	Social dimension
1.	Marie Pavláková Docekalová, Karel Doubravsky, Mirko Dohnal, Alena Kocmanová, (2017)	- Cash flow - Return on assets	<ul> <li>Consumption of Recycle materials and raw materials</li> <li>Fuel consumption</li> <li>Waste production</li> <li>Environmental costs</li> </ul>	<ul> <li>Wage discrimination</li> <li>Violations of the Code of Ethics</li> <li>Percentage of employees covered by a collective agreement</li> <li>Occupational diseases</li> <li>Percentage of products which the impact on the health</li> </ul>
2.	Chaminda Wijethilake, (2017)	<ul> <li>Reduce costs of inputs for same level of outputs</li> <li>Sold waste product for revenue</li> <li>Delete Created spin-off technologies that could be profitably applied to other areas of the business</li> </ul>	Reduce environmental impacts of production processes     Reduce operations in environmentally sensitive locations     Reduce likelihood of environmental accidents through process improvements     Reduce waste by streamlining processes     Used waste as inputs for own processes     Dispose of waste responsibly     Handled or stored toxic waste responsibly	<ul> <li>Considering interests of stakeholders in investments by creating a formal dialogue.</li> <li>Communicating the firm's environmental impacts and risks to the public.</li> <li>Improve employee or community health and safety.</li> <li>Protect claims and rights of local community.</li> <li>Show concern for the visual aspects of the firm's facilities and operations</li> <li>Recognize and acted on the need to fund local community initiatives</li> </ul>
3	Füsun Küçükbay, Ebru Sürücü, (2018)	<ul> <li>Cash Flow</li> <li>Income Tax Paid/ Net sales</li> <li>Total Donations         Net Sale / GDP     </li> </ul>	- Total Energy use Total CO2 emissions/million in revenue	<ul><li>Net employment creation</li><li>Women employees</li><li>Full-time employees</li></ul>
4.	Hulya Julie Yazici, (2020)	<ul> <li>Innovation and technology, efforts in sustainability related R&amp;D.</li> <li>Collaboration with business partners.</li> <li>Knowledge management activities of sustainability related knowledge within the organization.</li> <li>Process-related efforts, process management on sustainability.</li> <li>Purchase/outsource contracting, sustainability issues in purchase, relationship with suppliers.</li> <li>Sustainability reporting</li> </ul>	<ul> <li>Sustainability strategies related to resource use</li> <li>Emission.</li> <li>Waste and hazardous waste.</li> <li>Biodiversity</li> <li>Environmental aspects of the product over the whole life cycle.</li> </ul>	- The level of corporate governance - motivation and incentives - health and safety efforts, - human capital development ethical behavior and human rights controversial activities no corruption or cartel efforts - corporate citizenship efforts

#### RESEARCH METHODOLOGY

This paper present systematic review of corporate sustainability literature, theoretical background related research and the definitions of attributes, and proposes analytical measures and methods.

#### **RESULTS AND FINDINGS**

This section discusses the results and findings of the research, found that the sustainability includes three dimensions, i.e., economic dimension, environment dimension and social dimension. Economic dimension in agro-industrial business is measured by two item such as the cash flow, return on assets (Marie Pavláková Docekalová, Karel Doubravsky, Mirko Dohnal, Alena Kocmanová, 2017). Environmental dimension in agro-industrial business is measured by five items such as sustainability strategies related to resource use, emission, waste and hazardous waste, biodiversity, environmental aspects of the product over the whole life cycle (Hulya Julie Yazici, 2020). Social dimension in agro-industrial business is measured by six items such as considering interests of stakeholders in investments by creating a formal dialogue, communicating the firm's environmental impacts and risks to the public, improving employee or community health and safety, protect claims and rights of local community, showing concern for the visual aspects of the firm's facilities and operations, recognizing and acted on the need to fund local community initiatives (Chaminda Wijethilake, 2017).

#### **CONCLUSION AND DISCUSSIONS**

Research result of the suitable sustainability measurement in agro-industrial business in Thailand were 3 structures such as economic dimension, environment dimension, social dimension 13 indicators.

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# COULD THAILAND USE ITS STRENGTH AS A RICH AGRICULTURAL COUNTRY TO ENGROSS FLAVOR INDUSTRY

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#### **ABSTRACT**

This research study is to address the important of flavor in today food &beverage industry and possibility of Thai to use its strength as a rich agricultural product country to engross Flavor industry. As flavor is a group of raw material specialties in Business to Business (B2B) environment, it is therefore not known widely but only to the specific group in food and beverage industry. Source origin of flavor is from agricultural sector, with quite a long journey (value chain), before ending it as high value specialties ingredients to apply in all types of manufactured foods and beverages. The remarkable growth and profit of the flavor industry can add tremendous value to agricultural segment of Thailand as well as new entrepreneurs who enter this new innovative venture. This research is a documentary research using secondary data from various documents and related research in the topics of flavor, agricultural product and new business venture. Analyze and synthesize information to obtain the angles that show possibility for Thai entrepreneurs to engross flavor business. Result from the Literature Review shows that there are possibilities for Thailand to play in this new flavor field due to the following reasons:

- 1. Rich of agricultural products to be a starting point of raw materials for Flavor production.
- 2. The National Strategy 2017-2036 on Competitiveness Enhancement is to **creating new future values**, aiming at increasing farmers' incomes, which means that the development is placed on high quality agriculture and technology and innovation driven agriculture.

This finding is an important trigger to all stakeholders who are in this value chain to rethink about another innovative way to add value to our agricultural products. This will benefit farmers, food processor, and the country from being more independent on imported high value flavor products and additional country revenue from export of this new innovative flavor product derived from Thai Agricultural sector in the future.

**Keywords**: Agricultural product, Flavor, new venture

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# A STUDY OF LOCAL CUISINE THROUGH THE SHORT FILM, SALAYA DISTRICT, NAKHON PATHOM PROVINCE: SUAN SUNANDHA RAJABHAT UNIVERSITY

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#### **ABSTRACT**

This research was aimed to study the lost local cuisine through the short film, Salaya District, Nakhom Pathom Province. The research was the qualitative research by conducting the interview with 2 elderly persons in Salaya District. The findings revealed that Bon Curry, Frog Salad, Banana Blossom Salad were the antique local cuisine and lost in the daily life. A study of the lost local cuisine through the short film, Salaya District, Nakhom Pathom Province interfered a story of lifestyle, belief and recipe with Thai herbs, it revealed that Salaya District was located nearby Mahasawat Canal and a belief of Bon Curry which made a cooker and eater feeling itch was false, a cook knew how to remove its calcium oxalate before cooking with Thai herbs for such roasted chilli curry, boiled fish and kaffir lime.

**Keywords:** Local Cuisine, Short Film

# THE SERVICE QUALITY ASSESSMENT IN MCDONALD'S AT BANGKOK

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#### **ABSTRACT**

The purposes of this research were to study the service quality assessment in McDonald's (Victory monument branch, Bangkok) and develop strategy to improve service quality. It is related to SERVQUAL researches and expectation theory. The population of this research is 1,100 customers who buy foods and products in McDonald's, Bangkok (Victory Monument Branch). The sample group is 294 people By Taro Yamane and using the sampling method equals 294. Questionnaires are used and analyzed in statistic Percentage, Frequency, Mean, Standard Deviation, and Paired Samples T-Test.

The research findings were as follows:

- 1. Customers come to McDonald's Victory Monument Mostly female. 58.20% are between 19-23 years old. This was 22.11%, followed by the age between 24-28 years, or 21.77%. Most of the employees were private employees, 39.10%. Secondary students at 35.70 percent, most of them are at the undergraduate level. Accounted for 49.70% Secondary is secondary. 29.90% and the average monthly income is 10,001 baht. This was followed by the income of Baht 6,001 8,000 or 14.60%.
- 2. Customers have a high level of expectations for service quality. The mean score was 3.95 and the level of perceived quality of service was also high. The average score was 4.03 and when comparing expectations and perceptions to quality of service The result is a level of perceived perceived quality of service, rather than an average score of expectation. It is concluded that the customers are satisfied with the service of McDonald's Victory Monument
- 3. The level of expectation for quality of service and the level of perception of service quality are different in all four aspects, except for the specific aspects of service. This did not significantly affect the level of perception of expectation at the 0.05 level.