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Thursday 19 May 2016, Faculty of Business Administration, Rangsit University,
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Submission Deadline: February 28, 2016

TOPICS: The organizing committees welcome submissions in all areas of innovative business and entrepreneurship for presentation at the conference no later than May 19, 2016 (early submission is exceedingly encouraged). The main topics of the conference include, but not limited to: Entrepreneurial Management; Business

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THE INFLUENCE OF PHYSICAL ENVIRONMENT, EMOTIONS, AND CUSTOMER SATISFACTION ON BEHAVIORAL INTENTIONS IN XYZ COFFEE

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Abstract

This study is withheld with the purpose of finding the influence of physical environment on consumer emotions, customer satisfaction, and behavioral intentions in XYZ Coffee. Hence, there are six hypotheses in this research, such as: 1) physical environment is positively related to customer emotions; 2) physical environment is positively related to customer satisfaction; 3) physical environment is positively related to behavioral intentions; 4) customer emotions is positively related to customer satisfaction; 5) customer emotions is positively related to behavioral intentions; 6) customer satisfaction is positively related to behavioral intentions.

The target populations of this study are students of the faculty of economics in UPH. The sampling technique that was utilized in this study is convenience sampling. The number of samples that were gathered for this study was 320 samples. Partial least square structural equation modeling (PLS-SEM) was used as the data analysis method of this study.

Based on the hypothesis testing of this study, it is found that the physical environment is positively related to customer emotions, customer satisfaction, and behavioral intentions, customer emotions are positively related to customer satisfaction and behavioral intentions, and customer satisfaction is positively related to behavioral intentions.

Keywords: *physical environment; emotions; customer satisfaction; behavioral intentions.*

Introduction

In the world market, coffee is one of the five most significant commodities (Taylor, 2005). It is also mentioned as the second most significant agricultural commodity in the world (Nestle, 2004). Coffee's popularity in Jakarta has increased rapidly since the past years. Coffee has become a lifestyle for Indonesians and it has become a fundamental routine. There is a rapid growth rate of coffee business in Jakarta; either it is coffee shops or coffee productions. Indonesia is one of the biggest coffee exporters in the world with 1,309,505 ha of land for coffee plantation (Ibrahim & Zailani, 2010).

Hence, Indonesia is the second largest coffee dealer in terms of area of coffee plantation. There is a steady growth of the development and growth of Indonesia's coffee industry since 1986 to 2009 (Ibrahim & Zailani, 2010). Nowadays, coffee shops are not just a place to have a cup of coffee, but it has become a meeting point for office workers as well as businessmen. It has also become a place where people relax, work, and haunt. Coffee shops in Jakarta range from a large corporate level to a local single proprietorship level. A corporation is an independent legal entity structured in the state authority where owners are accountable for debts and compulsion of the corporation based on the amount of their investment.

A sole proprietorship is a business organization consisting of a single person. In sole proprietorship, the owner is the business itself and has no limited liability (Barringer & Ireland, 2012). XYZ coffee has been in the business since April 2015, it is a corporation and is available in several cities such as Medan, Jogja, Manado, Kupang, Palembang, BSD, Bogor, Lippo Village Karawaci, Buton Island, Bali, and Surabaya. Since XYZ coffee has just started their business in 2015, they are not as popular and known as other coffee shops that have been in the business for quite some time. Based on an interview with the manager of XYZ coffee, Mr. Guruh, XYZ Coffee in Benton Lippo Karawaci has been opened since January 2016. Based on the questionnaires that have been distributed to thirty respondents, the first coffee shop that comes to the mind of the respondents is Starbucks with thirty votes. The second place is occupied by Coffee Bean with eighteen votes, while XYZ Coffee has conquered the third place with fifteen votes.

Since XYZ Coffee has just been in the business for less than one year, thus they are still novel and not many people neither had try nor recognize them. Hence, XYZ coffee needs to increase its familiarity, popularity, and service to capture new and retain existing customers. If people are willing to return to XYZ Coffee, they eventually may become a regular customer for the service provider. Customers who are loyal may have different causes such as the taste of the coffee, the quality of the service, and the physical environment of the service provider. Thus if there are more people who are willing to come to XYZ Coffee and become a loyal customer, thus, XYZ Coffee rankings among other coffee shops in Lippo Karawaci might increase to the second or first place.

Based on this reason this study will replicate the model of the study by Ali and Amin (2014) on a coffee shop named XYZ coffee. The study conducted by Ali and Amin (2014) distributed a total of five hundred questionnaires to customers of resort hotels in four different cities of China, and one hundred seventy of them were returned. The result of the study indicates that customers who have higher perceptions of the physical environment are more probable to have positive emotions, increasing customer satisfaction and behavioral intentions. Hence, Chinese resort hotels need to increase its attention on upgrading the facilities to generate positive emotions and

relationships with its customers. The population that will be utilized in this study is the students of management school in UPH.

The main purpose of this study is to analyze the influence of physical environment on emotions, customer satisfaction and behavioral intentions in XYZ Coffee. As the competition in businesses turn more intense, the means to get advantage lies in creating a high quality service that will result in consumer satisfaction. Customers' positive emotions can be derived from delivering a good and appealing physical environment that will lead to customer loyalty and satisfaction.

This paper consists of the theoretical background and concepts, research methodology, and the findings, implications, and future research suggestions.

Literature Review

Physical Environment

The physical environment is defined as “the appearance of buildings, landscaping, vehicles, interior furnishings, equipment, staff members' uniforms, signs, printed materials, and other visible cues” (Lovelock & Wirtz, 2011, p.48). Hence it is important for service providers to maintain their servicescapes in order to obtain customer satisfaction. There are several dimensions of a service environment such as the ambient conditions, space and functionality, and signs, symbols, and artifacts (Lovelock & Wirtz, 2011).

Most of the time, customer of a service firm relies on the tangible cues or the physical evidence to evaluate the service before the purchase and to gauge the satisfaction of the service during and after the consumption or use (Zeithaml, Bitner, & Gremler, 2013). According to Kotler, the atmosphere or the physical environment of the place can be equally important as the product itself in the purchase decision making of the customers (Han & Ryu, 2009). Bitner defined the term servicescape as the built environment or the man-made physical surroundings. Physical surroundings consist of the objective physical elements that can be directed by the firm to intensify customer internal and external responses (Han & Ryu, 2009).

According to the Mehrabian Russell Stimulus response model, there are two typical outcomes from the environmental psychology such as approach or avoidance of an environment, which means that people may choose to visit or not to visit the place (Wirtz, Chew, & Lovelock, 2012). How people feel in this model is influenced by the conscious and unconscious interpretation of the physical environment. The response to the physical environment in the model is driven by feelings. Hence, feelings are an integral factor in the model; feelings drive the behavior of the customer (Lovelock & Wirtz, 2011)

Emotions

Emotion is defined as “a person's affect – feelings and moods– plus arousal” (Kardes, Cline, & Cronley, 2011, p.180). Emotions are heavily related to needs, motivation, and personality. Needs that have not been met creates motivation which is concerned to the arousal component of emotion. Needs with are unmet produce negative emotions whereas needs that are met produce positive emotions. Thus, firms that obtain positive consumption emotions expand their customer satisfaction and loyalty (Hawkins & Mothersbaugh, 2010).

Little and simple feelings that people may think of non-importance may have a great impact on customer behavior (Kardes, Cline, & Cronley, 2011). Little things may include items like a good weather, receiving small gifts and compliment, and perhaps finding a dollar in the street. Little things may generate positive emotions. When people are in a good mood, people would react more positively towards a stimulus in the environment.

Consumers who are in a better mood are more open to handling information and take more time in the decision making over those who are in an inferior mood (Hoyer & MacInnis, 2010). When the customers are in an extreme mood such as extremely happy or extremely sad, they would process the information less meticulously. Mood also influences how the customers evaluate the product or service experience.

Customer Satisfaction

Customer satisfaction is defined as “the consumer’s fulfillment response. It is a judgment that a product or service feature, or the product or service itself, provides a pleasurable level of consumption-related fulfillment” (Zeithaml, Bitner, & Gremler, 2013, p. 80). In other words, satisfaction can be defined as whether the customer’s expectations are met or not in a service or product experience (Zeithaml, Bitner, & Gremler, 2013). Hence, if the customer’s expectations are met it results in satisfaction. If the customer’s expectations are not met it results in dissatisfaction.

Consumer’s post-purchase evaluation of a service experience determines customer satisfaction (Kardes, Cline, & Cronley, 2011). Customer satisfaction will affect customers’ future purchases. If a customer is satisfied there is a higher chance that they would repeat the purchase rather than a customer who is not satisfied. Satisfied customers are more likely to spend more on the product or service of their preference. Customer satisfaction are also determined by the product and service features, customer emotions, attributions for service success or failure, perceptions of equity or fairness, and other customers, family members, and coworkers (Zeithaml, Bitner, & Gremler, 2013).

Customer satisfaction is a key for building true customer loyalty. Customers who are highly satisfied are more likely to enhance their purchases, purvey positive word of mouth, and become staunch advocates of the firm. Recent researches found that increase in customer satisfaction also increases the price of the firm’s stock (Wirtz, Chew, & Lovelock, 2012).

Behavioral Intentions

The behavioral component of one’s attitude is defined as a person’s propensity to respond toward an object or activity in a particular manner (Hawkins & Mothersbaugh, 2010). Decisions on whether to purchase a certain product or service, and decisions to repeat the purchase and recommend it to others would demonstrate the behavioral component. The behavioral component will eventually turn into behavioral intentions.

Behavioral intention is defined as “the willingness to recommend the service to others and repurchase intent” (Zeithaml, Bitner, & Gremler, 2013, p. 120). Behavioral intentions may be positive or negative response to a service or product experience. A positive behavioral intention includes recommending the products to others, spread positive comments about the product or service, becoming a loyal customer, willingness to spend more on the company and becoming less price sensitive. On the other hand, negative behavioral intention may include sparring

negative comments about the product or service, buying less from the company, and switching brands.

Behavior may herald the establishment of cognition and affect, or it may transpire due to the cognitive and affective components, cognition is what a consumer belief about a product while affect is the feelings that customers have towards the product (Hawkins & Mothersbaugh, 2010).

Hypotheses Development

Relationship between the physical environment and consumer emotions

Customers often depend on the physical environment to help them make purchase decisions and evaluate a service or product experience during and after consumption (Zeithaml, Bitner, & Gremler, 2013). From the literature elaborated in this study, it is clear that the physical environment in the servicescapes have an effect on consumer's emotions. According to Han and Ryu (2009) how consumer behaviors is affected by the physical environment is especially germane in service industry providers such as the restaurant industry (Han & Ryu, 2009). The service physical environment can generate emotional responses that influence behavior. Any environment, natural or contrived, can influence consumer emotions that are pleasure-displeasure and degree of arousal (Zeithaml, Bitner, & Gremler, 2013).

A previous study had proved that the physical environment generates consumer emotions (Pareigis, Edvardsson, & Enquist, 2011). Experiences in the service provider store that is its physical environment are positively related to customer emotion (Lin & Liang, 2011; Jang, Liu, & Namkung, 2011). Thus the following hypothesis is developed:

H1: Physical environment is positively related to customer emotions.

Relationship between the physical environment on customer satisfaction and behavioral intentions

Customer satisfaction is dependent on whether the customer's expectations are met or not (Zeithaml, Bitner, & Gremler, 2013). Thus, behavioral intention is whether customer would like to repeat a purchase decision or recommend the service or product to other customers (Zeithaml, Bitner, & Gremler, 2013). Delightful environment will lead to approach while non-delightful environment will lead to avoidance. Stimulation increases the effect of satisfaction on behavior. If the environment is delightful, thus an increase in the stimulation would create a positive response. While if the environment is not delightful, the increase in stimulation would then result in a stronger negative response (Wirtz, Chew, & Lovelock, 2012). The physical environment of a store is positively related to customer satisfaction (Lin & Liang, 2011).

Study found that the physical environment heavily influences customer's positive and negative emotions which are mediators between the physical environment and behavioral intentions (Jang, Liu, & NamKung, 2011). The physical surroundings may influence the approach-avoidance behavior of customers, it also reflects the image of the service provider and is a predictor of customer perceived value. Thus the following hypotheses are developed:

H2: Physical environment are positively related to customer satisfaction.

H3: Physical environment are positively related to behavioral intentions.

Relationship between consumer emotions on customer satisfaction and behavioral intentions

Consumer emotions include the moods and feelings of the customer (Kardes, Cline, & Cronley, 2011). Consumer emotions can influence the conception of satisfaction of products and services. When a consumer has a good feeling, the good feeling will eventually transfer to how the consumer feels about the services. While if a consumer have a bad feeling, it would create a negative influence on how the consumer feels about the services (Zeithaml, Bitner, & Gremler, 2013). Thus, consumer emotions influence customer satisfaction in a negative or positive way. If consumers were satisfied, they would eventually come back and perhaps become a loyal customer. Thus there is a relationship between consumer emotions, customer satisfaction, and behavioral intentions.

A study found that consumer emotions are positively related to customer satisfaction and behavioral intentions (Lin & Liang, 2011; Jang, Liu & Namkung, 2011)). Any evolvment in consumer emotions influences the level of customer satisfaction. Evolvment in the level of customer satisfaction influences the behavioral intention of the customer. Thus the following hypotheses are developed:

H4: Customer emotions are positively related to customer satisfaction.

H5: Customer emotions are positively related to behavioral intentions.

Relationship between customer satisfaction and behavioral intentions

If a customer is satisfied, there is a hope that they would repurchase the service or product experience. If they continually purchase the service or product, they might become a loyal customer. The behavioral intentions refer to whether customers would like to return and repurchase the service or products (Zeithaml, Bitner, & Gremler, 2013). Behavioral intentions may be positive or negative, which means that customer may avoid or approach the service or product. If customers are satisfied, thus it is more likely that they will have an approach behavioral intention. The relationship of the customer satisfaction and behavioral intentions in the hospitality industry has been said to be positive (Clemes, Gan, & Ren, 2010). Customer satisfaction is a key in building customer loyalty (Wirtz, Chew, & Lovelock, 2012). Behavioral intentions may be positive or negative, positive behavioral intentions are related to customer loyalty (Zeithaml, Bitner, & Gremler, 2013).

Lin and Liang (2011) supports that customer satisfaction have a positive relationship with behavioral intentions. This positive relationship between customer satisfaction and behavioral intentions has also been supported through another study (Ladhari, 2009; Ryu, Lee, & Kim, 2012). Thus the following hypothesis is developed:

H6: Customer satisfaction is positively related to behavioral intentions.

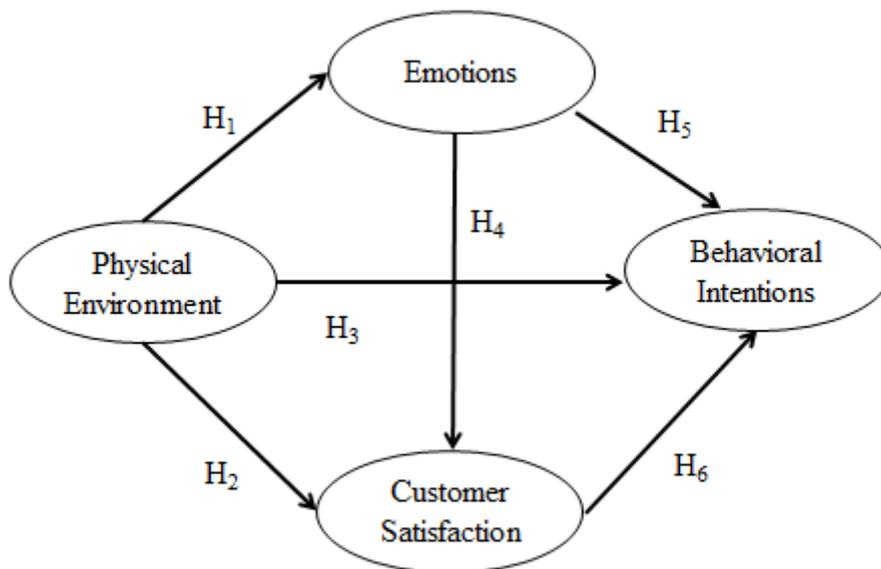


Figure 1. Proposed Model.
Source: Ali & Amin (2014)

Research Methodology

Research Instrument

The instrument that is used to obtain the data is questionnaire. Hence, the items for each construct are obtained by adaptation from Ali & Amin (2014) and scale developing. The item for the customer satisfaction construct is a result of scale development. A five point Likert scale were utilized in this study which ranges from strongly disagree (1) to strongly agree (5). This study is a hypothesis testing study.

Sample Design and Data Collection

The target population of this study is the whole active management students of the Faculty of Economics in UPH. In this study, the researcher will employ a non-probability sampling method that is convenience sampling, which is a sampling method that pertains to collecting information from members of the population who is readily available to bestow it. It is most often employed in the early stage of the exploratory patch of the research and is the foremost way of obtaining information quickly (Sekaran & Bougie, 2013).

This study utilizes Yamane simplified formula to calculate sample sizes (Israel, 2013). A confidence level of 95 percent and $p = 0.5$ is used, thus the formula for the equation is:

$$n = \frac{N}{1+N(e)^2}$$

According to an interview with the administration staffs of UPH, the number of the population is 1509 and the sample size of this study is 317 respondents. This sample size is taken with five percent margin of error.

The researcher has distributed 320 questionnaires to the respondents through self-administered and convenience sampling method. This method of distributing

questionnaires is used to help clarify any issues the respondents have with the questions in the questionnaire. The following table will explain the respondent's profile.

Then, from these 320 respondents, 45% are males and 55% are females. 13.43% of the respondents have visited XYZ Coffee once, 44.06% respondents have visited XYZ Coffee twice, and 42.50% respondents have visited XYZ Coffee more than twice. 18.13% of the respondents go there to eat or drink, 26.56% go there to eat and drink while waiting for class, and 33.13% go there to eat or drink while doing assignments.

Analytical Methods

SPSS statistics and Smart-PLS were utilized to analyze the data collected. CFA and composite reliability (CR) were used to test the validity and reliability of the data in this study. A PLS-SEM were employed to test assess the overall model and hypothesis testing. Partial least square is defined as the "alternative estimation approach to traditional SEM. The constructs are represented as composites based on factor analysis results, with no attempt to re-create covariance's among measured items" (Hair et al, 2006, p. 711). One of the advantages of using a partial least square SEM is when there is a problem that prevents a solution to be provided; it will still yield a solution (Hair et al, 2006). This study will exercise a partial least square structural equation modeling.

Results

Measurement Model

The confirmatory factor analysis (CFA) of the 13 items in the study showed an excellent fit to the data. As shown in table 1, the composite reliability (CR) values are all above 0.7, which is recommended by Ghozali & Latan (2015), the value of the composite reliability should be greater than 0.7 for a confirmatory research. According to Chin, a loading factor of 0.5 to 0.6 is still sufficient and acceptable (Ghozali & Latan, 2015). All of the loading factors of the items in this study are all greater than 0.5, thus the indicators have the appropriate factors. The average variance extracted value were all greater than 0.5, hence, it is valid if the value is greater than 0.5 for both a confirmatory and exploratory research (Ghozali & Latan, 2015).

Table 1 Validity and reliability for constructs

		Loading Factor	AVE	CR
<i>Physical Environment (PE)</i>				
PE1	The architecture in XYZ Coffee looks comfortable	0.822	0.509	0.837
PE2	The colors within XYZ Coffee is coordinated	0.871		
PE3	The colors within XYZ Coffee is complementary	0.862		
<i>Customer Emotions (CE)</i>				
CE1	After visiting XYZ Coffee, I feel exuberant	0.686	0.627	0.766
CE2	After visiting XYZ Coffee, I feel enthusiastic	0.828		
CE3	After visiting XYZ Coffee, I feel excited	0.730		
<i>Customer Satisfaction (CS)</i>				
CS1	I feel that my experience with XYZ Coffee has been beneficial	0.656	0.563	0.793
CS2	I feel that my experience with XYZ Coffee is valuable	0.908		
<i>Behavioral Intentions (BI)</i>				
BI1	I intend to continue visiting XYZ Coffee	0.726	0.726	0.888
BI2	I intend to be a loyal customer of XYZ Coffee	0.806		
BI3	I will consider XYZ Coffee as my first choice	0.735		
BI4	I will recommend XYZ Coffee to my friends and others	0.687		
BI5	I would like to ask my friends and family to gather and meet up in XYZ Coffee	0.596		

Table 2 depicts the discriminant validity for the construct. The discriminant validity of this study met the requirement. The reason why it is valid is because all of the square root of the construct's AVE is higher than the value of correlation between constructs (Ghozali & Latan, 2015).

Table 2 Discriminant Validity

	BI	CS	CE	PE
BI	0.713			
CS	0.275	0.792		
CE	0.304	0.214	0.750	
PE	0.432	0.255	0.292	0.852

Structural Model

According to Black (2013) the appropriate minimum t-value for a one tailed test with a significance level of 5% should at least be 1.645 that can be rounded up to 1.65. The hypothesized relationship between the physical environment and emotions (H1) was supported with a t-value of 4.986, which indicates that the physical environment affects the emotions of the customers.

Hypothesized relationship between the physical environment and customer satisfaction (H2) was supported with a t-value of 3.247; hence, to increase customer satisfaction, the physical environment needs to be enhanced. The t-value of the relationship between the physical environment and behavioral intentions (H3) was supported with a t-value of 5.810, it is evident that a more positive physical environment can lead to a more positive behavioral intentions.

The hypothesized relationship between emotions and customer satisfaction (H4) and emotions and behavioral intentions (H5) were 2.041 and 2.937, which indicates that emotions have influence on customer satisfaction and behavioral intentions. The last hypothesis (H6), the relationship between customer satisfaction and behavioral intention was supported with a t value of 2.394, which suggest that customer satisfaction will produce a more favorable behavioral intention. The results are summarized in table 3.

Table 3 Results of the structural model

<i>Hypothesis</i>	<i>Path</i>	<i>Path Coefficient</i>	<i>t-value</i>	<i>Result</i>
H1	PE → CE	0.292	4.986	Supported
H2	PE → CS	0.211	3.247	Supported
H3	PE → BI	0.344	5.810	Supported
H4	CE → CS	0.153	2.041	Supported
H5	CE → BI	0.171	2.937	Supported
H6	CS → BI	0.151	2.394	Supported

Discussion and Conclusions

All of the six hypotheses found in this study were supported. These results were consistent with results of previous studies by Ali and Amin (2014). The results conveyed that all of the variables had appropriate reliability. Each of the independent variables was proven that they have a significant positive influence on the dependent variables. The physical environment, customer emotions, and customer satisfaction have positive influence on the behavioral intentions. These findings are consistent and supported by the previous study, which proved that the physical environment generates consumer emotions (Pareigis, Edvardsson, & Enquist, 2011; Lin & Liang, 2011). These findings are also in line with Jang, Liu, & NamKung (2011), which found that the physical environment heavily influences customer's positive emotions, which are mediators between the physical environment and behavioral intentions.

The relationship between emotions and customer satisfaction were supported by a study, which indicates that any evolvement in consumer emotions influences customer satisfaction (Lin & Liang, 2011). Lin & Liang (2011) also found that consumer emotions are positively related to customer satisfaction and behavioral

intentions. These findings are consistent and supported by the previous study that customer satisfaction has a positive relationship with behavioral intention (Ladhari, 2009; Lin & Liang, 2011; Ryu, Lee, & Kim, 2012). Hence, in order to produce a favorable behavioral intention, an enhancement of the physical environment, customer emotions, and customer satisfaction is required.

Managerial Implications

The result of this research shows that the entire hypothesis in this study is supported. There are positive relationship between the physical environment towards customer emotions, physical environment towards customer satisfaction, and physical environment towards behavioral intentions. Consumer emotions are positively related towards customer satisfaction and behavioral intentions. Customer satisfaction is positively related towards behavioral intentions.

This study will be useful for XYZ Coffee to better understand how their services are in the eyes of their customers. The physical environment is positively related to the emotion of the customers, customer satisfaction, and behavioral intentions. Now XYZ Coffee already has a good physical environment which are color coordinated and which makes the customers feel comfortable. However, as time pass the physical environment of XYZ Coffee need to be renewed accordingly in order to sustain the position of XYZ Coffee as a service provider that have a comfortable and coordinated physical environment. Since XYZ Coffee is located near the campus, thus most of its customers will be students from UPH. Many students are looking for a comfortable place to wait for classes as well as to do assignments. Most of the respondents go to XYZ Coffee to eat and drink while discussing and working on assignments. Thus with XYZ Coffee's comfortable physical environment, they would be able to capture more customers.

Overall, XYZ Coffee has a good customer emotion response, most of the customers feel refreshed, some of them feel enthusiastic as well as excited after visiting XYZ Coffee. The feeling of enthusiasm and excitement might be influenced by other factors that might affect the customers other than the service provider itself. When a customer is having a personal problem, it might affect their emotions. Thus the most important emotion that XYZ Coffee should enhance is refreshment. They should try their best to make customers feel refreshed after visiting their store. As an example, the employees of XYZ Coffee could be brighter and friendly while interacting with the customers, so that the customer's emotions can be enhanced in a positive way.

The customers of XYZ Coffee are somehow not quite sure yet on the satisfaction level. In this study it is exposed that most of the respondents or customers mostly have neutral responses towards the satisfaction questions. Perhaps because XYZ Coffee is still quite new in the business, customers are not quite ready yet to judge and evaluate their satisfaction upon the service provider. In order to increase the customer satisfaction, XYZ Coffee could further boost its physical environment and customer emotions because they are positively related to customer satisfaction.

All in all, the behavioral intention from the customers of XYZ Coffee is quite promising. Many customers are willing to become a loyal customer of XYZ Coffee and even more are planning to revisit XYZ Coffee in the future. Thus it means that XYZ Coffee have a potential in being a leader in the market in Karawaci. Perhaps

with more work in boosting its physical environment, customer emotions, and customer satisfactions, XYZ Coffee might be in the top two coffee shops in Karawaci.

Research Limitations and Suggestions for Future Research

There are several limitations and suggestions for future research found through this study, the limitations and suggestions are as follows:

1. This research only focuses on one outlet of XYZ Coffee, which is located in Benton Lippo Karawaci. For future research it is recommended to focus on various outlets of XYZ Coffee.
2. This study utilize PLS SEM statistical tool, however, PLS cannot be exercised to test the model. For future research, it is encouraged to use a CB-SEM which can test the appropriateness of the model.
3. This study used a convenience sampling method which has a limitation of generalization; hence, the interpretation from sample to population is not accurate. For future research it is suggested to use random sampling.
4. The scope of the respondent in this study is only the management students of the Faculty of Economics in UPH. For future research, it is recommended to have respondents from various major in UPH, in order to show variability in the sample.

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NON-LINEAR EFFECTS OF MANAGERIAL RISK-TAKING ON FIRM PERFORMANCE IN INDONESIA

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Abstract

This research aimed to find a non-linear relationship between managerial risk-taking and firm performance using 174 Indonesian listed firms in the Indonesian Stock Exchange (IDX) over a period of ten years (2003–2012). Results show that a non-linear relationship between managerial risk-taking and one of firm performance, namely ROA. Meanwhile, the impact of managerial risk-taking on performance is on positive way to ROE.

Key Word: managerial risk taking, firm performance. Non-linear relationship

1. Introduction

Risk has long been an essential issue in finance. Sparked by Bowman (1980, 1982, 1984), many studies of strategic choice have included risk measures. The meaning and measurement of risk is used to describe a characteristic of organization experiencing volatile income streams (Palmer and Wiseman, 1999). However, in other cases, risk related with managerial choices associated with uncertain outcomes (managerial risk-taking). Given these disparate meaning of risk, it is not surprising that several independent streams of risk research have emerged.

Even if a full understanding of risk remain elusive, this paper want to emphasis on the managerial risk-taking. The manager takes the extent of risk in the strategic decision-making may generate uncertain results or performances. In this case it should be noted that the relationship between risk and performance, because risk and performance have simultaneous relationships (Miller and Bromiley, 1990).

Studies of the influence of risk on performance have yielded conflicting results (Miller and Bromiley, 1990). Conventional economic wisdom (Brealey and Myers, 1981) suggests that risk and return are positively correlated. Likewise, existing research studies up to 1980 have largely supported a positive risk-return association (Fiegenbaum and Thomas, 1988). However, Bowman (1980) discovered that within most industries, risk and return were negatively correlated. He described that research outcome as a paradox for strategic management, since the findings ran counter to the conventional wisdom. Nevertheless, their contradictory results might be explained by the use of different risk measures in the cited studies (Miller and Bromiley, 1990). Moreover, Rauch et al. (2008) has examined the relationship between risk-taking as a

dimension of entrepreneurial orientation (EO) and performance. The EO can be viewed as the entrepreneurial strategy-making processes that key decision makers use to enact their firm's organizational purpose, sustain its vision, and create competitive advantages (Rauch et al., 2008).

In addition, Belanes and Hachana (2009) specifically assesses managerial risk-taking and their performance in the Tunisian context. They find that the Tunisian firms tend to be more conservative and risk-averse, which might lead to performance decline. Their analysis also highlights a non-linear relationship between managerial risk-taking and performance.

Based on those several findings, it is essential to document and evaluate the relationship between managerial risk-taking and firm performance. Additionally, managerial ownership is one of the factors that would contribute to the effect of managerial risk-taking on performance (Galbraith and Merrill, 1991). Indonesian firms have a variety of managerial ownership. The institutional characteristics, including the preponderance of family holdings, the State holdings, and inter-firm cross-holdings, distinguish the managerial ownership landscape in Indonesia (Winoto and Graitto, 2008). Besides, Winoto and Graitto (2008) find that family business dominates the business in Indonesia and spreads in various fields of industry and organization.

Family businesses worldwide are facing the problem of succession (Belanes and Hachana, 2009), inclusive in Indonesia. They cannot avoid the issue of succession, which generates a succession planning in family business needs. Consequently, it makes hostile takeovers and leveraged buyouts unlikely to occur. Then the family firm's management always want to appease the dominant shareholders (Belanes and Hachana, 2009). Given by this circumstance, it is noticeable that equity stakes of managers holding in their firm are more likely to engage in risk-taking than that of non-owner manager (Palmer and Wiseman, 1999).

Then we want to investigate the factors that influence managerial risk-taking itself, such as investment on innovation (Naldi et al. 2007; Zahra 2005), managerial ownership (Galbraith and Merrill, 1991), and some of the financial ratio (Ben-Zion and Shalit, 1975). Then we want to investigate inter-relationship between managerial risk-taking and firm's performance.

The rest of paper is organized as follows. In section 2, we discuss determinants of managerial risk-takings and develop hypothesis of simultaneous relationship between managerial risk-taking and firm performance. In section 3 and 4 we describe the data and endogeneity problems in econometric modeling. Then in section 5 we discuss the empirical relation managerial risk-taking and firm performance. Then we discuss further the empirical evidence focusing on the non-linear relationship of managerial risk-taking in firm performance.

2. Hypothesis Development and Related Literatures

2.1 Risk Taking Behavior of the Firm

Palmer and Wiseman (1999) mention that managerial risk-taking and the firm's level of risk –organizational risk– are two discrete separate entities. On the other hand, Gilley (2002) regards the management team defines managerial risk-taking as behavior to be engaged in with uncertain, but significant outcomes. Then managerial risk-taking can be defined as management's proactive strategic choices, which are involving the allocation of resources (Palmer and Wiseman, 1999). In a simple word, risk-taking is the distribution of possible outcomes from a choice (Wright et al., 2007). As managers approach risk-taking activities, it is assumed they recognize both the upside and the downside potential of outcome variance.

Cyert and March (1992) argue a choice behavior of the firm, particularly in the term of risk, is influenced by the performance benchmark indicator that the firm used. When performance exceeds the benchmark, the management of the firm tends to have less interest in risk or risk-averse. On the other hand, if a firm is facing losses, the management team will involve in a greater risk (risk-takers) as to improve the performance (Bowman, 1980; Wiseman and Catanach, 1997). The prospect theory (Kahneman and Tversky, 1979) shows also that a firm that anticipates negative changes in wealth will act in a risk-seeking behavior, but when it anticipates positive changes in wealth, it exhibits risk-averse behavior.

Belanes and Hachana (2009) proposed that perhaps due to the personal responsibility or ego, decision-makers seem to interpret negative feedback as a signal that they should commit additional resources in order to save a project to which they were initially committed. Certo et al. (2008) sees managerial risk-taking as a decision making bias as managers irrationally seek risk because they may prefer a product development project with a high probability of large loss over a development project with certain, but much smaller, loss. Furthermore, individuals will take irrational risks when the potential payoff is extraordinarily large.

Several financial approaches have been used to evaluate managerial risk-taking, such as the fluctuations of Return on Asset (ROA) and Return on Equity (ROE) (Kose et al., 2008), stock returns risk (Aaker and Jacobson, 1987), and debt-to-equity ratios (Miller and Bromiley, 1990; Wiseman and Catanach, 1997). Wiseman and Catanach (1997) argue that the use of leverage might increase managerial risk-taking since the cost of debt is fixed and therefore does not reflect the risk of its use. Consequently, leverage may generate "risk-loving" options as the residuals from those choices are not shared with the source of capital.

However, the solely use of the financial approaches to measure the managerial risk-taking lead to the inconsistency and the controversy of findings (Belanes and Hachana, 2009). This might be happened due to three main circumstances. First, managerial risk-taking is a multi-dimensional construct that cannot be resumed in one feature (Miller and Bromiley, 1990). Second, behaviour is too complex to be measured by only a financial model or measurement (March and Shapira, 1987). The

management's propensity to take risks should not be ignored or neglected. Third, the relationship between entrepreneurship and risk-taking is context specific (Naldi et al., 2007; Wiseman and Catanach, 1997; Zahra, 2005). Due to the fact that each firm has its own organizational and governance structures, managerial risk-taking would indeed be higher or lower in certain organizational contexts than in others.

Then, Zahra (2005) and Naldi et al., (2007) mention managerial risk-taking can be exposed through the groundbreaking new ventures, the firm innovation and the research and development (R&D) expenditures. Palmer and Wiseman (1999) argue that R&D investment are highly uncertain because their outcomes are distant and frequently do not produce the intended payoffs. Since there in only 27% of R&D projects achieve financial success (Scherer and Ross, 1990), these investments are associated with large cash flow variances relative to any other expenditures (Galbraith and Merrill, 1991). Kothari et al., (2002) also said that R&D expenditures are typically viewed as high risk investments compared to capital expenditures on property, plant, and equipment.

2.2 Risk Taking and Firm Performance

Gilley et al. (2002) argue that top management teams (TMT) that take risk (especially with regard to process and product enhancements) achieve superior levels of financial and nonfinancial performance. They say that TMT risk-taking had a more positive effect on firm performance in less dynamic environments. They think that if the rate of change is extremely high, risk-taking may lead to ill-advised investments of resources into products or markets that do not prove viable. Thus, in more dynamic environments, the relationship between the risky behavior and the eventual outcome is more likely to be obscured. Conversely, in more stable environments, organizations may have more to gain through riskier behavior.

Kose et al., (2008) and Zahra (2005) emphasize the positive impact of risk-taking on performance. They argue the positive influence of risk-taking on performance even though the extent of environments. It is also argued that risky projects are associated with efforts to innovate and innovations are associated with growth, particularly productivity growth (Belanes and Hachana 2009). Rauch et al., (2008) find that businesses adopting a strong entrepreneurial orientation perform much better than firms which do not adopt an entrepreneurial orientation. Zahra (2005) and Kose et al., (2008) also find that positive association between risk-taking and performance. Lumpkin and Dess (2001) also still find positive correlations between risk-taking and firm performance, even if low.

However, Miller and Bromiley (1990) argue that the influence of strategic risk (debt-to-equity ratio, capital intensity, R&D intensity) on performance might generate distinct results across different industries. Covin et al., (1994) find that a non-significant relationship between risk-taking and performance. Naldi et al., (2007) find that risk-taking reduces performance or negative relationship between risk-taking and firm performance.

Regarding these contradicting results Wiseman and Catanach (1997) argue that the use of different risk measures may explain some of their contradictory results. Each risk measures may not capture all the dimensions of risk-taking which are a multi-dimension construct. Also, managerial risk-taking is too complex to be appreciated solely by financial measurements. Furthermore, the relations among risk measures and between risk and performance may vary over time and context (Miller and Bromiley, 1990). Belanes and Hachana (2009) assess managerial risk-taking and their performance in the Tunisian context. They find that the Tunisian firms tend to be more conservative and risk-averse, which might lead to performance decline. They suggest also a non-linear relationship between managerial risk-taking and performance to capture complexity of risk-taking and firm performance. Based on that we propose the following hypotheses.

Hypothesis 1: Managerial risk-taking has a positive and non-linear influence to firm performance.

3. Data and Empirical Model

3.1 Data

We use 10 years firm data from 2003 to 2012 from Indonesian stock exchange (IDX). The financial data collected from the annual reports of each of the firms. We got stock price from Yahoo Finance. However, we exclude all Indonesian financial institutions including banks, insurance companies, mutual fund, holding and equity companies are excluded to avoid bias results as they have discrete types of risk and different way of treating those risks. We exclude also firms that have missing data from the year 2003 to 2012. Then total 1740 annual firm observations are used.

3.2. Empirical Model

To assess whether the relationship risk taking and firm performance, we apply Arellano and Bover (1995), Blundell and Bond (2000) dynamic panel model using general methods of moment (GMM). Because this model can provide better estimator than Arellano and Bond (1991) if the autoregressive parameters are too large or the ratio of the variance of the panel-level effect to the variance of idiosyncratic error is too large. We modified the empirical model developed by Belanes and Hachana (2009) as follow;

$$\text{PERF}_{it} = \gamma_{0i} + \gamma_1 \text{COMP1}_{it} + \gamma_2 \text{COMP1}_{it}^2 + \gamma_3 \text{COMP2}_{it} + \gamma_4 \text{COMP2}_{it}^2 + \gamma_5 \text{COMP3}_{it} + \gamma_6 \text{COMP3}_{it}^2 + \gamma_7 \text{INPERF}_{it} + \gamma_8 \text{SIZE}_{it} + \gamma_8 \text{LPERF}_{it} + \epsilon_{it}$$

where,

- PERF : the firm performance, ROE and ROA
 Comp1 : the 1st construct of managerial risk-taking
 Comp2 : the 2nd construct of managerial risk-taking
 Comp3 : the 3rd construct of managerial risk-taking
 INPERF : the firm performance per sub industry
 SIZE : the firm size using log(total assets)
 LPERF : the lag of the performance, ROE_{i,t-1} and ROA_{i,t-1}.
 ε : the error term.

3.3. Measure of Risk Taking Components

Preceding literatures used multiple measures to reflect the multidimensionality of managerial risk-taking construct (Gilley et al., 2002; Miller and Bromiley, 1990; Zahra, 2005). Then we define risk factors using principal component analysis. As basic factors we cover not only be financial measures, but also strategic dimensions. This is conducted with the purpose of providing a worthwhile measurement of managerial risk-taking within the Indonesian listed firms.

The three financial variables which have been selected are: the firm annual mean of daily volatility of stock returns (VOLT) and two debt-to-equity ratios, which are total debt divided by book value of equity (D_BVE) and total debt divided by market value of equity (D_MVE). In order to have an exhaustive construct, three strategic components are also added: the research and development expenditures divided by total asset (R&D_ASS), the market-to-book-value of total asset (MTBV) and the annual rate of growth of total assets (GRASS). Because we cannot find R&D data from Indonesian public firm we use capital expenditure for R&D proxy (Kothari et al., 2002). Using these 6 risk variables, we calculate the risk main common risk components using PCA (principal components analysis).

4. Empirical Results

4.1. Descriptive Statistics

Table 1 shows the general characteristics of listed firms in the Indonesian Stock Exchange. The dispersion indicator VOLT is on average 6.33 per cent in a month, with the maximum of 24.18 per cent and minimum 0.000. We get the zero volatility just because of several stocks not trading for long term. The result indicates that volatility of stock price in Indonesia is various. Besides one striking result is the relative small R&D expenditure estimated with Capex, which is around 0.24 of total assets. R&D variable shows Indonesia firm tends to risk-taking.

Table 1. Descriptive Statics of Variables

Variable	Minimum	Maximum	Mean	Std. Dev.	Skewness	Kurtosis
VOLT	0.0000	0.2418	0.0633	0.0509	1.5097	4.8247
MTBV	0.2618	9.1820	1.5178	1.3338	3.3533	16.7058
GRASS	-0.4694	2.0653	0.1298	0.3217	3.2656	18.8785
R&D_ASS	0.0000	2.3175	0.2489	0.4124	2.7115	11.7536
D_BVE	-6.2256	16.0270	0.8437	2.3257	3.8844	26.8949
D_MVE	0.0000	22.9505	1.4767	3.3170	4.5128	25.9960
ROE	-2.0626	1.9847	0.1183	0.4148	-0.7363	16.5482
ROE/SubInd	-1.6897	2.5681	0.1183	0.4470	1.6166	18.1145
ROA	-0.5521	0.3972	0.0418	0.1229	-1.1698	9.7762
ROA/SubInd	-0.5227	0.5366	0.0418	0.1134	-.04375	13.0849
Size	16.8584	24.7346	20.5036	1.6764	0.2385	2.6502

VOLT is the average of daily standard deviation of stock returns; MTBV is the market value of total asset divided by book value of total asset; GRASS is the changes of total asset divided by preceding year of total asset; R&D_ASS is the R&D expenditures divided by total asset; D_BVE is the total debt divided by book value of equity; D_MVE is the total debt divided by market value of equity; ROE is the net income divided by total equity; ROE/SubInd is the average Return on Equity per sub industry; ROA is the net income divided by total asset; ROA/SubInd is the average Return on Asset per sub industry; Size is the ln (book value of total asset).

Besides, the rate of MTBV (market-to-book-value of total assets) and the GRASS (annual rate of growth of total assets) is on average respectively 1.51 and 0.12. Moreover, Table 4.1 shows also leverage ratio. The minimum of total debt per book value of equity has a negative sign, means that some companies' book value of equity is in negative sign. It is mainly happened within the textile industry. On the other hand, total debt per market value of equity generates a very big maximum value, 22.95 times. This is actually only happened to certain companies, which are JKSW, MLIA, NIPS, and ERTX.

In addition, Table 1 provides the descriptive statistics relative to the firm performance variables, ROE and ROA. The minimum of both ROE and ROA are negative as a lot of companies faced hard times during 2008 and 2009, when the global economic crisis struck all around the world.

4.2 Risk Components from PCA

Before we start PCA analysis, we analyze correlation among the risk-taking variables. Table 2 shows that the correlation between the variable is quite low and even some of them generate a negative correlation. It is true that the higher correlation between

each variable, the more suitable PCA to be applied. Meanwhile, the highly correlated data set also doesn't guarantee that the PCA is applicable to use.

Table 2. Correlation Matrix among Risk-taking Variables

Variable	VOLT	MTBV	GRASS	R&D_ASS	D_BVE	D_MVE
VOLT	1.0000					
MTBV	-0.1757	1.0000				
GRASS	-0.0133	0.0323	1.0000			
R&D_ASS	0.0291	0.0792	0.2261	1.0000		
D_BVE	0.0747	-0.1194	0.0301	-0.0046	1.0000	
D_MVE	0.1864	-0.0869	-0.0842	0.0404	0.1137	1.0000

VOLT is the average of daily standard deviation of stock returns; MTBV is the market value of total asset divided by book value of total asset; GRASS is the changes of total asset divided by preceding year of total asset; R&D_ASS is the R&D expenditures divided by total asset; D_BVE is the total debt divided by book value of equity; D_MVE is the total debt divided by market value of equity

Table 3. Risk Components of Indonesian Firm

Component	Eigenvalue	Proportion	Cumulative
Component 1	1.25426	0.2090	0.2090
Component 2	1.12599	0.1877	0.3967
Component 3	0.99566	0.1659	0.5627
Component 4	0.98762	0.1646	0.7273
Component 5	0.88610	0.1477	0.8749
Component 6	0.75035	0.1251	1.0000

Ideally, any factors with eigenvalues greater than 1.0 should be retained. However, we decide to retain 3 components. Even if the third component eigenvalue is 0.99566, which is only slightly below 1. Moreover, with 3 components, namely Comp 1, Comp 2, and Comp3, they could represent the cumulative of 56.27% of all the total data set. That number is enough to be used as it is greater than 50%.

We continue VARIMAX rotation in order to simplify the factor structure and here is the result of the factor loadings. The eigenvectors after rotation is shown in Table 4.

Table 4. Relation among Components in PCA and Risk-taking Variables

Variable	Comp1	Comp2	Comp3	Unexplained
VOLT	0.6789			0.4166
MTBV		0.5587		0.6077
GRASS		0.6634		0.5256
R&D_ASS	0.6576			0.4252
D_BVE			0.8952	0.1926
D_MVE			0.3254	0.6153

To meet the minimal level for interpretation of structure, the minimum score of factor loadings should be ± 0.3 , we remove the factor loadings score below ± 0.3 . The variable D_MVE is also omitted from Comp1 as it has negative signs. To conclude, this paper now has three components as the construct of the managerial risk-taking.

COMP1 : the average of VOLT and R&D_ASS

COMP2 : the average of MTBV and GRASS

COMP3 : the average of D_BVE and D_MVE

By looking at the component's construction, COMP1 is related default risk, COMP2 is related growth-opportunity risk, and COMP3 is related total leverage risk.

Before moving to the next step, the researcher has to test Kaiser-Meyer-Olin (KMO) as the Measure of Sampling Adequacy and the result is presented in the Table 5

Table 5. Kaiser-Meyer-Olkin Measure of Sampling Adequacy Variable KMO

Variable	KMO
VOLT	0.5000
MTBV	0.5236
GRASS	0.5070
R&D_ASS	0.4966
D_BVE	0.5339
D_MVE	0.5007
Overall	0.5001

According to the rule of thumb, each of the variables and the overall KMO should be greater than 0.5. It is noticeable there that R&D_ASS does not follow the rule, yet the researcher still keeps that variable as it is just slightly below the significance level, 0.5. But more importantly, it is due to the fact that R&D expenditure is an important factor

in assessing managerial risk-taking as mentioned by Naldi (2007), Zahra (2005), and Palmer and Wiseman (1999)

4.3. Non-linear Relationship between Risk-taking and Performance

Table 6 recapitulates the regression results about the impact of managerial risk-taking on the firm performance within the Indonesian context. Out of the three components of risk taking factors, only component 2 and the square of component 2 that has significant value. Regarding those results and supported with the different sign of coefficients in the COMP2 and COMP2 square, it points out that managerial risk-taking and ROA has a non-linear relationship.

As explained above, the relationship between the managerial risk-taking and firm performance measured with ROA generates a maximum turning point. It is worth bearing in mind in this regard that ROA appreciates the economic performance achieved by all stakeholders. Relying on agency perspective, stakeholders are more risk-averse so as to protect their interests within the firm, what confirms the concave managerial risk-taking–ROA association. Stockholders can reduce the down-side potential of risk-taking thanks to their portfolio diversification while stakeholders cannot avoid the burden of failed investments (Fama, 1980).

Referring back to previous explanation, the variable of COMP2 is the average of MTBV (market-to-book-value of total asset) and GRASS (annual growth rate of total asset), which is all about growth-opportunity of a company, since it is the only component that gives significantly influence to the firm performance. This result confirm the Belanes and Hachana (2009) with Tunisian firms.

This result confirms that there is an optimum score for managerial risk-taking beyond which managers do not tolerate further risks as the firm performance begins to go down (Belanes and Hachana, 2009). In fact, over such a breakpoint, additional hedging costs become higher than potential incomes.

Moreover, Table 6 also summarizes the estimation results carried on with ROE. Almost all of the managerial risk-taking components generate insignificant value to ROE. However, by looking carefully through the table, only COMP3 has a significant p value ($p = 0.014$) and a positive impact (coefficient of 0.07473) on ROE. Looking back to the result of Principal Component Analysis result, COMP3 is the average of D_BVE (total debt per book value of equity) and D_MVE (total debt per market value of equity). In short, COMP3 is all about the leverage risk.

The positive result of managerial risk-taking on ROE confirms the conventional economic wisdom by Brealey and Myers (1981) who suggest that risk and return are positively correlated. Moreover, the result is also in line with findings by Abor (2005). The significantly positive coefficient for total debt implies that an increase in the debt position is associated with an increase in profitability.

Performance of sub-industry does have significant value ($p = 0.001$ for ROE and $p = 0.044$ for ROA) and also positive impact (coefficient with ROE = 0.58661 and

coefficient with ROA = 0.10161) to firm performance. This finding is in line with the finding from Miller and Bromiley

Table 6. Managerial Risk Taking and Performance¹

Variable	Variable description	ROE		ROA	
		Coefficient	P> z	Coefficient	P> z
COMP1	Component 1 of managerial risk-taking	-1.10971	0.113	-0.02785	0.949
COMP1sq	Square of component 1 of managerial risk-taking	2.05519	0.180	0.07699	0.897
COMP2	Component 2 of managerial risk-taking	0.00374	0.902	-1.81357*	0.000
COMP2sq	Square of component 2 of managerial risk-taking	-0.00004	0.625	0.00789*	0.000
COMP3	Component 3 of managerial risk-taking	0.07473**	0.014	0.00273	0.398
COMP3sq	Square of component 3 of managerial risk-taking	-0.00005*	0.056	0.00010	0.198
PERF/SubInd.	ROE/SubInd and ROA/SubInd	0.58661***	0.001	0.10161**	0.044
SIZE	Ln of book value total asset	-0.64517**	0.010	-0.12126**	0.017
L.PERF	Lag of ROE and lag of ROA	-0.58061***	0.000	-0.16590	0.612
Intercept		13.50393*	0.094	-0.92038	0.924

Note: ***significance level at 1%; **significance level at 5%; *significance level at 10%. COMP1 is about default risk, COMP2 is about growth-opportunity risk, and COMP3 is about total leverage risk.

(1990) that the managerial risk-taking effect may vary across industries, as different characteristics of each industry may affect the level of managerial risk-taking needed. As regards the impact of the firm size on the relationship between managerial risk-taking and corporate performance, it is quite noticeable that both of the size of the firm do have significant value ($p = 0.010$ for ROE and $p = 0.017$ for ROA), but

¹ We find the main model have autocorrelation problem, then we apply Arellano and Bover (1995), Blundell and Bond (2000) than Arellano and Bond (1991). We already check the multi-collinearity and over-identification problem in the modeling but there is no problem in diagnostic tests.

negative impact (coefficient with ROE = -0.64517 and coefficient with ROA = -0.12126) to the firm performance.

5. Conclusions

This particular research aimed to assess the measurement of managerial risk-taking and to stress its impact on firm performance, namely ROE and ROA, within the Indonesian listed companies.

Results highlight a non-linear relationship between managerial risk-taking and one of firm performance, namely ROA. Meanwhile, the impact of managerial risk-taking on performance with ROE is on positive way. It is worth noting that ROA evaluates the economic performance relative to all stakeholders, while ROE deals with the financial performance in which stockholders are mainly interested. These two measures do not offer the same relationship because of the disagreement of these two perspectives.

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Appendix

Summary of All Variables and Measures

Variables	Definition
Dependent variable	
ROE	Net income divided by total equity
ROA	Net income divided by total asset
Independent variable	
VOLT	Average of daily standard deviation of stock returns
MTBV	Market value of total asset divided by book value of total asset
GRASS	Changes of total asset divided by preceding year of total asset
R&D_ASS	R&D expenditures divided by total asset
D_BVE	Total debt divided by book value of equity
D_MVE	Total debt divided by market value of equity
Control variable	
ROE/SubInd	Average Return on Equity per sub industry
ROA/SubInd	Average Return on Asset per sub industry
L.ROE	One-year-lag of Return on Equity
L.ROA	One-year-lag of Return on Asset
Size	Ln (book value of total asset)

**THE RESEARCH ON THE APPLICATION
OF CHINESE ELECTRIC BUSINESS
MODEL IN THAILAND COMMERCE - ALIBABA AS A CASE STUDY**

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Abstract

In recent years, the rapid development of the Internet, and gradually infiltrated into the production and life of people. Electronic commerce has gradually grown into a kind of consumption mode and the traditional sales model par. The core of electronic commerce is to provide an independent trading platform for the two parties, which will not be directly involved in the transaction. This kind of business model based on the development of intelligent communication equipment, convenient and fast transaction and so on, has become the most development potential model in the global financial trade model. According to information from the Ministry of Commerce, China has become the world's largest online retail market, 2013 the network shopping user scale reached 302 million people, the annual online retail transactions more than 1.85 trillion yuan, equivalent to 7.8% of total retail sales of social consumer goods. Just 3 years, the scale of China's electricity suppliers have surpassed the United states. 1999 birth of the Alibaba group is China has achieved great success business model on behalf of, after deliberation, construction, expansion and standard of four stages, Alibaba won the recognition of the industry as a whole and continuous innovation, Alibaba business accounted for 80% of market share in China, leader of China's e-commerce. In the tide of global e-commerce booming, countries are actively developing their own business, and Alibaba has made great success in other countries, the development of the electricity supplier will also play a learning and reference significance. How to learn from the successful business model of Thailand's electricity suppliers is the focus of this paper and difficult issues. This paper is divided into six chapters, the first chapter on the background and significance of the research purpose, ideas, research methods and innovations of this paper are described; the second chapter on the development pattern of the electricity supplier is reviewed; the third chapter use SWOT analysis to analyze Alibaba; fourth chapter. Analysis on the application of Alibaba business model in Thailand, from the analysis of the development of Thailand's electricity supplier, then the reference and application of Alibaba

is analyzed; the fifth chapter systematically expounded the business model for promoting the guiding role of Thailand business model development; the last chapter is the outlook for the business model in Alibaba and Thailand development prospects.

Key words: Chinese electricity provider pattern; Alibaba; Thailand electricity provider; reference

1.1 Background introduction of Alibaba

As the pioneer in the field of electric business, Alibaba occupies an extremely important position. Alibaba benefited so many middle and tiny companies with its platform. Established in Hangzhou in 1999, Alibaba, which combines B2B, C2C, search engine as well as home site together, is a famous electric business company in the world. It provide internet based service for the companies from over 200 countries with millions of commercial information is sharing every day and is the first commercial website in the world who own over one million of customers. Initially, the company was made with Alibaba, Taobao, Alipay, Alibaba software and Yahoo China and it only cared about information fluent at first. However, with the development of Alipay and Taobao Wangwang, Alibaba has become a electric business platform that could combine information fluent, fund fluent and communication together and focus on the internet economy model of the information fluent service of middle and tiny companies. As a platform of mutual information, it provides us a open atmosphere for communication not only for the connection of fund fluent, stuff fluent and consultation between different companies but also for the counterparts between companies and single person.

2.1 The analysis of the electric business model in Thailand

The development of electric business in Thailand is very stable in Thailand now. Although there are some problems, it has the tendency to develop well in the future from the overall look. So far, the main parts of electric business in Thailand consist B2C, B2B and B2G. Among them, B2G, which indicates the tread between companies and government, is a special electric business model in Thailand. For now, the development of electric business in Thailand could be put in these three parts with some special conditions. First of all, B2C has the major parts in Thailand which

occupies about 80% tread follows the B2B and B2G now if we separate it base on the economic activities. The most popular part is the projects that relate to hotels and trips follows costume, jewellery, etc. Follows electric devices follows service follows print, office tools, mechanics if we separate it base on the kinds of products. Based on the number of employees in different jobs, most of them are tiny electric business companies which contain no more than 5 people and occupies about 60%. Nevertheless, those middle companies, which contain 6-50 people occupy about 26% while big ones occupy only 5%. At last, based on online and offline to separate it, about 60% of them own virtual and real shops and only 37% just have virtual shops. Besides, there are 1% people have different ways to finish there tread apart from their internet based shops. The words above has given a conclusion to the electric business in Thailand in details.

3.1 Alibaba's model in Thailand as a conference

As a successful example in electric business is, Alibaba has a wide view, a big platform and many programs. Its major success is within B2C and C2C area. This treatise provides an idea for the development of C2C in Thailand base on the success of Alibaba in B2C and C2C field.

3.1.1 Based on government rules to determine own development model

We could say that the rules in Thailand are good for the development of electric business now. So the related companies should notice their advantages and determine their development model soon. Actually, that's why Alibaba could build its platform for B2C and C2C and make this platform as its core. The configuration of this platform, which includes an inner and a deep one, is one of the most crucial character of this platform. The cross-platform coordination made by Alibaba resulted in a effective annihilation of the barricade between B2B which has the advantage of outer tread and C2C which has the advantage of inner tread. This is very meaningful for the connection of service, operation and fluent without gaps so that we could build a brand new electric business model. For now, there is not such a huge comprehensive platform. However, the support from the government and the agitation of the related departments as well as rules is sufficient. Those related departments could make the coordination on different sources and let these companies plus customers share their materials and connect to the consumers directly. Companies could provide a better

service to customers and enlarge their market by designing their products depending on the needs of markets. At the same time, less cost will be needed through this way and this could benefit customers. At last, customers could be more confident on those platforms and a view of crystallizing structure of corporation will form.

3.1.2 Becoming a characterized benefits model

The beneficial model of Alibaba is very well and it seems to be having a good future especially when they are providing the service platform for customers and salesmen. Generally, the methods for Alibaba to get benefits including the following parts: First of all, the annual technological service payment and the real-time service fee. For Thailand electric business system, it is necessary to get the serendipity to find their own valuable points and build their own effective model to construct their electric business service platform and let it develop coherently. Their websites should learn from some foreign countries including China to let it contains their beneficial points at the beginning. Besides, the benefit model could be built depending on technological service payment, advertisement cost, software cost, service fee and the big data cost that will be mentioned later. Of course, the accurate direction and the value span of the platform should be made base on the actual situation. For instance, the original beneficial points come from technological service payment which could be received when lots of salesmen want us to provide them supports linking to ads. And then, money relates to software could be paid by salesmen and customers. There is no doubt that the benefits of big data will not appear until the later phase. Apart from all the things above, the beneficial points also include brands of the platform, the products associate with related electric business organizations, etc.

3.1.3 Enhance credit and build systems to guarantee credit

To fulfill a better development of electric business platform, both Alibaba and those from Thailand should focus on their system on credit evaluation. Electric platforms have the responsibility to build a better credit evaluation system to quantize and assess the behaviors of both sides so that we could maximize the track of credit log and build a fair, developed and open credit system for a formation of a atmosphere filling of credit and a reduction of public concerns of electric business system in order to get a healthy development for electric business systems. Thailand cares so much on

the development of electric business so an authorized third-party department could be found and help to guarantee the problems relate to credit to be solved. The efficient corporation with those famous departs should be made and the influence of the government should be used so that there will be no scam. These third-party could use the information form cellphones and the log of companies to build the whole data base to show the condition of credit and construct a index system of credit that could be set as rules associate with the load of credit notes by tracking these treads which result in a constant enlarging credit evaluation system. Besides, credit consequence could be set as inspiration for companies and every single person by giving them better support basing on their appearance on credit with the help of government to put their data into the system. Of course, the introduction of a third-parity is the inherent meaning of the accomplishment of electric business platform and this could be a good idea in dealing with the contradiction between both sides.

3.1.4 Focus on the construction of big data

Thailand companies should care on the concept of big data at the beginning and develop their own software and service for communication with the job on data collection, set and provision. This could not only prove a data support to themselves but also to the public. Big data indicates a huge data set of data from many different sources and collected with varieties of ways and they can always show the real-time situation. These data could come from chat web, electric business websites, the visit log and many other sources and they are not stable. The core of big data is doing analysis to an extraordinary huge data base. Comparing with other technologies, the characters of cheap, quick and improvement make it the best when consider about the overall cost. Thus, Thailand companies should care on real-time application and build every platform a big data system. And then, a completed big data base could be built basing on all these bid data systems and stimulate the brilliant development of electric business system.

4.1 The influence of Chinese electric business model on Thailand

It is important to maintain their position of serving middle and tiny companies effectively and continue exploiting C2C markets. Besides, the innovation on service and on electric business products should consider about the condition of markets

sufficiently. At the same time, Thailand companies should utilize the support from government and the related departments to be strong, stable, advanced and contain varieties of products. What's more, they should be sensitive to management and the change of markets to get bigger and bigger. Of course, trying to modify the weak aspects of the native companies has the priority in considering about a long lasting development. The strategy of building a strong brand is very important so companies should determine their direction of development depend on their advantages and continue a deeper and deeper development of brand in the Thailand electric business markets . Enhancing their own quality on service and the development of beneficial programs while focus on forming their own character in the public simultaneously is very important for the platform to keep getting bigger. Additionally, the protection of intellectual property right and the alternation of products in different generations is so crucial for companies. They should devote to updating their strategy and content for development with the change of the condition on markets to build system that could be more suitable for markets.

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A RESEARCH ON THE CONSTRUCTION OF THE STANDARDIZED SYSTEM OF CHINESE FOOD----UNDER THE SAMPLE OF YUNNAN CUISINE

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ABSTRACT

Under the sample of the standardization of Yunnan Cuisine, this article analyzes the problems and reasons in the process of food standardization. Then it makes an analysis on the standardization status based on food safety at home and abroad and analyzes the outstanding achievements and uses them for reference. What's more, it carries on some concrete analysis on the standardization system construction.

Keywords: Yunnan Cuisine, standard, food standardization

1. RELATED THEORETICAL BASIS

1.1 Research Methods

(1) Literature Research Method

Literature research method mainly refers to the collection, identification and arrangement of the documents, then through these research on the documents it means to form a scientific understanding of the facts.

Through deep analysis and assurance, it has found out the related theories and practical accordances. On the basis of systemic analysis, induction, refining on the related literature, it has hold a clear research key point and theoretical basis, and laid a solid theoretical foundation for the later in-depth studies.

(2) Field Survey Method

This article has made a corresponding field survey on the Yunnan Cuisine especially the rice-flour noodles and summarized the result of the investigation. The investigator has went to make an interview in the Yunnan Cuisine Institution of Yunnan University of Finance and Economics, and further summarized the current situation of its development.

(3) Case Analysis Method

This article uses a lot of cases including food safety at home and abroad and the application of food standardization system. A large number of cases has brought rich practical references and explorations.

1.2 literature review

Having consulting some relevant information, it is not difficult to find that researches on the Yunnan Cuisine are rich in the recent years. Very representative ones are also not few. For example, in *The Development of Yunnan Cuisine and the International Tourism City Construction of Kunming*, Yang Bin makes an analysis on the Yunnan Cuisine's positive role in the development of Kunming.² Che Guofu, Yu Ganqian's *Yunnan Cuisine's Standardization System Constructions* has carried on a preliminary discussion on the standardization system constructions.³ It points out that Yunnan cuisine's hierarchy of its standardized system adheres to the combination of history, culture and innovation. It is based on actual industry development to strive for complete coverage of Yunnan cuisine and under the guidance of the basic principles of applicability, it puts forward the structure chart of the hierarchy. The culture of Yunnan cuisine covers the nature, history, race, art, health and other cultural contents and it is an indispensable part of Yunnan cultural treasure house. As the representative of the food industry of Yunnan, it makes the heritage of Yunnan cuisine developed by standardizing methods, so it has significance in culture, economy and society. In Jin Xian's *The Innovation of the Yunnan Cuisine Industry*, she has carried on the exploration of the innovation and development of Yunnan cuisine and points out that Yunnan cuisine is made up with the food of 25 ethnic minorities and ethnic Han.⁴ It includes the folk, city, banquet dishes, all kinds of snacks and diet food. It has 7 main smells including acid, hot, bitter, sweet, salty, sweet, smelly and it is the most prominent national cuisine. Zhou Bin, Mu Feng and Zhu Peishou introduce the famous masters of Yunnan cuisine in the book *XiaGanYiDan*, and make an corresponding analysis of it.⁵ Ding Jianming analyzes the rich Yunnan cultural connotation in *The Culture Shows the Features of Yunnan Cuisine*. He thinks that people from all over the world gather in Kunming and bring tastes from all over the world so the food market is very active.⁶ Rich raw materials and communication of cooking skills lay the foundation of the Yunnan taste and promote its development. Unique, mysterious, diverse ethnic culture, profound cultural background, magnificent mountains and rivers, give eternal charm to Yunnan. Different national cultural backgrounds, diet customs, natural and social conditions, form the blooming food culture of Yunnan. Shan Mu's *Saying Yunnan Cuisine* points out that Yunnan is located in the low latitudes and has complex terrain with continuous lakes, mountains, rivers.⁷ The frigid, temperate and tropical climates are in the same province, so as to bring Yunnan an extremely rich "big garden". Although Yunnan cuisine has not ascended the top of Chinese famous food, and it cannot leave a deep feeling to the

² Yang Bin. *The Development of Yunnan Cuisine and the International Tourism City Construction of Kunming*. P1

³ Che Guofu, Yu Ganqian, Yang Aijun, Li Xuesong, Tang Yuejun, Wang Jiaqi. *An Research on the Construction of Yunnan Cuisine's Standardized System*. P2

⁴ Jin Xian. *The Innovation of the Yunnan Cuisine Industry*. P2

⁵ Zhou Bin, Mu Feng and Zhu Peishou. *XiaGanYiDan*. P2

⁶ Ding Jianming. *The Culture Shows the Features of Yunnan Cuisine*. P2

⁷ Shan Mu. *Saying Yunnan Cuisine*. P3

eaters, it is not the same as Yunnan people. It is seemingly insipid, but it has extremely rich individual characteristics. Ru Ziniu's *Building the First Brand of Yunnan Cuisine in Colorful Yunnan* makes an exploration for the branding of Yunnan cuisine.⁸ The research points out that in the capital, for diners who like Yunnan cuisine, the Colorful Yunnan Restaurant is so well-known. Since its entering in Beijing in 2004, it always regards the "health food" as the flag and adheres to the "food harmony supreme" concept. It combines the traditional "food harmony" concept with the modern ecological nutrition and make an analysis of Yunnan cuisine's development in Beijing. Some of these works analyzes Yunnan cuisine's history, present situation and prospect. Some of them do researches on the representative. Of course, there are a few of them make explosion on Yunnan cuisine's industrialization and standardized system. All in all, these works has provided the theoretical basis for this paper.

2 .CURRENT SITUATION OF CATERING INDUSTRY STANDARDIZATION BASED ON FOOD SAFETY AT HOME AND ABROAD

2.1 Current Situation Abroad

a.Current Standardization of McDonald's

McDonald's golden arches promises that each restaurant has a basically same menu, and "superior quality, good service, clean sanitation, bang for the buck". Its products, processing and cooking procedures and even the kitchen are decorated, standardized and controlled strictly. No matter how the market changes, the company always hold the most fundamental demands of the market. These demands are people are always carefully when they are consuming, life rhythm is speeding up, and customers need quick service, clean environment and food with high quality.

Among them, in the terms of the food quality, there are the extremely strict standardization requirements, and the first one is in the establishment of a series of network system including local production, supply, transportation to ensure high quality raw material supply. At the same time, McDonald's food must be strictly inspected. For example, only the seemingly simple burgers, must pass more than 40 kinds of quality control checks. The food procurement, product making, baking procedures, furnace temperature, and the cooking time, must be strictly operated by McDonald's rigorous standards.

b.Current Standardization of DICOS

Most managers of DICOS are from McDonald's, KFC or Texas Fried Chicken. Besides, some of the managers are senior cadres who have years of managing experience, and some are managers from the five-star restaurants from Taiwan, so the internal management of DICOS is relatively complete, detailed and perfect. There are more than 300 kinds of standardized operating manuals whose first draft were

⁸ Ru Ziniu. *Building the First Brand of Yunnan Cuisine in Colorful Yunnan*. P3

wholeheartedly written by its staff for five years. And because the Master Kong belongs to manufacturing, every process is written carefully, so the standardized operating procedures of DICOS are the most normative. Especially in the aspect of product quality, DICOS has also spent too much. First of all, it uses the Productmix strategy to improve the the turnover ratio of the fried chicken in order to improve brand awareness of DICOS.

2.2 Current Situation at Home

a.Current standardization of Anhui Cuisine

The content of the standardization of Anhui cuisine is very rich. It mainly includes researches on the comprehensive criteria to establish the standardized system of Anhui cuisine and it is the instructive and technical document of the standardization project. Secondly, it means to develop the most accurate standard of the terminology and make the technical language be used. Thirdly, it is going to set up the information classification and coding standards. Fourthly, the compiling standard of Anhui cuisine should adapt to the relevant law and the culture of the food industry. Fifthly, the sensory evaluation methods and standards should be developed. Besides, it is to set up the designing standard of Anhui cuisine. Then, the standard of raw materials must be taken into consideration because the quality of the cuisine largely depends on the quality of the raw material. So, there are accepting and inspecting standards of Anhui cuisine's raw materials purchasing. In addition, the standards of traditional, innovative and folk cuisine have been established. The following is the cooking technological standard including raw materials procurement and management standard, preliminary working standard, cutting and allocating standard, heaping standard.

b.Current standardization of Shandong Cuisine

The construction of the standardization of Shandong Cuisine mainly presents in the following five aspects. First of all, it a standardized consciousness, and is constantly establishing and carrying out the content of the standardization. When it is established, the production and services are all carried out under the standardization. The second is to be in accordance with the market-oriented management, and the selected products must make production choices according to the tastes of consumers. Thirdly, the optimal allocation of resources and optimum combination between food should be paid attention to. It should have not only a strict standard, but also corresponding series to combine the standardized dished into series of Shandong cuisine. The fourth is the innovation of science and technology. Whether traditional or new types and cuisine wherever in Shandong has its own standard. Among all kinds of standards, the best should be chosen and continually updated according to the demand of the market. The fifth is to pay attention to its own innovation and development. The standardization and the innovation should be balanced synchronously.

3 .PROBLEMS OF THE STANDARDIZATION OF YUNNAN CUISINE

3.1 Standardization System of Food to be Improved

System is the issue of national level and it is difficult to be effectively improved from bottom to top. But influences which are caused by the system is very big, so it is one of the biggest problems in the developing process of Yunnan Cuisine.

The related provisions of the national standard is coarsening and it can't be coincident with specific circumstances of all the areas. So each area has also made corresponding standard which is imperfect obviously. Some important new technologies cannot be updated in time. Concrete food hygiene standards are relatively few. Besides, in the process of standardization, the degree of market research is not enough, the practicability of standard is limited, and the time of setting a standard is often too long. All in all, it can't fully meet the demand of the current food industry.

3.2 Imperfection of Information Resource Service and Credit System

At present, food safety information in Yunnan always comes from different departments. Whether in different departments, or even in different units in the same department, there is a clear division of labor. But there is no unified service management department, and the sharing mechanism of information resources is not perfect, as a result, the amount of information resource is insufficient, and the utilization ratio of existing information resources and investment benefit is correspondingly low. The raw materials of the Yunnan cuisine are from agricultural products, however, the agriculture department collects information mainly from products detection, management, agricultural standardization construction and animal epidemic prevention. The health department mainly focus on food hygiene, food poisoning, and so on. The quality department concentrates on food brands and quality. But because the information comes from different department, coordination among departments can't be realized and published to the society and numbers of consumers in time.

3.3 Flush Wrongdoings of Small Companies and Workshops

Although in recent years, Yunnan cuisine has been deeply developed, small and medium-sized enterprises especially small companies and workshops are the main force of the business entity. There are only 10 companies' annual turnover reached 50 million yuan and only 5's reached 100 million yuan. These small companies and workshops have adverse health conditions, and abuse food additives. It was found that many small and medium-sized companies did not establish corresponding standardization systems. In general, as a labor-intensive industry, food industry practitioners general educational background and limited qualities. As a result, it also determines that Yunnan cuisine industry is like the whole food industry of our country. Namely, the whole quality is not high, the standard management consciousness is not strong, standard copying phenomena are very severe, and

corresponding management in advance is not attached importance to.

3.4 Ineffective Regulation of Food Certification and Standards

ISO certification can be said to be the first management system certification in our country and has a very good boost effect for the improvement of managing quality. But many people can't get better understanding of the standard especially high-rise managers do not have a high consciousness of taking part in the quality management. With the increasing of the authentication enterprises, certification can be reached by money, so its function has been weakened. The supervision of the certified companies and consulting enterprises has also been limited by the confidentiality agreement in the process of certification, as a result, relevant regulators can't proceed further more. For the unqualified enterprises, they are generally handled by the National Accreditation Council but the process is very complex and penalties are very limited. So penalties of enterprises, especially the small and medium-sized enterprises are weak, and that makes these enterprises risk buying cards, and lower costs to get benefits.

4. STANDARDIZATION SYSTEM CONSTRUCTION OF YUNNAN CUISINE

4.1 the Standardized Managing System

To strengthen the construction of the standardization system of Yunnan cuisine, firstly it is required that the industry itself should strengthen the internal managing system. The food industry in Yunnan still gives priority to with labor-intensive industries but has relatively extensive management which is not good to the construction of the standardization system. So relevant Yunnan cuisine industries must establish a evaluation mechanism with the characteristics of Yunnan. Namely, it is supposed to set up relevant managing system strictly from the details of daily work.

In addition, the quality standardized managing system of food is an important part of the standardization system. We can say that the standard is the basis of the safety managing system of food, and also the ruler of food safety. Except for the enterprises' strengthening the management of daily work, Yunnan province also should make efforts to strengthen the unified management and make each department's role fully played. An food management system which not only meets in Yunnan local characteristics but also be connected with domestic and international safety standardized system of food should be set up.

4.2 Strict Inspection System of Products

Yunnan cuisine has been effectively spread across China, but in order to keep the original taste and quality in its propagation process, a strict inspection system of products should be set up to constantly improve its replicability. On the one hand, a good equipment system is needed to realize the standardization of equipment. On the other hand, in the production process, promotion of replication is also needed. It

should pass the strict cost card system and standardized operating system to continuously strengthen the construction of the products' replicability. This is not only the requirement, but also one of the important contents of the standardization construction.

4.3 Detailed Raw Material Guarantee System

Raw materials are the basis of food and one of the most important features of Yunnan cuisine, so the government should strengthen the supervision for the raw materials of it. It should strictly be in accordance with the standards of "five", namely selecting a high-quality crop variety, formulate a set of safe and superior production standards, establishing an agricultural industrialized organization, wearing a green superior brand and then forming an effective raw material producing brand.

At the same time, the system of the raw materials typically regards the distribution center as the backing. Then, it should positively manage the related purchasing processes, standards and quality supervision system. Enterprises must make a series of strict standards including standards for raw materials, purchasing, and policy. In the process of the construction and implementation, every enterprise must have a specially-assigned person to supervise the work in order to ensure the maximum quality of the raw materials.

4.4 Professional Training System

In the construction of the standardization of Yunnan cuisine, a people oriented managing and training system should be established. At the same time, specific training details based on the characteristics of Yunnan cuisine should also be set up. In addition to its history, present situation, advantages and the related culture, these details should also include a series of basic knowledge. In the process of the training, standardized contents are the first to be taken into consideration, then, in the strengthening process, replication should be paid attention to. Different standards in procurement, transportation, production, cooking and service should be established. And different talents in different positions should strengthen communication according to the working situation and put forward more and better reproducible working standards constantly.

CONCLUSION

For the research of the standardization of Yunnan cuisine, on the one hand, this paper draws lessons from the standardization of other domestic and foreign catering industries, on the other hand, it makes a comprehensive and in-depth exploration of Yunnan cuisine. On the basis of the predecessors' researches and discoveries, it tries to build a basically perfect standardization system in theory, to compensate for the vacancy in this aspect. In terms of value use, through the standardization construction, theoretical achievements of the national standardization system of food can be enriched. So this paper has important practical significance for the development of Yunnan cuisine and it can play a referencing role in the standardization of other kinds of food.

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RESEARCH ON CORPORATE CULTURE COMPETITIVENESS BASED ON IMAGE RECOGNITION SYSTEM A CASE STUDY OF THE CHINESE YUNNAN HONGXIANG GROUP

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ABSTRACT

With the increasingly fierce market competition, the enterprise culture in the process of enterprise development is becoming more and more important and relevant research that corporate culture determines the corporate image, corporate culture is an invisible force, in relation to the success or failure of an enterprise. Enterprise image is the overall impression that people set up the enterprise's various signs (such as product features, marketing strategy, personnel style, etc.), which is the core of enterprise culture construction. The image of the enterprise is the manifestation of the enterprise spirit and culture. It is the general impression of the public on an enterprise, that is to say, the image of an enterprise determines the attitude of the consumer. Consumers will not choose the enterprises that the corporate image is poor to provide services. Good corporate image can bring a good impact on the enterprise, with the same quality of product, a good business image is more likely to attract consumers. So for the enterprise, has a good corporate image to establish a core competitiveness of enterprise culture.

In the case of Yunnan Hongxiang Yi Xin Tang Pharmaceutical (Group) Co., Ltd., Mr. Ruan Hong Xian who is the founder of the company offered career started in 1981, has been operating medicines and related industry for more than 30 years. The enterprise culture of the Yi Xin Tang mainly includes the following aspects: The first is the spirit of enterprise culture. Yi Xin Tang has always insisted on honesty is the founding of the company. In the fierce market competition, integrity is the cornerstone of the market economy, is an important part of the core competitiveness of company development. In addition to the importance of improving the pertinence and effectiveness of moral construction. Focus on interaction in moral education, so as to give full play to the initiative of employees. Pay attention to the interaction of moral education, and give full play to the subjective initiative of employees. The second is the system level of culture, Yi Xin Tang has been continuously developed to refine and improve the company's system, adhere to the market oriented assessment management mechanism, and effectively promote the development of the business. Sound management is the accumulation of corporate culture, the company is the pursuit of sustainable management of the supreme business rules. Finally, the company attaches great importance to its own brand building, and actively enhance

the image of the company, pay attention to team cooperation and unity. All in all, the company attaches great importance to the building of enterprise culture, pay attention to promote the competitiveness of enterprises culture. Because of this, the company will be able to stand out in many private pharmaceutical enterprises, and constantly expand their own scale, improve the competitiveness of enterprises in the market. And this study analysis the culture of the Yunnan Hongxiang Yi Xin Tang Pharmaceutical (Group) Co., Ltd., so that more and more enterprises pay attention to the important significance of enterprise culture on enterprise development.

Keywords: image system; enterprise culture competitiveness; Chinese Yunnan Hongxiang group

Corporate image design and construction of cultural competitiveness

1.1 Corporate Identity System

1.1.1 Definition of Corporate Identity System

CIS is Corporate Identity System and CI is Corporate Identity. IC is refers that enterprises plan to display and spread to their own business characteristics for the public, so that the public which is in the market has a standardized, differentiated impression and understanding to better recognition and leave a good impression for a particular enterprise. Corporate Identity System is shaping the corporate image, improve the competitiveness of enterprises which is one of the most effective theory and method, corporate identity and corporate image has a very close relationship. The unique corporate Identity can shape rich personality development of enterprises, and individual enterprise can also construct the corresponding enterprise culture, and to establish the enterprise brand effect.

1.1.2 The role of Corporate Identity System

Corporate Identity System has a very important function and meaning for the construction of enterprise culture and even for the development of enterprises and enhancing the competitiveness of enterprises.

First, can enhance corporate visibility and credibility of the intangible assets, a good corporate image is easier for the public to trust the enterprise organization sound and the sound system, in order to cultivate recognition and loyalty for the public. This is not only beneficial to communicate with the enterprises and consumers, but also enhance the differentiation advantage of enterprises and products. Secondly, can quickly improve the efficiency of enterprise information communication, the advertising and marketing can have a multiplier effect. Thirdly, we can optimize the enterprise culture, and quickly improve the enterprise employees work enthusiasm. And we can better adapt to the international competition, and the international market.

1.2 How to design the corporate image

Corporate image design continue to build and develop the enterprise culture, it is the inevitable choice to promote the enterprise cultural competitive power. In the current era of the fierce competition. Corporate image design, which practice the

design concept and design elements in order to form the enterprise's brand, the corporate image design is mainly from the following aspects:

1.2.1 Corporate concept identification system design

As a full display of corporate culture, the corporate concept identification system is the generalization and sublimation of the core values. It is the basis and soul for the image design, equivalent to the heart of the entire design.

1.2.2 Behavior identification system design

According to the corresponding design to carry on the Behavior identification system design after finishing the corporate concept identification system design. The spirit concept is the guidance to constrain corporate behavior, create a good corporate behavior identification system.

1.2.3 Visual identity system design

Visual identity system design is not only base on the enterprise core idea, must designed the symbol system according to the requirements of the enterprises business activities. The main purpose of this system is to carry out personalized description for enterprises, show the spirit kernel of the enterprise. And through a variety of media tools to allow the public to understand the information needed by the enterprise, and ultimately to make the public and consumers can identify and transfer the image of the enterprise. The basic design elements in the process of designing that include the name of the enterprise's definition, enterprise logo design, enterprise modeling, enterprise slogan and the idea promotion.

1.3 How to build corporate culture competitiveness

Image recognition system is based on above mentioned, combined with the promotion of the enterprise culture competitiveness. The enterprise should want to achieve the development of the overall, must continue to develop, build the competitiveness of the enterprise culture, the enterprise should want to achieve the development of the overall, must continue to develop and build the competitiveness of the enterprise culture, enhance the enterprises cultural competitiveness that should proceed from the following aspects:

1.3.1 Enterprises Core values construction

Enterprises Core values construction that each enterprise should combine with their main business and the contribution and value which is made for the society to build a belongs to own enterprise's core values. Firstly, focus on the service, business and development. At the same time, should pay attention to reflect industry characteristics, geographical features and operating characteristics of enterprises.

In addition, enterprise core values should also reflect the business philosophy of the enterprise leaders, It is not appropriate to take the leadership of the business philosophy as the basis in the process of forming and refining the core values.

1.3.2 The basic principles of constructing enterprise culture

In addition, to build the enterprise basic principles, the basic principles mainly include the three points as follow:

First is the principle of system, enterprise culture is a complicated system, it is mainly for the value of the enterprise concept, value concept, management philosophy and material culture, system culture, brand culture and behavior culture. Enterprise spirit culture is the core of enterprise culture, and it is also an important source to encourage employees to be active and creative.

The second is the strategic principle, corporate culture is often involved in the long-term interests of the enterprise, but simply focus on the current development of the situation that is likely to ignore the sustainability and periodicity of enterprise development.

Thirdly, must have the originality principle. The principle of originality is the most important principle in the construction of enterprise culture, this principle is the basis of individual enterprise, as the core values of corporate culture, the structure must depend on the enterprise in the long-term operation and development.

Case study -----Hong Xiang Group's corporate image design and corporate culture construction

2.1 Kunming Hong Xiang Group

2.1.1 The development course of the Kunming Hong Xiang Group

Hongxiang Yixintang was the predecessor of the Kunming Hong Xiang Group that is the largest pharmaceutical retail chain enterprises in Yunnan province and has been restructured into a state-owned joint-stock enterprises. Kunming Hong Xiang Group become the TOP 10 of the China pharmaceutical retail chain enterprises which has been named China pharmaceutical business association for 10 consecutive years, and become the largest drug dealers in Southwest China for well-known domestic and foreign pharmaceutical manufacturers. The Chinese herbal medicine production, processing and sales ranked TOP 1 in Yunnan province for 10 consecutive years. Yunnan Hongxiang Pharmaceutical (Group) Co., Ltd. has developed into a concentrated herbs planting, processing and marketing; western medicine research and development, production, wholesale, retail chain business and medical, education, industry as one of the large-scale private pharmaceutical group after 27 years. Yi xin Tang has become the largest pharmaceutical retail chain enterprises in Yunnan Province, and have more than 600 direct chain pharmacies in Sichuan, Yunnan, Guizhou, Jin, Guangxi and other 5 provinces. Yunnan Hongxiang Pharmaceutical (Group) Co., Ltd. win the consumers and patients alike according to the accurate market rules, wholeheartedly for the people that is the principle of service, and win the title of China's outstanding scientific and technological private enterprise and become the largest drug dealers in Southwest China for well-known domestic and foreign pharmaceutical manufacturers. Because of the 1.05 billion sales, Kunming Hong Xiang Group become the TOP 10 of the China pharmaceutical retail chain enterprises which has been named China pharmaceutical business association, has won the first place in the Yunnan pharmaceutical retail chain sales.

2.1.2 Kunming Hongxiang group corporate culture

The information can be displayed in the Kunming Hongxiang group's official website, Hongxiang group enterprise culture mainly includes the following aspects:

First is the company's environment. The company overall building design dignified and generous from the design, especially the brand name is highlighting the majestic in front of the company. The company's office building have the three color flag that means the development and democracy, the hall design is very eye-catching atmosphere and focus on democracy. The stores are designed to green, highlighting its healthy development theme. Logistics center uniform appear obvious container transport enterprise quality.

2.2 The status of Kunming Hongxiang group's corporate culture

Hongxiang group corporate culture development is still relatively intact, Hongxiang corporate culture coverage enterprises after nearly 30 years development, and has played a very important role in daily work. But throughout the Hongxiang group corporate culture, we is not difficult to find the development that still stay on the surface, and it is not Hongxiang characteristics, suitable to promote Hongxiang to further deepen the development of enterprise culture idea and the concept of corporate culture, even without professional enterprise internal related guidance. Kunming Hongxiang group although formed relatively comprehensive system of corporate culture, but the overall development is lack of guidance and timeliness.

2.3 The problem of the Kunming Hongxiang group's corporate culture

Above mentioned, Kunming Hongxiang group although has made big progress and formed a relatively complete corporate culture in the overall development, but the corporate culture is not systematic and meticulous, and don't have obvious forward-looking and systematic. In summary, the enterprise culture mainly has the following problems: 1, the understanding is not in place, lack of obvious systematic; 2, enterprise lack of rich and distinctive enterprise culture; 3, enterprise culture construction is random.

The corporate culture randomness: 1. Follow the fashion. The corporate culture as the fashion, especially in the annual theme design, and not fully combined with the enterprise's own development situation in the design. 2. Lack of system planning and design. The purpose of enterprise culture construction service in the business activities of enterprises, how to transform the enterprise culture into the enterprise competitiveness. The enterprise culture construction should be combined with the management activities of the enterprise to implement the actual work of the enterprise. Hongxiang group have the annual plan. Only enterprise culture construction work is not planned, the work carried out at random, lack of comprehensive planning and detailed planning of the long-term planning. 3. Lack of institutional guarantee. Enterprise management layer do not pay enough attention of enterprise culture. The enterprise culture construction is not an important part of the business development strategy, enterprise culture construction is not belong to the daily management activities. The construction of enterprise culture lack a set of

perfect and effective system guarantee. 4. Frequent revision of corporate culture system. The factors of corporate culture often change, change quickly and even make employees too busy to attend to all. And ignore the front-line staff do not pay attention to the participation of employees.

3.3 The development strategy of Hongxiang group enterprise culture in the future

In order to better the development of Hongxiang group's corporate culture, the author thinks that should achieve its further development from the following several aspects. Firstly, full participation, enhance participation and participate in quality standards. Implement the corporate image recognition system. Finally, strengthen supervision, establish regulatory authorities of the corporate image recognition system of the regulatory authorities.

Conclusion and Prospect

Enterprise image is the overall impression that people set up by the enterprise's various signs (such as product features, marketing strategy, personnel style, etc.), which is the core of enterprise culture construction. Corporate image can strengthen the initiative of enterprises in the market. Good corporate image can strengthen employees' sense of belonging to the enterprise, a sense of pride. Now many state-owned enterprises have core technology, but not too much emphasis on corporate culture. There is no good corporate image, resulting in the loss of the company's core technology, cruel fate was eventually acquired by foreign companies. This paper takes Kunming Hongxiang set as a blueprint, an exploration of the corporate culture competitiveness is put forward by the opportunity image recognition system, there are still a lot of problems, but also find a lot of development blueprint and direction. The enterprises of our country face more capacious development opportunity in the new historical background, is also facing more brutal competition and challenge. In order to further deepening development and implement corporate image recognition system, it is the inevitable choice of the transformation and development for the enterprises in China from the cultural competitiveness. The choice is painful, change is painful, but we have reason to believe that the will fly out of more beautiful fantasy enterprises after selection and pain China.

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THE OBSTACLES OF THAI SME'S ACCESS TO INVESTMENT FUND

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Abstract

The factors that have hindered the innovation development of the medium and small sized enterprises (SMEs) in Thailand are : 1) the inadequacy of the government's supports, 2) the high cost of the innovation development and R & D, and 3) the difficulty in seeking the funding sources. The factors that have prompted the refusal of the applications for SME loans : 1) no collateral, 2) the lack of experience but aim at excellent business outputs, 3) no apparent income , 4) no business plan, 5) having NPL history, 6) failure to search for costs or revenue, 7) the inability to learn of his own limitations, 8) Failure to Repay 9) no preparation, and 10) having negative attitude.

Keywords: Thai SME, Investment Fund

Preface

Thailand's economy has relied on exports mainly through its 20 past years. The industrial sector has accounted for more than 70% when compared to the country's export revenues. Several parties, both public and private, have turned their attention to the industries and given the supports to the small and medium enterprises, or the SMEs. Since 1987, foreign investment has poured into various industries. The expansion of the supporting industries and a large number of SMEs have surfaced from the development of the petrochemical megacorps as an upstream industry in the eastern seaboard, the increased creation of the industrial parks, and the entry of many manufacturing, especially the automotive, the electronic and the electrical appliance industries. Significant social changes have proceeded including the huge migration of laborers from the agricultural to the manufacturing and service sectors. (Ministry of industry, 2016).

The meager access to capital is a primary problem of the the Thail SME entrepreneurs who want to increase their competitiveness or expand the business and investment abroad. As a result, they have lost the opportunities to develop their potentiality and their ability to compete is being lower than the competitors'. Currently, only 30 per cent of the SME entrepreneurs can apply for loans at financial institutions but at a

higher interest rate than the larger firms'. Lending to SMEs is being scarce because of the very little understanding of the bank staffs on the SME businesses and the shortfall of the SMEs' systematic accounting system and the collaterals. The SMEs are relying on the off-system financing and need to pay interest at a high rate. (Kasikorn Thai Research Center, 2016).

The Meaning and Classification of the Thai Small and Medium-sized Enterprises

Small and medium-sized enterprises ("SMEs") stands for the small and medium enterprises. They are the business entities that are larger than the community enterprises and are most business of the country. They are important for the country's development. The Ministerial Regulation on the Employments and Values of the Fixed Assets of the SMEs A.D. 2002 controls this kind of business. The rules that classify the types of SMEs as to whether they are small or medium sized are : 1) the high value of the fixed assets and 2.) the number of employments, as follows: (Tham Phonlaloke, 2016).

Type of Enterprise	Number of Employment (Pesons)		Fixed Assets (Bt million)	
	Small Size	Medium Size	Small Size	Medium Size
Product Manufacturing	Not more than 50	51-200	Not more than 50	51-200
Wholesale	Not more than 25	26-50	Not more than 50	51-100
Retail	Not more than 15	16-30	Not more than 30	31-600
Servicing	Not more than 50	51-200	Not more than 50	51-200

An SME can be conducted by one person or more or in case of having several partners, the SMEs are frequently established as juristic entities in various business types. Below is the conclusion.

Serial No.	Type	Feature
1	Ordinary person	An alive ordinary person who as per the Civil and Commercial Code (Section 15)
2	Non-juristic Group of Persons	Two people or more agree to conduct the joint business with the objective of sharing the profit of that enterprise (tax entity as per Section 56 of the Revenue Code).
3	Non-juristic Ordinary Partnership	Two people or more agree to do the joint business with the objective of sharing the profit of that enterprise (tax entity as per Section 56 of the Revenue Code).

4	Juristic Ordinary Partnership	Two people or more make investment to become owners of an enterprise. All partners are subject to unlimited liabilities and that enterprise needs to be registered as a juristic person under the Civil and Commercial Code.
5	Limited Partnership	Two or more people make investment to become owners of an enterprise. Some partners are subject to unlimited liabilities but others are not. The enterprise needs to be registered as a juristic person under the Civil and Commercial Code.
6	Limited Company	Three or more people make investment to be owners of an enterprise. Each shareholder is liable to the debts for no more than his investment amount. The enterprise needs to be registered as a legal entity in accordance with the Civil and Commercial Code.
7	Community Enterprise	An enterprise of a community that is engaged in goods production or service provision or any other task that is administered by a group of persons whose ways of life are bounded. They form the enterprise to build income for self reliance of their families, community and between communities. The enterprise must be registered at the Department of Agricultural Promotion as per the Community Enterprise Promotion Act A.D. 2005.

The Analysis on the Barriers of the Capital Access of the Thai SMEs and the Causes of the Loan Application Disapproval

Following are the factors that have barred the Thai SMEs' access to capitals and the reasons of the disapproval to their loan applications (Chao Gengchon, Phimonwan Mahatjachariyawong, and Thanyalak Watcharachaisuraphon, 2014).

1. **No collateral.** It is a standard cause of the credit application rebuttal despite the banking or financial institution system's requirement of the security against loan. The collateral must be in the form as the bank demands. Most entrepreneurs of the small enterprises that are newly operated or those in the early business stage do not have sufficient financial status to acquire the loan collateral such as the title deeds of land, houses or condominiums. In case of having a collateral, it generally is a house that has already been in mortgage and hence cannot be use as a collateral for a new loan as per the business risks designated by the bank upon the business operations and characteristics.

2. **No experience but aim at excellent performances.** Most new businesses start from the personal favor of the entrepreneurs or the aspirations from where else

such as the books on SMEs, the newspapers, and an observant of certain successful businesses. Those lead the entrepreneurs to believe that “If that business belonged to me, I would be able to do it.” For instance, a business man who has visited a cafe or a bakery with a large bunch of customers may think that he can open such a successful store although he does not drink coffee or does not have any knowledge of the bakery. Aiming for the output excellence in the business the entrepreneur has never done before may result in the bank's decline of his loan application that has complete collateral. One reason is that the entrepreneur cannot determine any clear business direction because he has too many of them. Another reason is that the bank may believe that the entrepreneur shall not be able to survive the business ebb and tide and may cause bad debts in the future.

3. **No apparent revenue.** Some entrepreneurs fail to do the business via the banking system. They frequently trade by cash under the daily offsetting, possibly because the current deposit interest rates are very low. To them, whether or not putting the money into the bank accounts leads to the same financial outcome but time wasting of the deposits and withdrawals. All banks, either governmental or private, apply the standard lending conditions. They require the loan applicants' affidavits for approval consideration. The bank needs to check the financial movement in the bank account for at least 6 months or the statement of the bank account for 6 months earlier as to how much revenue, expenses and outstanding balance or profit the enterprise has.

4. **No Business Plan.** The Business Plan is a document for the lending consideration. It shows the business operations, revenues, expenditures, investments, the breakeven points and the profits, particularly, the future business operations. In most cases, the business plan is written by the entrepreneur within his own understanding. That easily yields the confusion of topics or details. The business plan in fact is used by the lending approval official to analyze the business involved. The business plan written by the entrepreneur may include additional information other than those directly discussed with and interviewed by the loan officer or his supervisor or the loan approval board. The entrepreneur should keep in mind that the bad or incomplete preparation of the business plan may cause the bank's lending denial despite the existence of full collateral, business knowledge and experience or the apparent revenue. Accordingly, the entrepreneur needs to understand the business plan written by himself or any hired person before going to contact the bank.

5. **The NPL History.** An NPL (non-performing loan) history is regarded as a key factor in the refusal to the borrowing requests, in nearly 100% cases, no matter when that bad record arose such as during the economic bubble bursting. The bad records may be from the housing loan, the credit card loan or whatever debts. If an entrepreneur wants to borrow money from the bank, he must improve to qualify. Otherwise, even if the entrepreneur is fully qualified but with the NPL history, the

bank may highly likely reject his loan application.

6. **No Awareness of the Costs or Income.** The “new” entrepreneurs especially do not know the costs or income of their businesses because they cannot correctly calculate the cost of the business start-up, whether they are investing in the assets such as land and buildings or the costs incurred, such as fees, salaries, the cost of production, the cost of product purchases and tap water, electricity, public relations charges, etc. The shortage of those significant financial issues is an important factor that leads to the banks or financial institutions' lending denial upon the inconfidence in the business owners' managerial ability.

7. **No Perception towards Limitations.** In terms of business, not every bank, whether commercial or government, will provide a loan to every business or provide all financial services. For example, a basic agricultural businesses may ask for a loan at the agricultural and cooperatives banks only because other banks may reject due to the non-availability of the agricultural lending. The banks without skills or non-provision of certain services like L / C opening or foreign trade transactions may not be appropriate for the exporting businesses. It thus is reasonable to choose the lending or other services of the banks most appropriate to the business.

8. **Failure to Repay.** The inability to pay off the loan is a significant factor for a bank not to make a loan. The mishap may be due to the inadequate cash flows from the profits or the operating results, or due to the insufficiency of the balance for the business management after the loan repayment, or due to the cash flows in the business-risky level if certain event makes the income less than predicted, for instance.

9. **No Preparation.** This is a factor that may not have serious consequences up to the bank's lending refusal, but it may cause a delay of the contacts or a lagged loan approval. For example, no business documents such as the financial statements, the business licenses, the sale documents, the customer database information, or the income or expenditure documents for lending consideration, particularly in case of the business plan written by the non-owner of the business or by the professional maker, may cause the entrepreneur to give unclear replies to the inquiries of the bank officials. The bank then will consider that the business operator does not have sufficient knowledge about his business operations and may decline to lend.

10. **The Negative Attitude.** The negative attitude is one factor that can bar the business owners from taking out loans at banks. It is mostly because of their attitudes or habits on the bank services. The entrepreneurs may have bad experience about the bank services or may have been denied when asking for loans. They often make complaints or blame about the earlier banks or bank officials' deficiency of knowledge in their business or the business in general or even comment about the stupidity of those bank officials. Such entrepreneurs are “the persons with problems” or “because you are like this, the bank so refused.” The complaining habits or the

negative attitude fail the character test and may even induce the lending rejection eventually. It was frequently found that the entrepreneurs with negative attitude made contacts to borrow at several banks and all of those banks declined.

The Policies to Eliminate Barriers of the Thai SMEs to Financial Access

Natthawat Sukhasirawat and Natthasit Gedsri (2014) studied the challenges and restrictions of the drives for innovations of the SMEs in Thailand through various literatures, other researches, articles and databases including the interviews with top executives of those ventures, which had been supported by the National Innovation Agency (NIA). The research concluded that the barriers to the development of the SMEs' innovations were: (1) the inadequacy of the governmental supports, (2) the high cost of the innovation development and R & D, and (3) the difficulty in acquiring capital.

Regarding the barriers to the SMEs' financial access, the survey on the household sector's access to the financial services by the Bank of Thailand during 2011 – 2013 discovered that 8.6 per cent of the entire households used more lending services at commercial banks in 2013 compared with 7.6 per cent in 2011 but another 91.3 per cent could not reach such loan services. Thus, the solution to eradicate the barrier to financial access of the Thai SMEs was the building of more risk management readiness to ease the commercial banks adjust the lending conditions as follows:

- 1. The Increase in the Flexibility of the Guarantee Mechanism.** Examples are the guarantees by the Small Business Credit Guarantee Corporation (SBCG) and the guarantees by persons whereas the security assets are more diversified to include deposits, bonds, and machinery. Several banks accept machines as the guarantee assets in spite of the view that they are the secondary collateral. (Machines cannot replace land and buildings because of their lack of liquidity).

- 2. More Attention to Current Business Information.** This entails more consideration towards the movements of the customers' accounts including the relaxation of the revenue and spending data of the customers even if they have the incomplete and insufficient revenue and expenditure bases in the past. Extending the business insight to the clients' trade counterparts in the same supply chain will help the banks see the movement of cash flows. The oil business, for instance, is in the Supply Chain Financing Project with attention to the franchisees in the quality screening dimension.

- 3. More Consideration to the Future Information of the Customers.** The feasibility of the project, the contract parties and the rights of the project need to be contemplated as per the nature of that business before a loan is made. The construction business, for instance,

can acquire loans more easily. Banks should pay more diligence to evidence of certain professional businesses like medical doctors, dentists, pharmacists, etc. when they apply for loans.

To solve the barriers of the SMEs' access to financial sources, financial guarantees and direct funding should be provided to help them evolve the innovations. The Thai government should give the capitals for their R&D activities so as to reduce the related risks. The SMEs should have the collaborative networks between organizations like the universities and the technological or research institutions in order to help the innovation development successful. The government should establish the educational institutions that aim to cultivate and drive the innovations. Graduates from those schools shall hence have the modern knowledge and skills on the innovation development.

The Policies to Eliminate the Barriers of the Thai SMEs' Access to Capitals: Foreign Methods

Japan is a country whose industrial- and technological-driven economy has always been in the world's economic top list. But today, the Japanese economy is facing enormous problems and challenges from both the internal and external factors that range from natural disasters to energy problems. The majority of the Japanese population has entered their old age and that has made the Japanese economy short of expansion. The problems are expected to be more severe in the future. Although the Japanese domestic economy is being in trouble, the Japanese investors have still played a key role in the economic expansion in various regions of the world, especially in ASEAN. The data of the survey made by the Japan External Trade Organization (JETRO) in Bangkok in 2011 indicated that the number of Japanese investors (only those registered with JETRO) in Thailand totaled 1,337 from all 4,944 in ASEAN. That accounted for 27 percent. Followed was Vietnam. The investment of the Japanese investors in ASEAN in the future will be different from the past. That is, most of the Japanese investment shall be made by the small and medium businesses mainly. Joint investments with local entrepreneurs with regard to the capitals and the business operations are therefore needed. Although the investment amount of an investor may not be as high as that of each earlier, the Japanese investors have the advantages of technology and expertise and that can iron out the Thai SMEs' weaknesses. However, the Thai entrepreneurs have to recognize and give priority to the language and working culture, in which the small Japanese companies often adhere to their values like hard working, the determined devotion to commitments, the seniority system and the loyalty to the organization. The Japanese investors are frail in being the small and medium-sized enterprises and hence lacking the expertise in modern management and the ability to communicate in English (Ministry of Industry, 2016).

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**REDUCING ORGANIZATIONAL CONFLICTS BY USING
INTERPERSONAL RELATIONSHIP MANAGEMENT
ACCORDING TO THE 4 PRINCIPLES OF SERVICE (SANGAHA-
VATTHU 4), A CONTRAST BETWEEN ASIAN AND EUROPEAN
– AMERICAN FIRMS**

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Abstract

The purpose of this research was to study the interpersonal relationship management according to the 4 Principles of Service (Sangaha-vatthu 4) and its effect in reducing 3 types of organizational conflicts – task, relationship, and process. The sampled population consisted of 230 employees from the Asian Electronics companies and 230 employees from the European-American Electronics companies. We found that 1) People working in the Asian firms had more focus on Dana (Giving) most, whereas the European-American group focused more on Samanattata (Equitability). 2) From hypothesis testing, we found that employees in the Asian firms with different ages had different degree of Samanattata. Employees from the European-American firms with different gender, age, education level, work experience, and income all had different levels of Sangaha-vatthu in all aspects. 3) Different Sangaha-vatthu 4 aspects (variables) had direct on the level of organizational conflict: tasks, relationship, and process conflicts, with the path coefficient of -0.280 for the Asian group, and -0.352 for the European-American group.

Keywords: Task Conflict, Relationship Conflict, Process Conflict, Sangaha-vatthu 4

Introduction

Nowadays societies in the modern world are enriched with people with diverse attitudes and personalities, doing different tasks and achieving different goals and jobs. Even under democracy, the right to freedom of expression might lead to organizational conflict without the presence of equitability, efficient communication, interpersonal management or consideration of mutual interests, which would create unhappy work conditions and inevitably conflicts. Organizational goals might have been deterred as well, therefore, a good interpersonal relationship management tools should be proliferated throughout the organization to avoid such negative consequences.

Sangaha-vatthu 4 is one of the Buddhism teachings that promotes unity and could be adapted and used for reducing organizational conflicts, drives congruency within the organization, and creates positive organization citizenship. This would boost up the job satisfaction of the employees, leading to better cooperation and sustainable development of the organization as the members' attitude and behaviors would be positively changed, leading to good corporate culture, increasing productivity, and ultimately fulfilling the objectives of the company.

Research Objectives

1. To study the opinion of employees in the Electronics industry of Asian and European-American firms, regarding the interpersonal relationship management according to Sangaha-vatthu 4.
2. To study the effect of gender, age, education level, marital status, work experience, income of employees in the Electronics sector of Asian and European-American firms, on the interpersonal relationship management according to Sangaha-vatthu 4.
3. To see the influence of Sangaha-vatthu 4 aspects on reducing task, relationship, and process conflicts.

Research Hypotheses

1. Different personal backgrounds affect Sangaha-vatthu 4 interpersonal relationship management in each aspect differently.
2. Sangaha-vatthu 4 interpersonal relationship management would lead to the reduction of task, relationship, process conflicts of the employees in the Electronics sector in Asian and European-American firms.

Literature Review

A good member of an organization and interpersonal relationship management according to Sangaha-vatthu 4

Organizational Citizenship Behavior (OCB) could be used to explain about synergistic behaviors of members of the same organization that brings about job efficiency as the result of the interaction between the members or other contextual factors. When the employees perceived Organizational Justice, interact with the leader or other members of the organization, they would show positive responses and get beneficial exchange in the end (Podsakoff, MacKenzie, Paine & Bachrach, 2000; Lavell, Rupp & Brockner, 2007).

Sabratt (2013) identified 7 characteristics of a good organizational citizenship: 1) Altruism – volunteering to help with others' jobs, having courtesy, and to attempt to prevent or end potential conflicts for peacemaking purposes;

2) Sportsmanship – having the positive mindset, perseverance to endure and overcome problems, hardships, tensions, or pressures resulting from job operations or colleagues;

3) Organizational Loyalty – displaying the support and communication about the organization to the third party in the positive manner; for example, employees who mention positive things about the company to both their colleagues and outsiders, being responsible and protective about company's assets or bonded with the company even in the time of hardship;

4) Consciousness – being open-minded and accepting about the rules and regulations of the company both on and off duty, with integrity such as not being tardy, being protective about company's properties, and not conducting personal affairs during work hours;

5) Individual Initiative – having employees who find new ways of improving their own tasks and give suggestions or new initiatives to the company to improve their efficiency;

6) Civic Virtue – the employees have their voices in determining the well-being, happiness, and security of the organization such as being cooperative and active participate in company's events and giving opinions, ideas, attend meetings or policy recommendations, actively seeking information about opportunities or threats to the organization, and duly obliged to the duty tasked by the organization;

7) Self-Development – the employees are proactive, willing to learn new things and research to improve own capability that will later benefit the organization.

Sangaha-vatthu 4 is the principle that makes people coexist and work together in a happy manner with satisfaction similarly to the OCB. Supporting behaviors would facilitate the good working environment or conditions, which would drive productivity as the principle promotes unity and trust, which in turns create organizational loyalty. Thongarb (2010) identified the components of Sangaha-vatthu 4 are as follows:

1) Dana (Corporate Philanthropy) – being considerate and helpful to others and giving advice and sharing knowledge regarding work operation;

2) Piyavaca (Corporate Communication) – efficient communication, supportive, giving amicable speech, giving praises at the right moment, no framing or instigating others;

3) Atthacariya (Community Volunteering) – good behavior, being selfless, thinking more about public interests more than personal interests and giving supports to others;

4) Samanattata (Equitable Treatment) – having integrity, giving equitable treatments to others, knowing time and places, having the perseverance to endure the journey together with the colleagues, supervisors, subordinates, and the organization.

Organizational conflicts

Despite the size of any organization, conflicts inevitably happen. In order for the organization to continue to function efficiently, the conflicts must be managed by comprehending the root cause of those conflicts as well as their magnitudes, which is a challenging task for any management team or leader of an organization (Chienwattanasook, 2010). Organizational conflicts are normal phenomenon when people are living together. With sound management, the organization would become more active to spark innovation contest intra-organization, which is beneficial to the firm. Thus conflicts should not be avoided, but managed and sustained at an appropriate level (DeDreu and Van, 1997).

Group efficiency has specific relationship with the type of conflict. Teams with good operational results with low tendency to face process conflict, teams with initially low relationship conflict and increasing relationship conflict as the deadline approaches, or groups with moderate degree of task conflicts during team interaction, were some of the traits that defined teams with high regards for each of their members and would be more openly to talk about those conflicts (Jehn and Mannix, 2001).

The researcher would like to propose the framework of the study as follows:

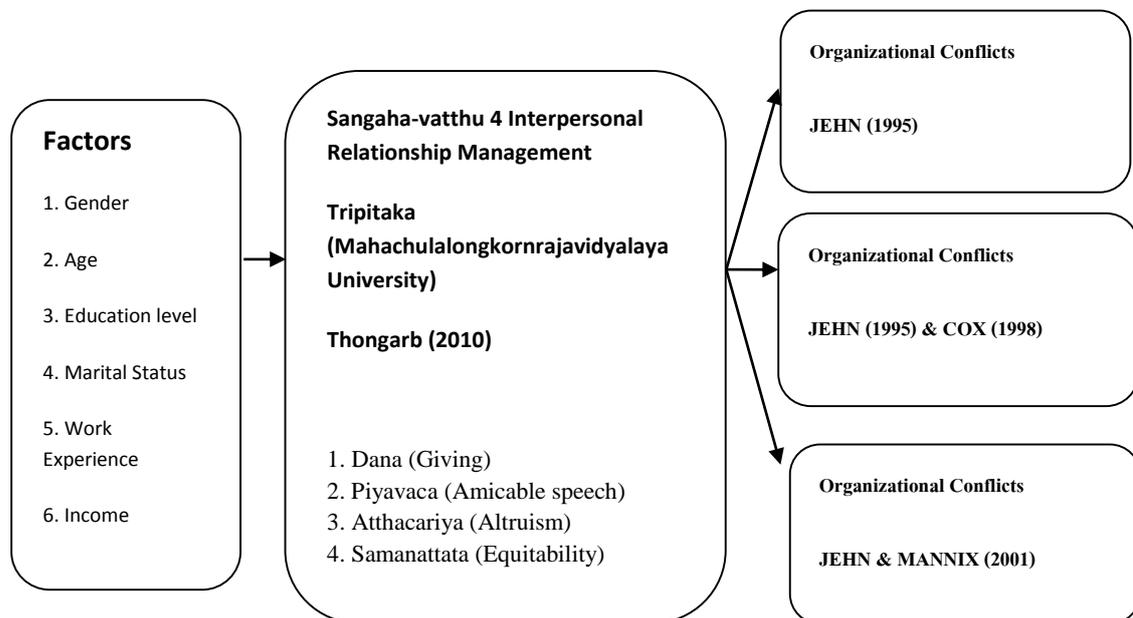


Figure 1: Research Framework

Methodology

This is a Quantitative Research by using Survey, with data collection from Questionnaires.

1. Sample size and population

The population of this study was defined as the employees of the Electronic parts manufacturing firms within Prathum Thani and Ayutthaya provinces, totaling 44,526 persons (DIW, 2015), by categorizing into Asian and European-American employee groups. The random sampling method was based on Taro Yamane's method, attaining 396 samples and another 64 samples as backup for the completion of sample group for both Purposive and Quota Sampling, 230 Asian and 230 European-American employee samples were obtained.

2. Research Tools

The questionnaires were designed based on several ideologies and theories, adapted and proposed to the advisor for checking as well as 3 specialists to test for the accuracy of the content, with the Index of Correlation (IOC) > 0.67. To test for the reliability of the variables, the Cronbach's α of 0.958 was obtained for the Sangaha-vatthu 4 interpersonal relationship management aspects factor and 0.954 for the organizational conflict factor.

3. Data Analysis

3.1 Personal or Demographics of the respondents - basic statistics were used: Frequency and Percentage.

3.2 Sangaha-vatthu 4 interpersonal relationship management related factors and Organizational Conflicts – Task, Relationship, and Process: Mean, SD, T-Test and F-Test were used for comparison according to each factor.

3.3 How Sangaha-vatthu 4 international relationship management aspects affect Organizational Conflicts – Task, Relationship, and Process: using Structural Equation Modeling (SEM) by AMOS program.

Results

The respondents for the Asian Electronics group were mostly female (73%), on the age range 31-35 (31.74%) the most, with 66.52% finishing their Bachelor Degree. 55.65% were single, having 5-10 years of working experience (33.48%), and earn more than THB 35,000 a month (25.22%).

For the European-American group, 77% were female, between 26-30 years of age (33.17%), with 53.04% finishing their Bachelor Degree. 50.43% were single, having 5-10 years of working experience (32.61%), and 21.74% earning in the range of THB 15,001-20,000 and more than THB 35,000.

Table 1 – SD and X Bar comparison of Sangaha-vatthu 4 aspects of employees working in the Electronics sector at Asian and European-American firms

Sangaha-vatthu Relationship aspects	Asian Group		European – American Group	
	\bar{X}	S.D.	\bar{X}	S.D.
Dhana	3.91	0.53	3.72	0.69
Piyavaca	3.84	0.55	3.71	0.64
Atthacariya	3.83	0.53	3.77	0.57
Samanattata	3.90	0.51	3.79	0.64
Total Average	3.87	0.46	3.75	0.58

For the Asian group, the average score of Sangaha-vatthu interpersonal relationship management aspects was 3.87, with the SD of 0.46, with the highest score in Dhana then Samanattata, and least in Atthacariya. For the European-American group, the average score of the Sangaha-vatthu interpersonal relationship management aspects was 3.75, with the SD of 0.58, with the highest score in Samanattata then Atthacariya, and least in Piyavaca.

Table 2 – SD and X Bar comparison of Organizational Conflicts of employees working in the Electronics sector at Asian and European-American firms

Organizational Conflicts	Asian Group		European-American Group	
	\bar{X}	S.D.	\bar{X}	S.D.
Task	2.60	0.77	2.49	0.69
Relationship	2.38	0.77	2.45	0.69
Process	2.50	0.81	2.50	0.74
Total Average	2.50	0.72	2.48	0.65

For Asian group's opinion, conflicts did not occur frequently (2.50) same as the European-American group (2.48). The Asian group perceived that Task-related organizational conflicts occurred most frequently (2.60), whereas the European-American perceived that Process-related organizational conflicts occurred most frequently (2.50).

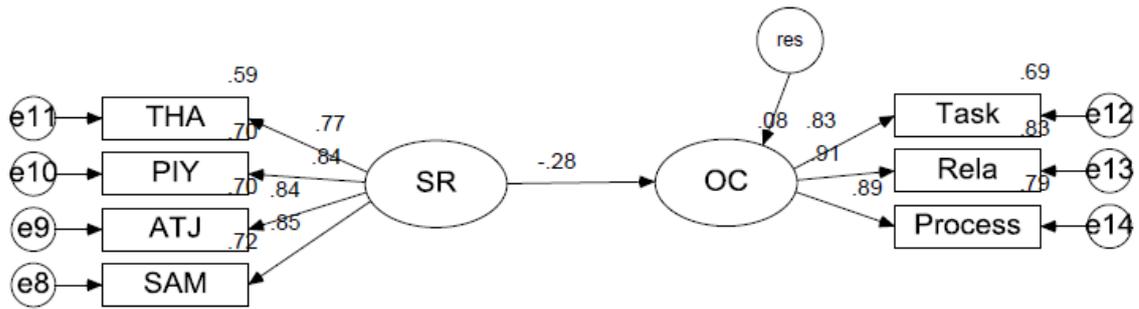


Figure 2 – Result of Structure Equation Modeling of the factors influencing organizational conflicts of employees in Electronics sector, Asian group.

From the hypothesis testing, we found the following Chi-Square = 13.713, p-value = 0.249, RMR = 0.010, RMSEA = 0.033, GFI = 0.984, CMIN/DF = 1.247, and that the Asian group had direct inverse influence value of -0.280 or 28%, affecting conflicts as follows: Task (-0.233), Relationship (-0.255), Process (-0.249). Sangaha-vatthu 4 interpersonal relationship management could explain the reduction in Task conflicts (69.40%), Relationship conflicts (83.33%), and Process conflicts (79.30%), with the Significance level of 0.01.

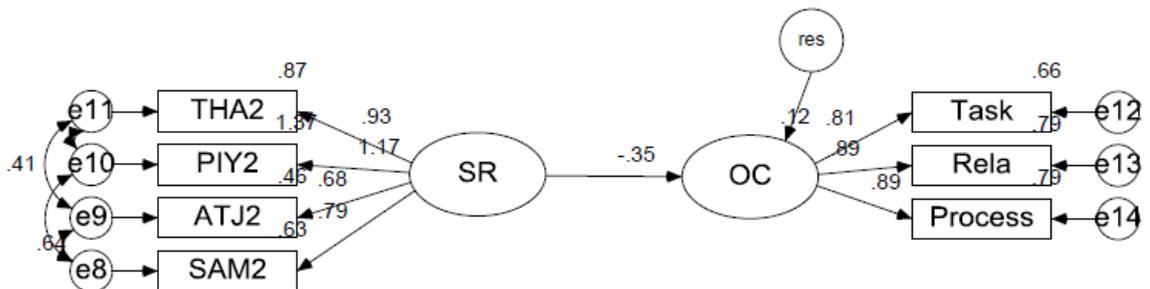


Figure 3 – Result of Structure Equation Modeling of the factors influencing organizational conflicts of employees in Electronics sector, European-American group.

From the hypothesis testing, we found the following Chi-Square = 12.861, p-value = 0.076, RMR = 0.016, RMSEA = 0.060, GFI = 0.985, CMIN/DF = 1.837, and that the European-American group had direct inverse influence value of -0.352 or 35.20%, affecting conflicts as follows: Task (-0.286), Relationship (-0.314), Process (-0.314). Sangaha-vatthu 4 interpersonal relationship management could explain the reduction in Task conflicts (65.90%), Relationship conflicts (79.50%), and Process conflicts (79.20%), with the Significance level of 0.01.

Discussion

Hypothesis 1 - Different personal backgrounds affect Sangaha-vatthu 4 interpersonal relationship management in each aspect differently.

Table 3 Personal backgrounds effect on different aspect of Sangaha-vatthu 4 interpersonal relationship management

Sangaha-vatthu 4	Gender	Age	Education	Marital Status	Work Experience	Income
Asian Group						
Dhana	-	-	-	-	-	-
Piyavaca	-	-	-	-	-	-
Atthacariya	-	-	-	-	-	-
Samanattata	-	✓	-	-	-	-
European-American Group						
Dhana	-	✓	✓	-	✓	✓
Piyavaca	-	✓	✓	-	✓	✓
Atthacariya	✓	✓	-	-	✓	-
Samanattata	✓	✓	-	-	✓	-

From the study, we found that for the Asian group, the more senior employees had more degree of Samanattata, more likely to give equitable treatment and give advice or information, being adaptive to colleagues, knowing time and places, despite of the position and ranking in the organization, which coincided with the finding of Phanchan (2013) who found that people who used the Chao Phraya ferry services with different ages would have different level of interpersonal relationship management according to Sangaha-vatthu 4. This was also the same as the findings of Silawanno (2013) that employees of Mae Sariang Tambol Administration Office (Mae Hong Son Province) with different ages showed varying opinions regarding Sangaha-vatthu 4.

For the European-American group, we found that employees with different gender, age, education level, work experience, and income, would have different levels of interpersonal relationship management according to Sangaha-vatthu 4 in all aspects, similar to the findings of Wongamornakkaraphan (2013) who found that people with different gender, age, education level, and income would have different level of satisfaction for the usage of the service of Lawyers council of Thailand according to Sangaha-vatthu 4. However, this contradicted the findings of Thongarb (2013) that the personnel in the Office of Permanent Secretary, Department of Labor, Thailand, with different gender, age, education level, and work experience, showed indifferent opinions regarding the interpersonal relationship management according to Sangaha-vatthu 4.

Hypothesis 2 - Sangaha-vatthu 4 interpersonal relationship management would lead to the reduction of task, relationship, process conflicts of the employees in the Electronics sectors in Asian and European-American firms.

The study found that for the Asian group, Sangaha-vatthu 4 had direct influence to the organizational conflicts, with the path coefficient of -0.280 with the efficiency in explaining the variance of organizational conflicts at 7.80% at 0.01 Significant level. For the European-American group, Sangaha-vatthu 4 had direct influence to the organizational conflicts, with the path coefficient of -0.3520 with the efficiency in explaining the variance of organizational conflicts at 12.40% at 0.01 Significant level.

This indicated that the employees working in the European-American group had higher influence of using Sangaha-vatthu 4 to reduce organizational conflicts than those working in Asian firms. Despite the fact that Western corporate culture promoted leadership in each individual and stressed on the individualized team, the employees did receive equitable treatment and had freedom of expressions of their opinions.

By contrast, the Thai corporate culture gave the priority to seniority, no matter the day-to-day operations or way of living, sacrifices, sharing, or altruism were very common and people had good relationship with each other and more than willing to give help, people displaying amicable speech patterns and willing to help the colleagues or the organization to achieve the goals without needing any remuneration. People encouraged good moral and ethics in the organization, adapt to other colleagues and knew how to behave themselves.

The results also showed that both groups displayed high degree of Sangaha-vatthu 4 aspects and did not have frequent organizational conflicts. This suggested that they did use the Sangaha-vatthu 4 in their day-to-day operations, giving rise to good working conditions, unity, organizational citizenship, low organizational conflict level, coinciding with Jankingthong (2014) that the behaviors outside of their main duty was the critical change factor to allow for the keeping and improving the social and spiritual statuses of the organization, which helped smoothening the operational processes. Being a good Organizational Citizen would also help reduce task and relationship conflicts giving rise to better operational performances (Pyne, 2007). Podsakoff, et al., (2007) found that being good Organizational Citizen resulted from the positive interactions between the employees and other contextual factors, as when the employees realized that the firm exhibits Organizational Justice, and able to have the interaction with organization leader, colleagues, or top management. This coincided with the study of Jehn & Mannix (2001) that high work efficiency was related with the type of the organizational conflict. The high efficiency of the group might be explained by the low level of process and relationship conflict. However, such conflicts would rise as the deadline drew closer, while the task conflict would be at the moderate level. When the moderate group interaction happened, the members would perceive the similar level of conflict as they had high trust and respects towards one another and were opened for suggestions on how to solve the conflicts amongst them. Being the good Organization Citizen would create the right atmosphere for working, Organizational Justice, and trust, making the group members willing to give all their efforts for the positive exchange and final operating results, which would ultimately reduce organizational conflicts.

Suggestions

The Asian group had the least Atthacariya aspect of Sangaha-vatthu 4 or displaying the least altruism trait, therefore, it is advisable for the management to create the corporate culture that promote sacrifice and act of selflessness, by seeing the mutual interests before personal interests. They should also give praises for the employees who regularly helped others or volunteered to participate in company events, so that they would know that the company is acknowledging them for their good deeds and act as the role model for the company. The management should also promote equitable treatment across the organization, so that the employees would feel the organizational justice, and start to bond with the organization and perform beyond their normal assigned duties and be one of the good Organizational Citizen of the company.

For the European-American group, they displayed the lowest level of Piyavaca or the communication using amicable speeches or giving encouragements to their colleagues. The management should promote efficient communication and teach about choices of words and sincerity. They should promote greetings of each other in the morning or before they are leaving for home so the employees would feel friendlier towards one another. They should also promote the use of encouraging speeches or not using emotional responds or words that would hurt the feelings when the employees are at fault. If they were to praise the employee, they should do so openly so that the rest of the staff would acknowledge the desired behavior. On the other hand, if they were to scold the employee, they should do it so discretely so that they do not feel embarrassed and no one would be able to talk behind their backs or create other kinds of conflict, and take the advice of the management to improve themselves.

Suggestions for Future Research

1. Additional qualitative research could be used to better understand the context or other contextual factors influencing the reduction of organizational conflicts or add more open-ended questions to each organization.
2. Other factors directly affecting the organizational conflicts should be studied such as factors affecting operational results, job satisfaction, organizational equity, corporate culture etc.
3. Conduct similar study on other sector apart from the Electronics sector for comparison.

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ENTREPRENEURIAL CHARACTERISTICS FOR UNDERGRADUATE LIFE SCIENCE STUDENTS AT RANGSIT UNIVERSITY

TANAVUT WATCHANAPADIT

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Abstract

The objective of this research is to identify demographic factors such as gender, age, faculty, year of study, and monthly income, to determine the entrepreneurial characteristics of undergraduate students who major in health science curricula of Rangsit University and to verify the hypothesis that demographic background influences the entrepreneurial characteristics. The research samples were 400 internal security operations command officials. The questionnaires were used as the tool of data collection. The data was analyzed via descriptive statistic which are frequency, percentage, mean and standard deviation to describe and summarize overall data. Analysis of variance (ANOVA T-Test, F-Test) was used for study the difference between independent variables and dependent variable. Statistical significance was set at 0.05.

The results showed that most of the samples were female, the aged 20 years old, the majority of subjects were studying in faculty of Medical Technology, studying second year, Parents' occupation were private company employees and low income than 15,000 baht. Personal factor related with influencing the entrepreneurial characteristics of life science students at Rangsit university differentiated each other.

Introduction

In the present, there have been many new entrepreneur in Thailand with the increasing growth of number of entrepreneurs. Such trend might have been the result of social or economic change or the 'New Generation's' tendency of preferring to be self-employed or to own a private business over full-time jobs. The governmental projects such as funding or marketing channels also play parts in supports for new entrepreneurs SMEs (Small and Medium Enterprises). The entrepreneurs have freedom to own and run their business either on their own or with several owners. In the present, SMEs is one of the driving force in Thailand's economic growth.

It is observable that business startups are relatively easy nowadays. Many young people are aspired to be an entrepreneur and opt to study in a business school or business related faculties, which are available in almost every university in Thailand. Some university offers to interested people the entrepreneur courses ranging from bachelor to doctoral degrees which would provide them with qualities that suit with future entrepreneurs. In reality, however, not only people who graduate from business schools become entrepreneur or possess the right qualities of entrepreneurship. Many individuals still educating or have graduated from other fields desire to become entrepreneurs and many succeed with their business and enjoy

substantial income without much knowledge in business management. Some of those individuals opt to pursue higher education in business management whether in MBA (Master of Business Administration) or Master of Management in Entrepreneurship curriculum of Rangsit University, and more.

Regarding entrepreneurship, people graduated from science schools, especially health science, are often overlooked due to the subject's lack of connection with entrepreneurship. However, many people who graduate from science school have become entrepreneur in businesses that might or might not relate to their fields of study, such as businesses in pharmacy, medical tools, medical clinic, hospital, or other business they are interested in such as restaurants and spas. Many people whose major is health science pursue higher education in business management.

As a factor of success for business startups, the entrepreneur must possess certain positive traits, namely: diligence, dedication, determination, being unafraid of failure, management skill, innovation, systematic thinking, well defined planning and operation, openness to new technology, decisiveness, and responsibility.

Rangsit University is a private university-level institution that has provided health science curricula for over 30 years. There are currently 9 health science curricula available, namely: 1. Medicine School, 2. Faculty of Dentistry, 3. Faculty of Pharmacy, 4. School of Nursing, 5. Faculty of Medical Technology, 6. Faculty of Physical Therapy, 7. College of Oriental Medicine, 8. Faculty of Optometry, and 9. Faculty of Medical Science. All of these curricula have produced generations of graduates, many of which have resigned for their own businesses and become full-time entrepreneurs. Such individuals possess diverse knowledge, skills, characteristics and personal qualities. These are the factors which made me interested in studying the entrepreneurial characteristics of health science students currently studying in Rangsit University's health science curricula and to compare their entrepreneurial characteristics to the traits of successful entrepreneurs.

This research refers to the study on the Entrepreneurial characteristics of Undergraduate Students in Faculty of Business Management, Rangsit University (Sasiphen, 2011). This research focuses on the entrepreneurial characteristics of undergraduate students who major in the 9 health science related majors of Rangsit University by utilizing the demography analysis. This research aims to identify the entrepreneurial characteristics supporting the success of business in comparison to the cited study and other group of entrepreneurs' characteristics. The conclusion could be used to develop an effective Master of Management in Entrepreneurship curriculum for post-graduate health science students.

Research Objectives

1. To identify demographic factors such as gender, age, faculty, year of study, and monthly income.
2. To determine the entrepreneurial characteristics of undergraduate students who major in health science curricula of Rangsit University.
3. To verify the hypothesis that demographic background influences the entrepreneurial characteristics.

Research Hypotheses

Difference in demographic background results in different entrepreneurial characteristics of undergraduate students in health science curricula of Rangsit University. The characteristics include risk taking, innovativeness, ambitiousness, diligence, expertise, self-confidence, responsibility, and ability to seek opportunity in threat.

Scope of Study

Scope of Sampling

The sample comprises the undergraduate students who major in the 9 health science curricula of Rangsit University, namely: 1. Medicine School, 2. Faculty of Dentistry, 3. Faculty of Pharmacy, 4. School of Nursing, 5. Faculty of Medical Technology, 6. Faculty of Physical Therapy, 7. College of Oriental Medicine, 8. Faculty of Optometry, and 9. Faculty of Medical Science.

Scope of Content

The entrepreneurial characteristics include innovativeness, risk taking, expertise, ambitiousness, diligence, self-confidence, responsibility, and ability to seek opportunity in threat.

Research Methods

Sampling

The sample comprises random 400 individuals of undergraduate students who major in the 9 health science curricula of Rangsit University

Data Collection

Method used to collect data in this research includes:

Section 1 Subject's General Data

General and personal data of subjects expressed in close-ended checklist format. The general information of the subjects includes their genders, ages, and years into their courses, parents' occupations, and average monthly incomes: total of 6 questions.

Section 2

Data regarding entrepreneurial characteristics of undergraduate students in health science curricula of Rangsit University were collected in form of 'rating scale,' comprising 40 items in 8 total characteristics;

- Risk taking 5 questions.
- Innovativeness 5 questions.
- Ambitiousness 5 questions.
- Diligence 5 questions.
- Expertise 5 questions.
- Self-confidence 5 questions.
- Responsibility 5 questions.
- Ability to seek opportunity in threat 5 questions.

Result

From the sample size of 400 samples, the demographic categories are as following: the majority of subjects were female (256 people or 64.0%). Age-wise, the majority of subjects were 20 years old (100 people or 25%). Curriculum-wise, the majority of subjects were studying in faculty of Medical Technology (144 people or 36.0%). Study year-wise, the majority of subjects were studying in their second year (189 people or 47.3%). Parents' occupation-wise the majority of subjects' parents were private company employees (176 people or 44.0%). Income-wise, most of subjects earn less than 15,000 Baht (288 people or 72.0%).

Analysis of Demographic Influence over Entrepreneurial characteristics of Undergraduate Students in Health Science Curricula of Rangsit University.

The characteristics comprise innovativeness, risk taking, expertise, ambitiousness, diligence, self-confidence, responsibility, and ability to seek opportunity in threat. Independent variables include gender, age, educational level, status, occupation, and income. Data was collected by checklist and tested according to hypothesis number 1 to identify the influence of difference in demographic background over entrepreneurial characteristics of the subjects. The data was statistically analyzed with One Way Anova test with the significance threshold (Alpha) of 0.05. The finding is as following:

Gender: Difference in gender significantly correlates with innovativeness at the threshold of 0.05.

Age : Difference in age significantly correlates with risk taking, innovativeness, and self-confidence at the threshold of 0.05.

Faculty : Difference in enrolled faculty significantly correlates with risk taking, innovativeness, ambitiousness, diligence, and expertise at the threshold of 0.05.

Year of Study : Difference in year of study significantly correlates with risk taking, innovativeness, ambitiousness, diligence, expertise, self-confidence, and responsibility at the threshold of 0.05.

Parent's Occupation : Difference in parent's occupation significantly correlates with risk taking, innovativeness, ambitiousness, self-confidence, and responsibility at the threshold of 0.05.

Subject's Income : Difference in subject's income significantly correlates with risk taking, innovativeness, ambitiousness, expertise, self-confidence, and ability to seek opportunity in threat at the threshold of 0.05.

Discussion

A conclusion could be drawn that demographic background has significant influences over entrepreneurial characteristics of health science students of Rangsit University, namely: in risk taking, innovativeness, ambitiousness, diligence, expertise, self-confidence, responsibility, and ability to seek opportunity in threat. The result could be described in relevance to the hypothesis as following:

Demographic factors of age, faculty, year of study, parent's occupation, and student's income have significant influences over the characteristics of risk taking. The risk-taking characteristic is an entrepreneurial quality which aids in the decision to initiate actions and leads to more opportunities toward success. This finding correlates with research of Chuchai Smithikrai (2005) regarding the entrepreneurial potential of Thai undergraduate students which found that risk-taking characteristic is one of the supporting factors.

Demographic factors of gender, age, faculty, year of study, parent's occupation, and student's income have significant influences over the characteristics of innovativeness, which leads to development and improvement of work. This finding correlates with research of Reywat Chatriwisit (1994) that defined innovativeness as the conception of development and improvement, which in turn become the driving force to the process of work and the results themselves. Innovativeness might originate from taking good things and further develop them by correcting the bad parts or the curiosity, novelty of thoughts, and constant seeking of advancement in methods.

Demographic factors of faculty, year of study, parent's occupation, and student's income have significant influences over the characteristics of ambitiousness. According to the theory of Katanyu Hirunyasomboon (2004), ambitiousness is a crucial driving force for an entrepreneur. Ambitiousness was defined as the aspiration to succeed and to earn profit from one's investment and labor. Aspiration to succeed in life as a force that can drive entrepreneurs to work to achieve their goals differs from typical people's aspiration. Ambitious entrepreneurs also possess the will to endure hardships they come across.

Demographic factors of faculty and year of study have significant influences over the characteristics of diligence. Diligence also leads to work progression. Jaroon Thongthaworn (1993) defined diligence as the tenaciousness in meeting one's task and responsibility and resistance to laziness, which would adversely affect the image and other people's perception.

Demographic factors of faculty, year of study, and student's income have significant influences over the characteristics of expertise. Expertise aids in success and good result of work. Katanyu Hirunyasomboon (2004) defined expertise as the quality of being capable both in technical and managerial aspects. Starting up a business requires the owner's labor. Thus, the technical expertise can help saving costs on labor and managerial expertise can help the business overcome hurdles and grow.

Demographic factors of age and year of study have significant influences over the quality of self-confidence. This characteristics is crucial to entrepreneurs. According to a theory of Amnart Theerawanich (2001:7), self-confidence is defined as the feeling that one is up against the challenge. Successful entrepreneurs tend to be self-confident and to believe that one could overcome the risk or problem. Self-confident and successful entrepreneurs tend to be realistic optimists about their chance at success.

Demographic factors of year of study and parent's occupation have significant influences over the characteristics of responsibility. Responsibility accompanies seriousness and work discipline. According to a theory of Katanyu Hirunyasomboon (2004), seriousness and work discipline were defined as constant effort, diligence, and good conduct as a role model for other workers.

Finally, student's income has significant influences over the characteristics of ability to seek opportunity in threat. Such characteristic is crucial because turning a threat into an opportunity leads to success in business. According to a theory of Katanyu Hirunyasomboon (2004), the ability to seek opportunity in threat is defined as a characteristic of good entrepreneurs that leads to the beginning of new things and putting changes to good use.

Suggestions

Suggestion from this Research

This research helps in defining the entrepreneurial characteristics of undergraduate students enrolled in health science majors of Rangsit University, which shall prove highly beneficial to preparation of Master of Management in Entrepreneurship Program curriculum. Here are the suggestion derived:

1. The course should be programmed in accordance to the characteristics of health science graduates.
2. The course should be programmed in accordance to the demographic factors of the students.

Suggestion for Future Research

1. Studies regarding the drive of health science students in becoming entrepreneurs.
2. Studies regarding the influential entrepreneurial characteristics which lead health science students to success.

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COMPARISON MARKETING MIX FACTORS BETWEEN GOVERNMENT HOSPITAL AND PRIVATE HOSPITAL

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Abstract

The objective of this research is to study demographic factors of the people who choose government hospital and private hospital with marketing mix factors (7Ps) and to study trends of patient opinions with marketing mix factors (7Ps) of government and private hospital in Bangkok and in vicinity. The research samples were 400 internal security operations command officials. The questionnaires were used as the tool of data collection. The data was analyzed via descriptive statistic which are frequency, percentage, mean and standard deviation to describe and summarize overall data. Analysis of variance (ANOVA T-Test, F-Test) was used for study the difference between independent variables and dependent variable. Statistical significance was set at 0.05.

The results showed that most of the samples of government and private hospital were female, the aged 20-29 years old, education in undergraduate, single, occupation as a student and low income than 15,000 baht. Personal factor related with influencing the marketing mix factors (7Ps) of consumers in Bangkok and in vicinity and trends of patient opinions related with influencing the marketing mix factors (7Ps) of government and private hospital.

Introduction

As the population increases each day, the birthrate, ailing rate, and number aging population dues to follow. This leads to the increasing in future usage of hospital each day where hospitals available currently can sufficiently support such growing, and to topple that there is the increasing number of hospital in the area where public health is still lacking; both as private or government hospital, result in most of the people gain easier access to government and private hospital. As such, the people of each area often choose to see the hospital which is close to their residence, or choose the hospital based on the rate they can afford. The service of government and private hospital is different, whether in regard to costs, benefits, and other services.

There are many government Hospitals and in most of the Province of Thailand. These hospital see a very high volume of patient each day. There are specialist medical practitioner for each disease and offer many benefits that the government provide such as “30 Baht cure all disease program”, social security, disabled benefits, national health security, etc. These benefits help people in term of cost of health care which could be staggering in fatal disease. On the other hand, the drawback of the government hospital is that they receive high volume of patient

which leads to slowness of service and shortcoming of medical staff; doctor, nurse, pharmacist, technician.

Whereas in private hospital, private hospital is a hospital with current high growth rate and start to offer equal benefit as those of the government such as social security and national health security. Over more, the number of specialist practitioners is on the rise. This leads to many private hospitals today having more programs which help subsidize the cost for the patient, and also with adequate number medical staff available which in turn leads to faster assistance for the patients. However, the cost of seeing private hospital is very high; both from the cost of service of the doctor and treatment. The populations of middle to low income often avoid using private hospital service.

From the above information given, it is observed that most people does not take into consideration only single factor to decide which of the private or government hospital they would go to, but take into consideration multiple factors such as costs, benefits, quickness of service, location, and ease of access.

The quality of service between government and private hospital available is particularly different in current condition. For example, the quickness of service of private hospital is paramounting over that of government hospital, but the cost is also particularly higher as much, or the location of the lobby where patients wait to meet the doctor of the private hospital is significantly seems cleaner and less occupied than the government one, or the number of patients which choose to see private hospital is significantly lower. These attributes are therefore important and signify clear difference between government and private hospital.

On the other hand, both government and private hospital have been improving their service to be equal; government hospital tries to provide quicker service, construct new space and new parking lots which is a key downfall of the government hospital which often found lacking in number of parking space to the number of patients, where the private hospital tries to improve their benefit provided to help patients subsidize their costs and employing more specialists.

As mentioned above, the difference between services of both types of hospital is clear, whereas the factors which patients took into consideration whether to choose which hospital is also multiple. As such, the researcher takes keen interest to study the compare marketing mix factors between government hospital and private hospital.

Research Objectives

1. To study demographic factors of the people who choose government hospital and private hospital with marketing mix factors which consists product, price, place, promotion, people, physical evidence and process.
2. To study trends of patient opinions with marketing mix factors which consists products, price, place, promotion, people, physical evidence and process of government and private hospital.

Research Hypothesis

1. Demographic factors such as sex, age, education level, income are related to marketing mix factors which consists products, price, place, promotion, people, physical evidence and process which are different.
2. Trends of patient opinions are related to marketing mix factors which consists products, price, place, promotion, people, physical evidence and process of government hospital and private hospital.

Delimitation

Demographic Limitation

Demographic group of this research is consumers in Bangkok and Bangkok Metropolitan Region.

Content Delimitation

Compare marketing mix factors between government hospital and private hospital of consumers in Bangkok and Bangkok Metropolitan Region.

Research Methodology

Demography

Demographic group of this research is consumers in Bangkok and Bangkok Metropolitan Region by sample of 400 people.

Research Tools

The tools used to collect data of this research are such as;

First part: General Information of the Surveyed Group

On demography, this research use close-ended question with checklist which are general information of the individual such as sex, age, education level, marital status, occupation, and income totaling 6 questions, and ask preference between choosing government or private hospital.

Second part: Marketing mix factors

Ask about Marketing mix factors which influence patients' decision to choose whether government or private hospital for demographic group that lives in Bangkok and Bangkok Metropolitan Region. The questions are close-ended questions with 11 rating scale of 7 groups of questions and 35 sub questions as follow;

- Factors regarding products or service 5 questions
- Factors regarding costs 5 questions
- Factors regarding distribution channel or location 5 questions
- Factors regarding marketing promotion 5 questions
- Factors regarding staff or personnel 5 questions
- Factors regarding production of physical evidence and presentation 5 questions
- Factors regarding methodology 5 questions

Result of data analysis

From the 400 samples, 200 are put into government hospital group and the other 200 is private hospital group, the demographic result shows as;

Most of the samples of government hospital patients are female, 107 samples, or 53.5%. On age range, most of the group is in the range age of 20-29 years old, 105 samples, or 52.5%. On education level, most of the group's education level is bachelor degree, 167 samples, or 83.5%. On marital status, most of the samples are single, 193 samples, or 96.5%. On occupation, most of the group is undergraduate students, 164 samples, or 82%. On income, most of the group earns less than 15,000 baht, 151 samples, or 75.5%.

Most of the samples of private hospital patients are female, 111 samples, or 55.5%. On age range, most of the group is in the range age of 20-29 years old, 114 samples, or 57%. On education level, most of the group's education level is bachelor degree, 154 samples, or 77%. On marital status, most of the samples are single, 196

samples, or 98%. On occupation, most of the group is undergraduate students, 156 samples, or 78%. On income, most of the group earns less than 15,000 baht, 104 samples, or 52%.

On demographic factor that related with marketing mix factors which consists products, price, place, promotion, people, physical evidence and process of government and private hospital of the group who lives in Bangkok and Bangkok Metropolitan Region which independent variables consists sex, age, education level, marital status, occupation and income, through checklist data collection and test the 1st hypothesis to find the difference between demographic factors that related with marketing mix factors of government or private hospital of the group who lives in Bangkok and Bangkok Metropolitan Region through 'One Way Anova' data analysis, where the 'Alpha' is set at 0.05. The analysis produced that;

Sex: the difference in regard to sex is related to marketing mix factor in term of promotion and people of government hospital with statistical significant at 0.05 but the difference between male and female shows no relation to marketing mix factors in term of product, price, place, physical evidence, and process of the government hospital.

Over more, the difference between male and female is related to marketing mix factors in term of price, place, people, physical evidence, and process of the private hospital with statistical significant of 0.05. But, the difference between male and female shows no relation with marketing mix factors in term of product, promotion of the private hospital.

Both data shows the difference between male and female of government and private hospital are related to marketing mix factors in term of people with statistical significant of 0.05

Age: the difference in age range relates to marketing mix factors in term of product, price, place, promotion and people of the government hospital at the statistical significant of 0.05. But, the difference in age range shows no relation to marketing mix factors in term of production of physical evidence and process of the government hospital.

The difference in age range relates to marketing mix factors in term of price, promotion, people, physical evidence and process of the private hospital with statistical significant of 0.05. But, the difference in age range shows no relation to marketing mix factors in term of product and place of the private hospital.

Both data shows the difference between male and female of government and private hospital are related to marketing mix factors in term of price, promotion and people with statistical significant of 0.05

Education level: the difference in education level relates to marketing mix factors in term of product, price, place, promotion, people and physical evidence of the government hospital at the statistical significant of 0.05. But, the difference in education level shows no relation to marketing mix factors in term of process of the government hospital.

The difference in education level relates to marketing mix factors in term of product and place of the private hospital with statistical significant of 0.05. But, the difference in education level shows no relation to marketing mix factors in term of price, promotion, people, physical evidence and process of the private hospital.

Both data shows the difference between male and female of government and private hospital are related to marketing mix factors in term of product and place with statistical significant of 0.05

Marital status: the difference in marital status relates to marketing mix factors in term of product, place and promotion of the government hospital with statistical significant of 0.05. But, the difference in marital status shows no relation to marketing mix factors in term of price, people, physical evidence and process of the government hospital.

The difference in marital status relates to marketing mix factors in term of production of physical evidence of the private hospital with statistical significant of 0.05. But, the difference in marital status shows no relation to marketing mix factors in term of product, price, place, promotion, people and process of the private hospital.

Both data shows the difference between male and female of government and private hospital no related to marketing mix factors in any term.

Occupation: the difference in occupation relates to marketing mix factors in term of product, price, place, promotion, people and process of the government hospital with statistical significant of 0.05. But, the difference in occupation shows no relation to marketing mix factors in term of physical evidence of the government hospital.

The difference in occupation relates to marketing mix factors in term of product, place, physical evidence and process of the private hospital with statistical significant of 0.05. But, the difference in occupation shows no relation to marketing mix factors in term of price, promotion and people of the private hospital.

Both data shows the difference between male and female of government and private hospital are related to marketing mix factors in term of product place and process with statistical significant of 0.05

Income: the difference in income relates to marketing mix factors in term of product, price, place, promotion, people and process of the government hospital at the statistical significant of 0.05. But, the difference in income shows no relation to marketing mix factors in term of physical evidence of the government hospital.

The difference in income relates to marketing mix factors in term of product, place, people, physical evidence and process with statistical significant of 0.05. But, the difference in income shows no relation to marketing mix factors in term of price and promotion of the private hospital.

Both data shows the difference between male and female of government and private hospital are related to marketing mix factors in term of product place people and process with statistical significant of 0.05

For study trends of patient opinions by comparison of marketing mix factors (7Ps) between government hospital and private hospital of the consumer in Bangkok and Bangkok Metropolitan Region is accomplished through testing of research hypothesis on the second hypothesis to analyze marketing mix factors (7Ps) which consists products, price, place, promotion, people, physical evidence and process. The researcher has presented the result of the analysis through One Way Anova method where Alpha is set at 0.05. The study found that when comparing marketing mix factors which relates to decision of choosing between government hospital and private hospital, the difference between factor of place and physical evidence of both government hospital and private hospital shows statistical significant differences at 0.05.

But, the marketing mix factors in term of product, price, promotion, people, and process between both government hospital and private hospital shows no statistical differences.

But, Researcher compare of 2 sample groups (sample groups of government and private hospital) for study trends of patient opinions about marketing mix factors.

The Data shows trends of patient opinions about marketing mix factors who choosing government hospital is price that be first for decision. In private hospital the trends of patient opinions about marketing mix factors is physical evidence.

Discussion

From research, it can be concluded that there are two out of all marketing mix factors (7Ps) which consists products, price, place, promotion, people, physical evidence and process of government and private hospital that shows statistical difference. The discussion drawn from hypothesis could be made as such.

Government hospital and private hospital in Bangkok and Bangkok Metropolitan Region shows difference in terms of marketing mix factors in regard to place with statistical significant of 0.05. From the research, it shows that the mean of government hospital is higher than that of the private hospital. This means that most patients choosing government hospital is a result of having location of the hospital near their residence. Patients can travel to hospital with ease, and from multiple accesses. Therefore, the marketing mix factor of place is an important factor that influences the decision in choosing government hospital of the consumer in Bangkok and Bangkok Metropolitan Region. Such results conform and coincide the thesis of Siriwan Serirat, Prin Laksittanon, and Suporn Serirat (B.E. 2541) which referred to marketing mix factors in regard to distribution channel and location (place) that place and location of service business is very important, especially the business that consumers need to receive the service of the service provider in the place that the service provider has arranged, because the location determine the group of consumer that will engage the service. Therefore, the place and location of service must cover the target group as much as possible, and must take into consideration the location of competitor, whereby the importance of location will be more or lesser than one another depend on the nature of business. In regard to channel, setting of distribution channel must take 3 parts into consideration such are; type of service, needs of middleman for distribution, and customer. The goal of service business, as shown in this research, is clearly shown that the influence in decision choosing government hospital results from patients choosing the hospital that locate near their residence; that they can travel to with ease including in the emergency case.

Government hospital and private hospital of customer in Bangkok and Bangkok Metropolitan Region shows difference in marketing mix factors of physical evidence with statistical significant of 0.05. The research shows that the mean of government hospital is lower private hospital in this regard. This means that most patient decide to choose private hospital base on the factor that private hospital shows good physical quality or presentation such as having adequate parking space, cleaner lavatory, appropriate and attractive interior decoration. Therefore, the marketing mix factor of physical evidence is important factor influencing the customer decision to choose private hospital in Bangkok and Bangkok Metropolitan Region. This result conform and coincide with the thesis of Siriwan Serirat, Prin Laksittanon, and Suporn Serirat (B.E. 2541) which refer to marketing mix factors in term of production of physical evidence and presentation that it must be the factor that improve (Total Quality Management: TQM)or reflect overall quality of service through physical evidence such as Movie business must improve physical space and service to create value for customer (Customer-Value Proposition)whether it be cleanliness, quickness of purchasing. In this research, the evidence which patient could see is such as the orderly of the hospital, attractive environment, and cleanliness.

Suggestions

For Government Hospital

This research predicts one marketing mix factors which influence decision of patients choosing government hospital in Bangkok and Bangkok Metropolitan Region which is physical evidence of the government hospital, which should be improved in terms of location, parking space to sufficiently support numbers of patients, cleanliness and orderliness of the physical space, enough seats in the lobby where patients wait to see doctor, clean and sanitized lavatory.

For private Hospital

This research predicts one marketing mix factors which influence decision of patients choosing private hospital in Bangkok and Bangkok Metropolitan Region which is place. Private hospital should take into consideration location choosing that covers the community or close to the residence of patients, that patients can travel to with ease, or setting up hospital network in the community to reach more patients.

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LEVELS OF UNDERSTANDING OF SMALL AND MEDIUM ENTREPRENEURS AFFECTING THE LEVELS OF READINESS TOWARD ASEAN ECONOMIC COMMUNITY

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Abstract

This study aimed to (1) investigate the levels of understanding of small and medium entrepreneurs toward ASEAN Economic Community; (2) explore the levels of readiness of small and medium entrepreneurs toward ASEAN Economic Community and (3) compare the levels of understanding of small and medium entrepreneurs affecting the levels of readiness toward ASEAN Economic Community. Questionnaires were applied to collect data from 300 small and medium entrepreneurs in Bangkok. The sample was divided into 3 groups. Each group consisted of 100 entrepreneurs including (1) manufacturing sector; (2) service sector and (3) wholesale and retail sector. The statistics used in the study included frequency, percentage, mean and One-way analysis of variance.

The results showed that the level of understanding of small and medium entrepreneurs toward ASEAN Economic Community was at a high level or 3.41. The level of readiness of small and medium entrepreneurs toward ASEAN Community was at a moderate level or 2.97. According to the hypothesis testing, there is no statistically significance between levels of understanding and levels of readiness of small and medium entrepreneurs toward ASEAN Economic Community.

KEYWORDS : AEC, Small and Medium Entrepreneurs, Readiness

Introduction

ASEAN Economics Community (AEC) is an integration of 10 ASEAN countries comprising of Thailand, Myanmar, Laos, Vietnam, Malaysia, Singapore, Indonesia, Philippines, Cambodia and Brunei in order to share economic benefits. The integration is similar to Euro Zone which has greater benefits and more powerful negotiation with business partners. The AEC blueprint includes 4 elements (1) Single market and product base; (2) Competitive economic region; (3) Equitable competitive development and (4) Integration into the global economy (<http://www.thai-aec.com>).

Thailand is one of five founding member states that established and initiated ASEAN. Thailand has played significant role in ASEAN activities and driven ASEAN to start various joint projects to suite the current and international situations. These include ASEAN Free Trade Area, ASEAN Political and Security Community in Asia-Pacific Region and Southeast Asian Nuclear-Weapon-Free Zone Treaty. ASEAN is essential to Thailand as it not only establishes alliance, unity, stability and peace in the region but also increases bargaining power in international level, corporates in solving international problems and develops basic facilities solidly. In addition, economic and industrial cooperation in ASEAN brings about substantial trade and investment expansion in Thailand contributing great benefits to Thai and ASEAN economy (<http://www.kan1.go.th>).

Small and medium enterprises refer to independent businesses privately owned and run by the owners themselves, not being a tool of any businesses and is not influenced by other people or businesses with low operating cost and small number of employees. Small and medium enterprises are essential to Thai economy in different aspects including;

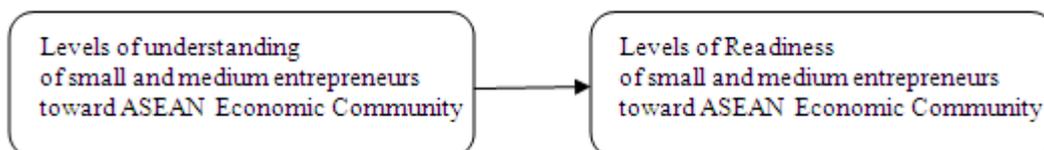
- 1) generating employment;
- 2) being a starting point for interested investors as new entrepreneurs because small and medium enterprises require low operating cost and lower risk comparing to investment in large industry;
- 3) providing occupations for labors which they can practice from actual experience;
- 4) creating connection to large operations or other relevant businesses;
- 5) adding values to materials in the country because it is an industry mainly based on domestic resources;
- 6) generating income for the country especially in manufacturing for export sector and tourism sector; and
- 7) preventing monopoly in economic system because small and medium enterprises promote competitiveness and fair competition in business operations bringing about economic efficiency (Office of Small and Medium Enterprises Promotion; 2007).

ASEAN integrated into ASEAN Economic Community and became effective since 31 December 2015. In order to develop competitive capacity of small and medium enterprises of Thailand against the countries in ASEAN Economic Community which affects Thai economy, the researcher finds it important to investigate the levels of understanding of small and medium entrepreneurs affecting the readiness toward ASEAN Economic Community.

Objectives of the study

- To investigate the levels of understanding of small and medium entrepreneurs toward ASEAN Economic Community
- To explore the levels of readiness of small and medium entrepreneurs toward ASEAN Economic Community
- To compare the levels of understanding of small and medium entrepreneurs affecting the readiness toward ASEAN Economic Community

Research Framework



Research hypothesis

Different levels of understanding of small and medium entrepreneurs toward ASEAN Economic Community yielded different levels of the readiness of small and medium entrepreneurs toward ASEAN Economic Community.

Research methodology

- **The sample**

- The sample consisted of 300 small and medium entrepreneurs in Bangkok. The sample was divided into 3 groups. Each group consisted of 100 entrepreneurs including; (1) manufacturing sector; (2) service sector and; (3) wholesale and retail sector. The statistics used in the study included frequency, percentage, mean and One-way analysis of variance.
- The researcher applied Non-Probability Sample using Quota Sampling technique and Purposive Sampling technique to select 3 groups of the sample. The researcher defined the criteria to select the sample based on the objectives of the study.
- **Research instruments**

The research instruments were questionnaires constructed by the researcher according to the research objectives and framework. The questionnaires consisted of 3 sections as follows.

Section 1 Demographic information including gender, age, education and amount of time in operating businesses

Section 2 Understanding of small and medium entrepreneurs toward ASEAN Economic Community

Section 3 Readiness of small and medium entrepreneurs toward ASEAN Economic Community
- **Data analysis**
 - Demographic data including gender, age, education and amount of time in operating businesses was analyzed by frequency and percentage.
 - Data on understanding and readiness of small and medium entrepreneurs toward ASEAN Economic Community was analyzed by mean to identify the levels of understanding and readiness of small and medium entrepreneurs toward ASEAN Economic Community.
 - Hypothesis testing, comparison of the levels of understanding of small and medium entrepreneurs affecting the readiness toward ASEAN Economic Community was analyzed by One-way analysis of variance.

Results of data analysis

- **Demographic data**

According to the study, a majority of the sample was females consisting of 157 women (52.33 percent), 125 persons were 30–39 years old (41.67 percent), 162 persons graduated bachelor's degrees (54 percent) and 86 persons had been operating business between 6–10 years (28.67 percent).

- **Levels of understanding of small and medium entrepreneurs toward ASEAN Economic Community**

According to the study, the level of understanding of small and medium entrepreneurs toward ASEAN Economic Community was at a high level or 3.41. The averages could be ranked as follows (1) AEC provides the most convenience and freedom in travelling across ASEAN region (3.59); (2) You know that there are 10 member states in ASEAN (3.55); (3) AEC was established to promote economic, social and cultural development within the region (3.41); (4) AEC was established to maintain economic stability and security across the region (3.50); (6) You know that ASEAN will be integrated into ASEAN Economic Community in 2015 (3.49); (7) You have understanding about "ASEAN" (3.41); (8) AEC allows consumers to select a wide range of products/services across ASEAN region (3.40); (9) AEC offers

cooperative development leading to joint market and production base (3.39); (10) AEC is a significant core pillar driving toward an integration of ASEAN economy (3.37); (11) You have understanding about “ASEAN Community” (3.33); (12) AEC was established to develop Small and Medium Enterprise: SMEs (3.33); (13) You have understanding about “ASEAN Economic Community or AEC” (3.31); (14) AEC was established so as to solve problems across the region (3.25) and (15) An integration of AEC is important to your business operation (3.23).

- **Levels of readiness of small and medium entrepreneurs toward ASEAN Economic Community**

According to the study, the level of readiness of small and medium entrepreneurs toward ASEAN Economic Community was at a moderate level (2.97). The averages could be ranked as follows (1) You follow news and update about ASEAN Economic Community or AEC (3.25); (2) You have studied social and cultural aspects of the countries about international business operation (3.13); (3) You think that the government provides sufficient support for small and medium enterprises (3.11); (4) The government sector provides sufficient information, knowledge and news about AEC (3.08); (5) You have sharing information about international business operation with domestic entrepreneurs (3.08); (6) You create motivation and positive attitude for yourselves and employees in order to have business cooperation (3.08); (7) If AEC is founded, you are ready for it (3.06); (8) You have studied legal matter about international business operation (3.06); (9) You receive sufficient information about AEC for business operation (3.25); (10) You have studied, investigated or explored additional information about AEC (2.98); (11) You have studied about intellectual property protection in order to protect your intellectual property (2.94); (12) You have further studied about official language (English) as it is used as a medium language in communicating with bordering countries or foreigners (2.92); (13) You have studied, investigated or explored additional information about international business operation (2.88); (14) You have ever contacted with foreigners across ASEAN region or outside the region in order to operate businesses (2.85) and; (15) You have developed your products or services to meet the standards which could be imported to other countries if AEC is founded (2.83).

- **Hypothesis testing**

The different levels of understanding of small and medium entrepreneurs toward ASEAN Economic Community did not yield any differences in the levels of readiness of small and medium entrepreneurs toward ASEAN Economic Community.

Conclusions

The results showed that the level of understanding of small and medium entrepreneurs toward ASEAN Economic Community was at a high level or 3.41. The level of readiness of small and medium entrepreneurs toward ASEAN Community was at a moderate level or 2.97. According to the hypothesis testing, there is no statistically significance between levels of understanding and levels of readiness of small and medium entrepreneurs toward ASEAN Economic Community.

Biography

Nakamol Chansom is Director of Master of Management Program in Entrepreneurship at Faculty of Business Administration, Rangsit University, Thailand. Her research is concerned with Entrepreneurship and Management. Her teaching experiences are in the subject of Business Plan, Entrepreneurship and Human Behavior.

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CURRENT ISSUES IN GREEN LOGISTICS MANAGEMENT

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Abstract

In this research , a case study on the current issues in Green Logistics has been done. The purpose of this paper is to increase the understanding of the challenges and conflicts in Green Logistics management through empirical evidence from the heavy-vehicle industry.

Keywords: Greenness, Logistics, Green Logistics

Introduction

As the world is going through climate changes and crisis with war and starving, organizations all over the world have started to realize that they need to do something. Even though no one can do everything, everyone can do something. As an organization you have a big responsibility in the way you affect the surroundings. We think that, especially from the environmental point of view, the organizations around the world are trying to show people that they want to make a change. It is very important to a lot of people that the product or favours they buy are sustainable. Therefore the companies are adapting to the markets demands.

Money is a motivation for sustainability as well. The relation between the supplier and organization can earn up a lot of money if they choose to work with each other in the long-term. They build up a great deal of trust and can work in a more effective way.

In order to move products through the supply chain Green logistics is an integrated management when doing so. This supply chain extends from a raw material source towards an end product. Nowadays it has become more important to work towards sustainability to overcome the current issues that green logistics might face. (Head, 2010)

When striving towards a sustainable supply chain into an industrial organization there are a number of factors that affects the decisions regarding the organization. Main

focus is often about the three pillars where social sustainability, economic sustainability and environmental sustainability are considered.

Decisions concerning the social pillar look different from the decisions regarding the economical pillar although there is important to understand that all of the three pillars coexist. (Claudia, 2015)

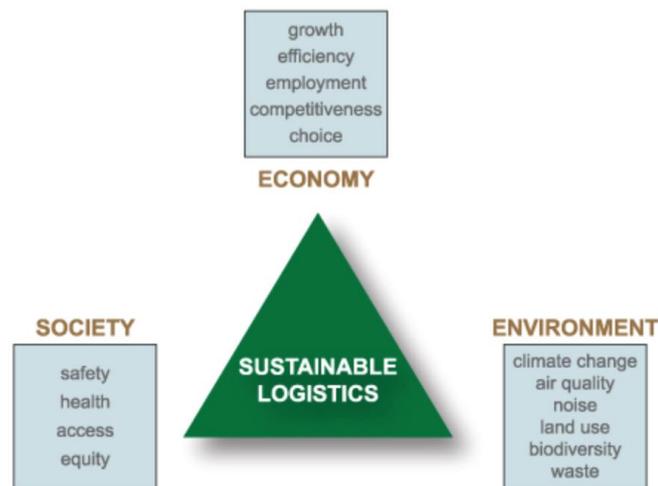
Purpose

The purpose of this assignment is to enlighten the valuable issues of today's green logistics. The main focus is to present concerned challenges and what improvement factors might be in the near future.

Theory

Nowadays, it is very important and necessary to reform the logistics system from an environmental point of view when it comes to the development of the logistics.

The green logistics, or even called sustainable logistics, is all about three main things. It is the economy, the environment and the society. All of them are connected in one way or another.



The purpose of logistics is to reduce costs, in particular transport costs. In some cases, the cost saving strategies pursued by logistic operators can be at variety with environmental considerations that become externalized. Sometimes a half-full truck has to leave from the warehouse and the goods inside it has to be carried a lot of unnecessary miles. That is bad for the environment and it is only happening because it is expensive for the delivery to be delayed. And it is the society who will bear the consequences. All three pillars are like a big connected circle.

It is absolutely fundamental to build a logistic systems that keep up in progress in order to prevent the logistics from causing damage to the environment. It can enhance the healthy development of consumption cycle and economy, namely transformation into green logistics.

(<http://ieeexplore.ieee.org>, 2011)

In sustainable transportation there is a focus on passenger and the freight issues is somewhat leaving extremely rare as an influencing factor.

A code word for a wide range of environmental concerns is greenness. The word is ordinarily considered positively. It is frequent in the environmental context and also common in the way while talking about logistics. Greenness became a catchword in the transportation industry in common with many other areas of human endeavour.

(Rodrigue, Slack, & Comtois)

The heart of an operation in the new modern transport system and the most important developments in the transportation industry are the logistics. It implies the total control over freight movements and a degree of organization that only modern technology could have brought into being. (Rodrigue, Slack, & Comtois)

When putting the two words together to Green Logistics mean that it is an environmentally friendly and efficient transport and distribution system. Practices and strategies in the supply chain management are to reduce the energy and environmental footprint of freight and distribution. The most focus is on waste management, packing, transporting and material handling. This implies that many different stakeholders could be applying different strategies. The only requirement is to be classed as green or sustainable logistics. One corporation could be focusing on fuel vehicles while another could be focusing on product packing. Both of them are undertaking green logistics. (Rodrigue, Slack, & Comtois)

The truly entails in green logistics is if assets such as vehicles, terminals and distribution centers better utilized, and transportation costs are reduced the assumption is that green logistics strategies are being implemented.

When the fast growth of trucking impacted urban communities in the 1950's it grew out the emerging awareness of environmental problems and negative externalities. Factors like the size of the truck, noise, emissions became public concerns. It is leading to the first legislations focusing on pollutant and noise emissions and road access conditions.

(Rodrigue, Slack, & Comtois)

Current issues of the topic

Today there are many companies that strive towards working with green logistics. However there are a number of factors that might be concerning in order to achieve this, below are some of them;

- When working from a sustainable point of view you have to make sure that the organization in charge are prepared for the changes that comes with it. Sustainability means you have to adapt to the on-going developing markets to be competitive. If you have a management that aren't mature for these changes you will be rather restraint. This will affect all of the decisions that the organization is about to take and it will also affect the outcome. If the market demands something that the management does not agree with you have lost a part of a market share.
- As an organization you have an on-going responsibility in which the impact of the surroundings lies in your hands. Green Logistics means that you are well aware of

the negative impact your company has on the environment and therefore the focus lies upon the responsibility to reduce as much of this negative impact as possible. One example of this kind of challenge is the transportation of goods between the supplier and warehouse, warehouse and external countries, and in fact during the overall supply chain.

- The economical issues that companies have to face promote how to use your available resources to gain profit and providing long-term benefits for your business (Alayon, 2015). Economic sustainability is to create a balanced economic growth without tearing the natural resources or human effort. It is important to return capital of investment to the shareholders. Some shareholders have invested a lot in your company and to be able to return, it is important that the company has visions and goals how to gain profit. With consideration to the example before the economical challenge often affect social sustainability. If you have to change something in the company due to economical problems, like dismissing an employer, it could lead to new problems that will be harder to solve. That is why it makes it easier if you have a long-term vision in the company together with the shareholders.

- Budget is also a kind of hindrance for a SME (small medium enterprise). When the organization is small or medium sized you do not have unlimited with money which might restrict the company slightly. There is no room for unnecessary investments; the ones that happen the company are depending on. This leaves very little room for courageous decisions. It is therefore important that the organization attracts investors.

- It is important to strive for awareness regarding how people appreciate their employment and living standards such as health and safety at work. Companies that work with challenges due to employers and encourage them in the growth of the company are often increasing activity. Without the employers satisfaction it will be hard to reach the vision. They are the most important tool in the company and have so many different perspectives the companies what of treating them. For example if you working with change management and the conclusion is that you have to dismiss employer. Every decision that you will make is going to affect the social sustainability at your company. In some cases they will not be as easy the next time you want to work with change management because they thinking that it probably will affect them.

- Another factor that numerous of companies might struggle with is the different aspects of waste;

- Overproduction: The fact that companies might produce in greater quantities than costumers demand.

- Transportation: Includes all the unnecessary movements between processes, locations, and internal transportations.

- Motions: Includes all the unnecessary movements within processes.

- Rework: Correction or repetition of a process.

Results and conclusion

In order to process the oncoming changes, one suitable way of dealing with this might be for the management to implement a strategic way of change management. In this way the organization might struggle with the adaptation of the future changes as well as involving the staff and employees in order to make everyone equipped.

As far as the responsibility that the company possesses one efficient way is to implement different ISO-certifications. Thus the company directly works according to strict guidelines, which regards different aspects of regulations required to maintain the sustainability. For example:

ISO14001 – Environmental management

ISO26000 – Social responsibility

ISO9001 – Quality management

Further on, education might be a suitable solution due to gathering knowledge in the negative environmental impact that your company possesses.

Companies that struggles with their performance in the efficiency of transport should investigate whether a possible outsource solution would be in favour. This way the companies can focus on other parts of the organization where they are more competitive while the outsourced part are done by another part that can provide higher efficiency. The party that provides the outsourced assistant will probably use milk rounds that provides better transportation answers which further on affect the environmental and economical sustainability in the company.

To prevent the possible wastes throughout the supply chain, different types of measurement can be useful in order to control and manage these kinds of obstacles. Some examples of measurement are forecasting to understand the markets demands and requirements. This way the organization avoids overproduction.

To overcome unnecessary wastes of movement within processes it is important to update the current wastefulness with continuous improvements.

The processes in the supply chain are reliant of each other therefor it is of great value to understand the processes. The important part of this is to label the pretentious bottleneck and adapt the rest of the process towards it.

Continuous quality measurements are one way of controlling the outcome and prevent redoing the work.

We think that in the nearest future all the established and most prominent organizations need to concentrate in green logistics in order to contribute to the sustainability of our planet.

Costumers are more aware of how the products have been made and especially how the environment has been affected. Because of this companies have to strive to manage the costumers requirements that changes during the time. This is why sustainability has become a very important solid foundation and smaller companies strive to be aware of it. I think that many of the larger companies success is doe to their way of always thinking of sustainability and long-term decision. But to create it is not that easy like saying it, sustainability is hard to achieve and it can always be improved.

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ANALYSIS OF THE DEVELOPMENT ENVIRONMENT OF HUAWEI MOBILE PHONE IN THAILAND MARKET AND SOUTHEAST ASIA

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ABSTRACT

Analysis of the development environment of HUAWEI mobile phone in Thailand market and Southeast Asia. Overview of HUAWEI mobile phone company, HUAWEI Technology Co., Ltd. and the overall performance of the situation analysis; HUAWEI mobile phone in Thailand and Southeast Asia market PEST analysis, build HUAWEI mobile phone market in Thailand and Southeast Asia development strategy and strategy planning. The development strategy of HUAWEI mobile phone in Thailand market and Southeast Asia Company, From the differentiation strategy, competitive strategy and marketing strategy; The specific implementation steps of the development strategy of HUAWEI company should be developed from the stage of development strategy selection, the implementation stage of development strategy and the evaluation and adjustment stage of development strategy; Analysis and demonstration on the risk of the implementation of the company's development strategy and the support means of the implementation of the strategy.

Keywords: PEST theory, HUAWEI mobile phone, Development strategy

Chapter 1 Journals reviewed

1.1 Current research situation of China

For the enterprise strategic management theory, the real beginning of the enterprise as the research subject of the research time is not long, but the domestic theoretical and academic circles to the enterprise strategic management research has been very concerned.

From China's strategic management theory and academic research related to the genre. In the strategic direction of the management of China's more mainstream include: resource theory, diversification, core competence theory, stakeholder theory, in recent years, new development trend mainly system theory of the social relation

network, business ecosystem theory, harmonious management theory.

More theoretical research on corporate diversification, Yin Yi sheng (1998), Zhu Jiang (1999) et al. to our country enterprise's multiple development related question has carried on the quite concrete empirical study. And Xu Qing (1999), Wang Yi (2002), Liu Jisheng (2002) et al. on the study of the enterprise strategic development of the beginning(Refocusing) of the problem, specific research contents include, through the design of the corresponding index for measuring the specific enterprise core competence, and this was the relatively normative empirical analysis. This method created a domestic corporate diversification research a new research field, but the study of index and the sample selection is still not perfect and need further precise.

As the data is easy to obtain, the information is complete, the listing Corporation has become an important object of empirical research in the domestic strategic management. A resource based theoretical study of the main representative figures include: Xu Ke (2002), Wan Junkang (2001), Chen Jin (1999), Wang Kaiming, et al. Research on the theory of social relation network system, Bian Yanjie, Yao Xiaotao, Qiu Haixiong (2002), Xi Youmin (2003) et al. mainly reveals from the perspective of social network, the influence factors of enterprise performance, the social network of enterprise development, enterprise performance impact, In 1997, Gu Naikang studied the theory of knowledge in the strategic theory. Shen Yifeng, Wang Lingyun, Jia Shenghua et al. in 2003 through the study of stakeholders on the impact of corporate strategy put forward the stakeholder theory; Shi Zhanzhong (2001), Wang Guangqing (2003), Dong Chuanyuan (2003), et al. Studied the virtual enterprise strategy of Chinese enterprises.

Zhou Wenyan (2004) et al. on the evolution law of the enterprise strategy management theory has made the description: The focus of strategic theory is the first to focus on enterprise internal——Strategy is a plan, analysis process, and then start to pay attention to external enterprises——Concerned about the analysis of the industry, and finally turned back to the enterprise——It emphasizes the construction and maintenance of the core competence of enterprises and the analysis of the external environment——The main focus for the cooperation between enterprises, the establishment of complementary advantages of the combination of enterprise groups. And the focus of the enterprise competition strategy follows the inter firm competition from weak to strong, until between enterprises how to confront each other, the development and competition strategy to finally focus on cooperation and symbiosis, to establish a complementary and common prosperity of the business ecosystem. In this process, the ultimate goal of competition has changed from the pursuit of tangible products to victory——The short-term external competitive advantage to the invisible future——The persistent pursuit of the inherent competitive advantage.

1.2 International research status

From the end of the twentieth century in the 1960s to the 1980s, study on corporate strategic management theory into a brilliant period, many scholars of strategic management research, produced a variety of different genres, which has representative genre mainly: by Andrews on behalf of the school of design. Ansoff for on behalf of the planning school and porter on behalf of the positioning school.

a. Design school of thought

Design School of thought from Sergi Nick, Chandler to be developed and grow, which contributed the largest representative is Kenneth R Andrews. Design school of thought, known worldwide as the representative work is the famous SWOT model is established. The model is still being widely used in a variety of strategic management and analysis activities, very practical value in 1965, design school established the SWOT model, the formulation of the model and the strategy advocated to take into account the organization internal strengths and weaknesses and external opportunities and threats, emphasizing the importance of strategic choice of checks and balances between the inside and outside the organization.

b. Planning school of thought

Planning school of thought has developments in 1970s, the main representative for the main ideas. Ansoff planning school is that the strategy is a controlled, conscious, standardization process, strategic behavior is the process adaptation to environment and internal resulting enterprise structured. The outstanding feature is the introduction of many mathematical school plan scientific decision-making method, applied to the process of strategic analysis, then put forward the strategic planning model considerably more complex. Compared to design school, planning school published tens of thousands of articles, but because it is difficult to achieve a breakthrough in the theory of innovation, too many repeated design school concerning the basic viewpoints, thus its influence gradually decline.

c. The Positioning school of thought

The positioning school of thought is founded by the famous Michael Porter, the industrial economics related theories and methods are applied to the research of enterprise strategy. The general pattern of industry analysis is proposed by Michael Potter in *Competitive strategy*. This analysis method in classical industrial organization theory "structure - behavior - effect" (SCP) model that industry structure is decided by the intra industry competition, and determines the behavior of enterprises and strategic, and ultimately determine the performance of the enterprise. Potter believes that the core of the enterprise strategy is to gain a competitive advantage, and the competitive advantage depends on the profitability of the industry,

that is, industry attractiveness and the relative competitive position of enterprises in the industry. The Positioning school of thought will be strategic research focus from enterprises to the industry and points out that the enterprise external environment, especially industry properties and structural factors on corporate profits, create "five forces" model (suppliers, buyers, the current competitors, alternative product manufacturers and potential industry entrants), industry attractiveness matrix, value chain analysis and a series of analysis methods and models, to help enterprises industry choice and location, making competition strategy.

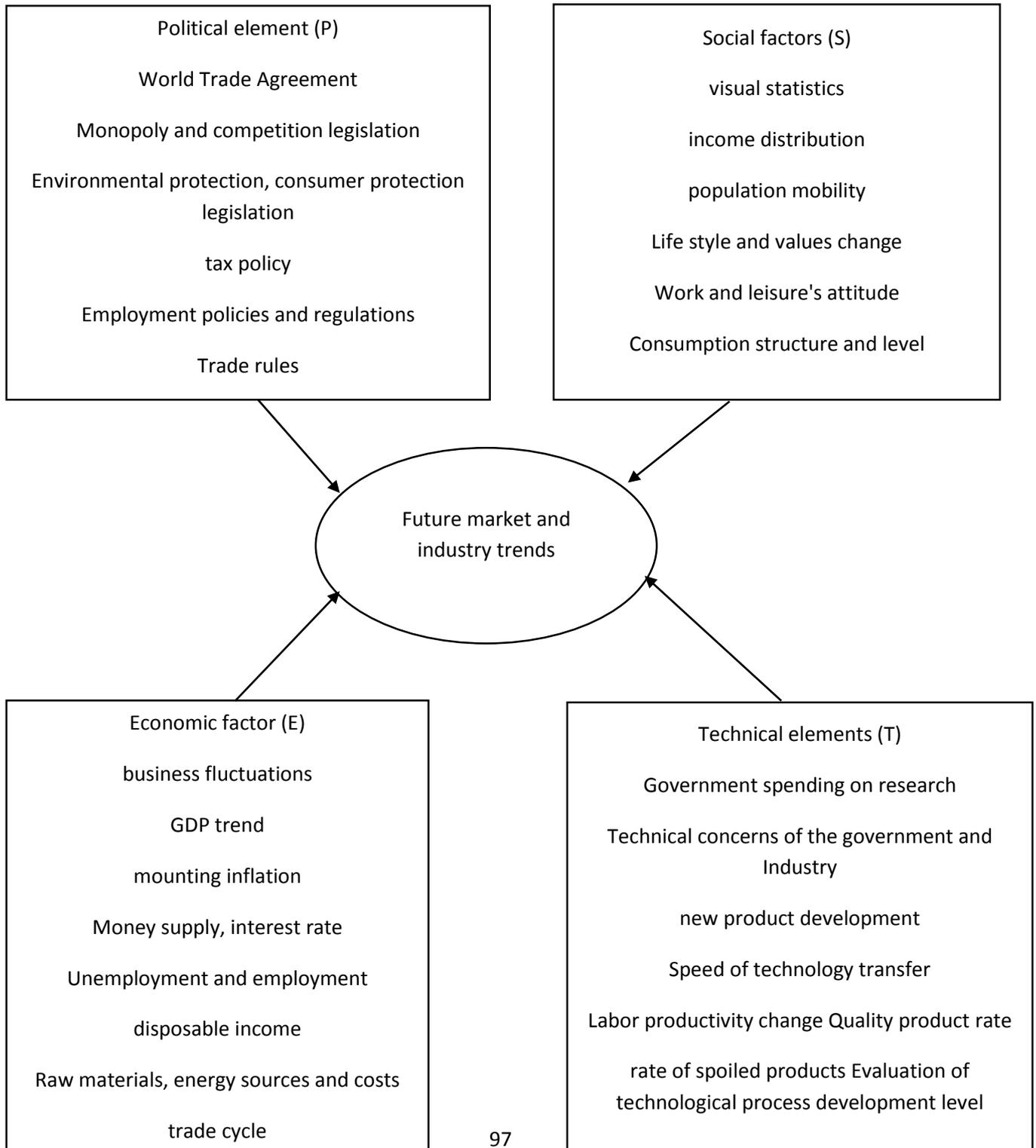
Traditional strategic theories mainly static study, applicability is obvious in the external environment is relatively stable, speeds up unceasingly along with the change of the market environment and the consciousness of strategic management research to the importance of the study of "dynamic". In this regard, foreign strategic management theory showing two new trends: one is concerned with the dynamic environment, theory of the strategic management of discontinuous change in stresses on the external environment; the second is the dynamic content, namely enterprise strategy, organizational ability and internal system and process different content between the mutual relation and dynamic adaptation. The typical representatives of the latest theory include: flexible strategy, enterprise group network architecture and strategic options. Traditional strategic theories mainly static study, applicability is obvious in the external environment is relatively stable, speeds up unceasingly along with the change of the market environment and the consciousness of strategic management research to the importance of the study of "dynamic". In this regard, foreign strategic management theory showing two new trends: one is concerned with the dynamic environment, theory of the strategic management of discontinuous change in stresses on the external environment; the second is the dynamic content, namely enterprise strategy, organizational ability and internal system and process different content between the mutual relation and dynamic adaptation. The typical representatives of the latest theory include: flexible strategy, enterprise group network architecture and strategic options.

In general, experienced the glorious period, strategic management emerged in various schools, these schools focus and perspective is different, but can to some extent help enterprises to better understand the meaning of strategic management, proposed by different schools of strategic analysis method and model of strategic analysis has more practical value and significance. Specifically, the enterprise through on strategy analysis theory and integrating enterprise strategic management, combined with the internal and external environment of the enterprise, product features and their own characteristics, suitable for the enterprise's development strategy.

Chapter 2

PEST analysis of HUAWEI mobile phone in Thailand market and Southeast Asia market

PEST theory analysis model for enterprise macroeconomic environment, the political environment, economic environment, social environment and technical environment analysis, enterprise's external environment is not affected by the business control. Therefore, the factors also called external harmful substances.



2.1. Political factors

In recent years, Southeast Asian countries experienced from authoritarian transition to democracy, the political environment in the country gradually relaxed and free, its political system is to perfect and legalized. From the beginning of 2003, all Southeast Asian countries has established the new national leader election this type election, but they are still not fully established democratic system. According to the American political scientist Howard's state theory to divide the degree of democracy, at present in Thailand and the Philippines can consider to be fully democratic countries, Malaysia and Cambodia is part of a democracy, Myanmar, Vietnam, Laos is authoritarian state.

Democracy in the Southeast Asian countries have two reasons, one is triggered by the financial crisis, the original authority political system collapsed, political strongman was forced to step down. New leaders through a series of reform measures, the establishment of new democratic political system; in another aspect, because some of the existing state of the military regime has brought serious corruption, the country is totally unpopular regime, using a democratic civilian government to replace the military regime in 1992. In the coup in Thailand, the Thai military regular elections produced leaders gradually withdraw from the political arena. Now Thailand situation is still complicated.

First, the "family politics" lack of trust in September 2006, Thailand's military coup, Thaksin led to the party was forced to disband, he believed the \$1 billion 400 million personal property was confiscated. After his exile in 2011, the British won the election, becoming the first female Prime Minister of Thailand. The ruling two years, against the government of Thailand the organization was the same as her brother, Yinglax rely on the support of rural power, and in the middle of the city elite attention degrees was weak; the British government was under suspicion of Thaksin's "shadow government". Amnesty bill by making anti-government organization more firmly their views. They believe that only completely remove him the family political group, in order to ensure the stable political situation in Thailand.

Second, the two factions fighting lack of restraint. "Democratic Alliance " and " National United Front of Democracy Against Dictatorship" is a series of military coups and political crisis in the rival's two main force. To demonstrations of dress to distinguish, support Thaksin Democratic Alliance against dictatorship, commonly known as the " National United Front of Democracy Against Dictatorship" against Thaksin people's Alliance for democracy, commonly known as the "Democratic Alliance ". In recent years, "the red and yellow showdown "has become Thailand's political power struggle in the main role. Because there are no corresponding punitive measures, both sides are ignoring the rules, to push his opposition the downfall of the government, both sides even random gathering population impact of government departments, to overthrow the government.

Third, the distribution of interests leads to opposition. Behind "Red and yellow showdown", in fact, is by Thaksin, Yinglakh representative of the Populist Party and by the urban elite, judge, distribution of interests between the representatives of the army vested interests dispute. Yinglakh and Thaksin's economic policies are highly similar, used "populist route" -- provisions of the minimum wage increased by 36% to 89%, university graduates starting salary of not less than 1.5 million baht, upregulation of rice purchase price, in the country to build a high-speed railway, to students issued tablet and so on. Appears in the middle of Thailand, Thaksin and Yinglakh 'relieve distress,' Lower level people's policy 'is the government to take taxpayer money to subsidize low-income people, is in the division of their wealth. As a major contributor to the national tax, the middle class cannot, of course, to accept the underlying segmentation they have access to the" cake ".

Therefore, the political form of the region is more complex, dominated by the military government of the democratic state, it is difficult to form a true sense of the political system of democracy.

Due to the 2008 financial crisis hit Thailand, in recent years Thailand to as soon as possible to revitalize the national economy as its overall goal in domestic policy, to Thailand and China Economic and trade relations, in a tightly, strengthen cooperation in various fields and become the focus of government work. The economic diplomacy as the core of a very long period of time, the choice of foreign policy, Thailand is carrying out a strategy, to guide the Thailand China friendly, economic recovery and development is the primary task facing Thailand. The object of the main economic diplomacy is the neighbor of China and China.

The Chinese government on the development of domestic enterprises overseas has been pursuing a policy support, the State Council has approved and issued on the development of foreign contracted projects, overseas Chinese funded organizations to strengthen security personnel to work on a series of important documents. In addition, the Ministry of Commerce jointly with the relevant departments, has also developed a corresponding tax, foreign exchange, credit and other policies, policy of relatively complete system, encourage foreign investment, promote overseas processing trade, play an important role.

China has initially established a set of policies to promote, services, supervision and coordination mechanism, to ensure that the Chinese enterprises in the rapid development of international business. Huawei's development in Southeast Asia, has unfolded the Chinese foreign economic policy powerful role.

2.2. Economic factors

At present, the development of the Southeast Asian economy has shown two characteristics, first, gradually out of the shadow of the financial crisis, began to enter the stage of sustained and stable growth, two is the region's regional economic integration is moving toward depth and breadth.

Due to the 2005 tsunami, landslide, climate anomalies, such as natural disasters and terrorism in the external environment influence, resulting in some Southeast Asian countries rely on adverse effects on exports of electronic products. On the other hand, international oil prices gradually rise also affected the region's economic growth. Despite these unfavorable factors, Southeast Asia or to overcome the difficulties, the gross domestic product (GDP) in the region maintain a 5% annual growth rate.

Thailand's economy is export-oriented industries, although the impact of the Asian financial crisis in 1997, the country's economy caused serious impact, but until 2006, Thailand's economy has been in recovery of a gradual process. In recent years, in the Thai telecommunications industry exports accounted for gross domestic product 10%, 26% of the value of total exports, accounted for 2.4% of the global IT industry.

General situation and the macroeconomic form in the region is in the correct direction, first of all improve the region business environment, and enhance the confidence of foreign investors. The second is the rapid growth of China's economy in the surrounding areas of India and Southeast Asia's economic recovery and development provides a new dynamic force, especially in China's increased demand for raw materials and semi-finished products fuel greatly stimulated the various countries in Southeast Asia's export growth in Asia. From 1998 to 2004, Thailand's exports to China increased 393.4%, and Thailand, the famous tourist country, in recent years Chinese tourists were also significantly increased, this also promote the Thai economic development.

In the first quarter of 2010 the Thai economy growth of 12%, due to the influence of political demonstrations began in March 2010, resulting in the second quarter of the country's gross domestic product (GDP) reduction. And because of this effect, compared with the political events of the past, many serious, resulting in the confidence of foreign tourists and investors need a long time to recover.

On the other hand, began in August 2007, the subprime mortgage crisis in America, Europe and Japan, but also makes the area in Southeast Asia enterprises, there are a certain degree of influence, increase the uncertainty of the world economy, economic slowdown, of all the signs, the global economy is not yet out of the shadow of the economic crisis.

Most of Huawei's products are in domestic production, because of China's accession to the WTO, import tariffs of electronic and communication equipment decreased significantly. Because a large number of imports of telecommunications equipment into the domestic telecommunication equipment market, resulting in a surge in the number of, overall communication equipment market prices fell rapidly. At the same time, the government's policy for domestic communications equipment manufacturers from tariff protection variable for non - tariff protection. The domestic communications equipment manufacturing industry in the competitive environment will be more severe. Therefore, rely on Huawei high price products advantage will no

longer exist, Huawei's overseas development is a test.

2.3. Social and cultural factors

Thailand is located in Central South Peninsula of Southeast Asia is a famous tourist country, the tourism industry in the rapid development of Thailand international telecommunication business and the development of mobile business, in addition to foreign telecommunications firms with relatively low social status such as Huawei Company provides opportunities in Thailand's general telephone penetration rate.

At present, the Thai government function is not separated from the telecommunications industry, in Thailand, there are two state-owned operators, namely CAT and TOT. The two operators are syncretic of politics look forward to a form, telecom service operators to occupy in the Thai telecommunications market dominant position. TOT and CAT is responsible for most of the test and the network license of telecom network equipment, TOT fixed telephone accounted for more than half of the market share, the CAT's in the international telecommunications services in a monopoly position.

On the one hand, the domestic telecom market in Thailand began in the global mobile communication technology development is relatively mature period, in another aspect to the development of the tourism industry, prompted the Thai mobile services, rapid development, to promote economic growth. The Thai telecom market at present is characterized: the development of mobile communication business greatly exceeded the fixed telephone service. This in the fixed phone business is facing tremendous pressure of competition. TOT and AIS companies respectively in the market of fixed telephone and mobile phone competition, more than 60% of the market share of possession of absolute advantage.

Thai customs also for transport of WTO member countries and the production and assembly of about 153 species information technology products realize zero tariff, Thailand's existing policies and regulations, imports in less restrictive communication equipment and related services, in addition to using their government fiber products in the project, other imported products, no specialized communication device technical standards and requirements. At the same time, Thailand's telecommunications market is in a period of rapid development, so it has abundant opportunities. These advantages and policy, gave China communication equipment and technology suppliers in Thailand more machine market, become Huawei to Thailand market and Southeast Asia market the best opportunity

2.4. Technical factors

The rapid development of information technology in a large extent is expand electronic communication products in the market space. Technological trends put forward business data in telecommunication network, broadband technology, fiber optic network, characteristics, these are electronic communication products, created a

huge new market for wireless access for the development. In order to improve their own competitiveness, telecom operators to actively introduce new technologies, new equipment, the purpose is to continue to provide new services, these measures to improve the service level of customer perception, communication equipment manufacturing enterprises and operators provided for the huge market space.

Chapter 3

The development strategy of HUAWEI mobile phone in Thailand market and Southeast Asia Company

3.1. Competitive strategy

Competitive strategy mainly said is Huawei, the mobile phone company, on the use of existing resources of company value based, in order to obtain more market, share and the passive defense or a proactive strategy. Huawei, the mobile phone company, should according to its internal and external environment and their own characteristics, to develop the competition strategy of enterprise to adapt itself, but enterprise competition strategies are not static, it is according to the enterprise's environment to determine when changes to the internal and external environment, and the enterprise competition strategy related concepts and ideas should also corresponding changes occur.

(1) To understand the consumer

First, Huawei's mobile phone companies should through market research activities and on the market investigation and research results were detailed research, analysis and summary, to understand consumers in the area of consumer preference, Huawei phone of knowledge and understanding, and to buy mobile phones and so on. In-depth understanding of consumers is an effective competitive strategy important step in establishing Huawei mobile phone company.

(2) Enhance the quality of service, to create quality services

HUAWEI mobile phone company maintenance service level. To a certain extent, to the important role share growth for the company's sales, and one-time sales activities, because of its repeatability, so in the mobile phone market occupies a very large part of the profits. So that HUAWEI mobile phone company services team some of the high-quality service for the sale of mobile phone, is a bridge between sales and customer service, the service itself is HUAWEI mobile phone company signs. At present, very need a large number of mobile phone technology, but also know how to sell hand machine high-quality professional sales personnel; the urgent need for not only understand the basic principle of the new structure of the new mobile phone. At

the same time to understand the technology, mobile phone, mobile phone also can diagnose some aspects of faults, to adapt to customer service maintenance team needs HUAWEI mobile phone. The company shall for business practitioners should have some strict qualification requirements, attention to business personnel training, and its rise to the development of the strategic level up. Require the salesman can quickly and correct understanding of customer's real idea. Speak properly so that customers have a sense of trust. In addition to the need for a further strengthening service training, such as the participation in decision-making training, sales skills, and so on relates to the many.

(3) A large number of promotional activities and efficient sales team

HUAWEI mobile phone companies need a lot of advertising, consumers have to create a strong brand awareness and consumer preferences of the HUAWEI brand mobile phone, leading consumer spending habits and consumer activities. In advertising, on the one hand to cooperate with HUAWEI's marketing activities, in does not violate the big direction at the same time, highlighting the characteristics of HUAWEI mobile phone the company itself, to impress consumers and causing them to have a vision. At the same time the HUAWEI mobile phone, HUAWEI mobile phone companies also need to nurture and have a high level of sales team, they know consumers' psychological activities, can accurately grasp the needs of consumers, the relevant knowledge of mobile phone is also very familiar to consumers. Trust them, they buy mobile phone is assured.

3.2 Marketing strategy

(1) Increase market share

Market share has very important meaning to each enterprise, Huawei mobile phone company by increasing market share can not only a substantial increase in sales, but also can have a higher rate of return on investment. Studies have shown that in this industry, the market share rate of 40 per cent of the enterprise's average rate of return is market share less than 10% of the enterprises of the three times. In order to achieve to improve the market occupancy rate, can proceed from the following aspects:

Efforts to open up new users. The Huawei, the mobile phone company, the main customer group is the main customer groups to have certain of the purchasing power of the crowd. Huawei, the mobile phone company, can by sponsoring large-scale public events in the region, to expand the brand's audience, let more people understand Huawei, increase Huawei brand influence and increase the potential sellers.

To prevent the loss of existing customers. Huawei, the mobile phone company, reduce its customers churn rate, average customer extended the duration of, customer life time value will increase. Huawei mobile company should adopt the strategy of relationship marketing, establishing long-term customer relationships, by maintaining

strong customer relationships can significantly reduce marketing costs, and the greatest degree of reduce because of the loss of customers as a result of damage to the interests.

(2) Integration of resources

Any of the company's resources are limited, Huawei, the mobile phone company, in the face of strong competitors, should through the effective integration of internal resources, the establishment of local competitive advantage. Huawei, Huawei, the mobile phone company, at present, the agent of the full range of mobile phone, sales scope more extensive. With the development of the diversification of consumer demand, in mobile phone innovation speed becomes fast trend and focuses on the selection of the competitiveness is relatively strong and relatively good prospects for development of Huawei smart phone as a selling point. So, Huawei, the mobile phone company, should to adjust the structure of the current product line, better concentrate their limited internal resources.

Chapter 4

Conclusion

In this paper, the internal and external environment on the development of Huawei, the mobile phone company, and faced with the advantages, weaknesses, opportunities and challenges were analyzed, of Huawei's mobile phone market in Thailand and Southeast Asia market PEST analysis, from the aspects of competitive strategy and marketing strategy to start for Huawei Company in the overseas development to provide theoretical support.

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IMPROVEMENT OF AUTOMOTIVE ARTICLE PLACEMENT AND WORKLOAD DISTRIBUTION IN WAREHOUSING

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1. Introduction

1.1 Background

In the beginning of 20th century the Japanese car industry was underdeveloped compared to the U.S industry. This relation between the markets was true for many categories of the production included production management techniques as well as business management (Ohno, 1988). Despite Japan's attempts to copy the superior industry, they could never catch up due to different preconditions, in domestic market and economy (Womack, Jones, & Roos, 1990). In the middle of the 20th century the industry was so strained that the president of Toyota stated that it might lead to a total collapse in a few years' time (Ohno, 1988).

In 1940 it was recognized by Taiichi Ohno that an American operators out produced a Japanese operator by a ratio 9-1. With this background Ohno developed a new production system with the aim to improve efficiency in the Japanese industry. This system would later be known as lean manufacturing. The system was proven to have a great effect after 1940s oil crash which was devastating for Japans industry. Despite the industry's difficulties, Toyota, who used lean, remained profitable (Ohno, 1988). The validity of this production system was also proven in recent time by Naga & Rambabu (2014), who found that Indian companys that does not work after the principles of lean production will has a hard time surviving the global market climate due to its competitiveness.

Bernolak (1997) describes the concept off efficiency as a relation between inputs and outputs. He also argues for the importance of efficiency. Not only for a company or a specific operation but also for the entire global prosperity which is a product of the industries productivity. In this paper output will be assessed through customer value. According to Law (2009) customer value can be defined as: "*A consumer's assessment of the overall capacity of a product to satisfy his or her needs.*"

Ohono (1988) argues the same point as Bernolack (1997). Ohono's (1988) idea is to reduce waste. Since it by definition does not add any value it must be eliminated (Ohno, 1988). This would reduce the input while maintaining the output of customer value which would lead to a more favorable ratio between the two (Bernolack, 1997). Ohono (1988) defined seven wastes that any manager should seek to reduce in order to increase efficiency. On average 50-70% of a company's operations can be considered to be waste. Even the best practices can be considered to have up to 30%

waste. This does not only lead to less efficiency but also capacity restriction since it limits the overall throughput (Taj & Lismar, 2006).

Two out of the seven wastes are excessive motion and excessive transportation. Both of them can be reduce by optimizing the warehouse layout (Jonsson & Mattson, 2011). Warehouse layout is a well-studied field. Despite this it is commonly accepted that the current approaches contains some weaknesses since every approach contains certain assumptions and can therefore not be described as generic (Castillo & Peters, 2010).

1.2 Purpose & Research questions

The following bachelor papers treat the problem of improving the industry from a scientifically perspective. The study focuses on workload imbalances as well as efficiency. This will be done through a case study in the vehicle manufacturing industry. Hence the study's purpose is to:

Improve the efficiency of warehouse operations as well as to reduce its workload imbalances by altering the warehouse layout and work zones at a storage area.

To full fill the purpose, the current state has to be investigated. This will be used as a baseline for the remaining research questions which concerns improvements. This has led to the first research question which is:

The first research question aims to set up initial parameters for the study by describing the current process in terms of efficiency and workload imbalances. This was used as a baseline for the coming research questions which concerns improvements.

RQ1: What is the current state of the sites efficiency and workload imbalances?

After which improvements will be designed and evaluated. The study will focus on efficiency and workload imbalances. This means that the next two research questions will deal with both of these aspects. The second research question will deal with the first aspect, to find ways of improving the efficiency in warehouse operations by altering the warehouse layout. This has led to a research question which is:

RQ2: How can the warehouse layout be altered to increase efficiency?

The third research question is dealing with the remaining parts of the purpose, namely reduction of workload imbalances, which led to the last and third research question.

RQ3: How can warehouse work zones be altered to reduce workload imbalances?

By addressing one research to finding a baseline and the remaining two to find ways of improving the two areas which was stated in the purpose as efficiency and workload imbalance, the purpose can be fulfilled.

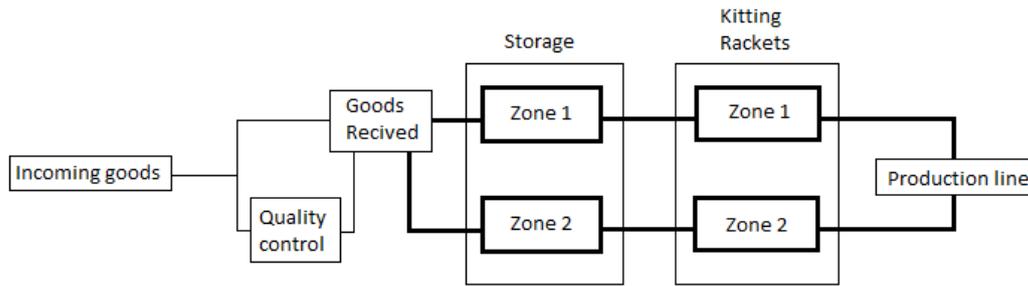


Figure 1- The current material flow.

2. Empirical study

The following chapter will present the case company in regards to its process and relevant empirics.

2.1 Case description

The site has recently been rebuilt due to a change in production. From producing cars to producing trucks and buses. It is a part of Volvo and thereby the site uses Volvo's production philosophy, called Volvo production system (VPS). This system is closely related to lean production with a different approach to the formality of the organization structure. (Sandberg, 1995). Since the site manufactures trucks and buses the studied flow is restricted to trucks. The site manufactures an average of twelve trucks a day. The trucks are manufactured with the basis in two different models, which is adapted to the customer's specific requirements.

2.2 The current process

The current process begins with 90% of the pallets being unloaded to the goods receiving area (GR) while the remaining pallets are moved to a separate area for quality control. After the quality control the pallets re-join the main flow at GR. The pallets are later moved to storage where they are divided in two zones. This is where the case area begins. In the storage the pallets are sorted after their height and width after which they are assigned a random location in their respective zone. Next station for the pallets is the kitting rackets. Pallets are moved there whenever the quantity at a kitting rackets runs low. When the quantity runs low, an assignment is given to the replenishment operator. There are two assignment types. First and most frequent type is a normal assignment which signifies a future need of replenishment. Second assignment type is urgent assignment. This type signifies an immediate need for an article.

The kitting rackets contains designated spots for every part number which is specific for every article type. In the kitting rackets each part is picked individually and moved to the assembly line. The study process end when the parts reaches the assembly line, thereby limiting the case study to two operations, store pallets and move them to kitting rack. This is where the focal of the bachelor paper ends. However the picking process is also studied in an attempt to avoid sub optimizations and increase efficiency through a higher output.

Figure 1 show the flow as described in the previously paragraph.

2.3 Current performance

Average travel distance for kitting operators was collected to study how customer value from replenishment can be increased by placing pallets at optimal positions to reduce travel distance for operators further down in the material flow. The travel distance can be found in Appendix 2 where one choice random order from each usage point have been studied and added together.

Average travel distance for replenishment operators was collected through a mathematical analysis of the case. The analysis is available in appendix 4. Even though most transportation can be seen as waste some is still be necessary in the current system. Average travel distance is a KPI that helps with waste reduction regarding traveling. The mathematical analysis is based on equal demand of pallets. In the case there are two zones. Both of these Zones can be approximated as square. The zones contain eight parallel rackets each which was used in the analysis to calculate theoretical travel distance. To illustrate case also revealed how much time a replenishment operator spends on average to complete the assignments. The average time of traveling between storage location and kitting location is about 4 minutes out of the total 11 minutes which is the standard time for each assignment. A quick glance of Table 1 – Replenishment process time for operators. Table 1 and appendix 3, might reveal the problems of the current situation to an attentive reader. The problem is that the demand is higher than the capacity of the two operators. This is met by helping the replenishment operators with “clean to kitting location” by assigning additional resources. For clarification, this study focuses on average travel time “Fill part to kitting location” which gives the operator more time to complete a bigger portion of the task without help of additional resources.

Table 1 illustrates the time spent on performing one assignment for an operator. The time is first divided into two categories. Part to kitting location is the process of receiving an assignment and getting the pallet to its kitting location. Kitting location to clean is removing the empty pallet from the kitting location to an area where pallets and other used handling material are placed. The standard time for these processes is STD time, which can be seen in the table. The process which the intended improvements effect is travel time of “part to kitting location”. For that reason the standard time for this category is split into average travel time and average non travel time.

Table 1 – Replenishment process time for operators.

Part to kitting location	
Round	Time (Min)
AVG travel time	4
AVG non travel time	0.4
STD time	4.40
Kitting location to clean	
STD time	6.6
Total standard time	11

Frequency of workload imbalances used information on the current demand in each zone. This demand is available in Appendix 3. Appendix 3 shows demand extracted from a week of working.

3. Analysis

In the following chapter the empirics will be combined with the theoretical framework in an analysis in respect to the research questions.

3.1 Research question 1

In chapter **Error! Reference source not found.** it is described how a KPI should be chosen. It is stated that the KPI should be designed to measure the intended result and overall goals. In this case: improved efficiency. Since efficiency depends on both input and output (Bernolack, 1997) both of these was measured. Chosen KPIs for input is theoretical capacity for replenishment operators. The number of operators remains the same during the case which means that improved capacity leads to less input for each assignment and thereby higher efficiency. A number of different aspects are studied. These are theoretical number of urgent orders, theoretical workload imbalance and a route study for kitting operators. Analysis of workload imbalances and measures the stability of the process which leads to higher customer value and output. Route study for kitting operators shows the effects replenishment has on the downstream efficiency. Increased downstream efficiency means a higher output and thereby higher efficiency in the focal area. For time being there are five operators in Zone 1 and six operators in Zone 2. In the same zones there are two replenishment operators.

The effects are measured through the following KPI:

- Average travel distance for kitting operators.
- Average travel distance for replenishment operators.
- Frequency of workload imbalances.

The outcome of these KPIs is documented in chapter 1080 and will therefore not be further evaluated in this chapter.

3.2 Research question 2

Efficiency can be increased by either increase of output or a decrease of input. Chapter 0 is dedicated to discuss these separately.

3.2.1 Increase output

The following section discusses how customer value can be increase through adapting the focal process to the next process in the production chain. By providing savings in the downstream process customer value is increased by the same amount.

The bulk of the work is put into picking operation (de Koster, Le-Duc, & Roodbergen, 2007), which in this case is made up by kitting the bachelor paper focuses on how the studied area can benefit the kitting operations. By increasing the customer value generated to kitting operations, the warehouse efficiency can increase. This means that the efficiency in the study is improved by increasing the output.

The efficiency of the kitting operations is increased by improving the picking routes which reduces the travel distance and thereby the waste. This was done by dividing the articles in different families and place them in proximity to each other. Every part has one or multiple usage point in the production line, although most articles only have one. Every assignment is generated from usage points which make the product

families relative clear cut. This limit the problems discusses by Castillo & Peters (2010). In the cases where some articles have multiple usage points, and therefore belong to two different families, these product families get linked together in the final layout. Another way of solving multiple usage point is to assign two kitting locations to the article.

Even though the products have slightly different destinations they will for the sake of this project have a theoretical common destination. Due to the process relative small difference in physical destination this approximation is considered to be insignificant to the overall result. Since the usage points have a different number of articles and therefore occupy different amount of space it is beneficial for the kitting operators overall travel distance to put the smaller product families closer to the common destination, thus allowing a bigger number of orders to be carried out with lesser travel distance. This rests on the same basic as ABC classification namely providing favorable locations for frequently picked articles. However the different pallet frames and the preexisting warehouse layout limits the possibilities of this. Therefore the smaller product families are only be placed close to the destination whenever it is possible. The complete layout is available in **Error! Reference source not found.** where family groups are allocated in the kitting rackets.

The new kitting layout is compared with the old kitting layout. This is done by comparing the travel distances in the kitting layouts. This comparison is available in Appendix 2 and shows that the average travel distance was reduced by 21% in Zone 1 and 41% in Zone 2 making the average benefit of 31%.

Kitting locations can be organized through family grouping (Lundsen, 2012) according to **Error! Reference source not found.**. In the current case it was found that the travel distance for the kitting operator could be cut by approximately 31% which correlates with the findings of Castillo & Peters (2010) who states that family grouping can increase the efficiency of the flow. Bernolack (1997) states that efficiency is the ratio between input and output. In this case the input is labor. Labor input is measured by combined time spent for the operator. Since generally half the time spent can be attributed to traveling (de Koster, Le-Duc, & Roodbergen, 2007) . This means that needed that is the amount of the work that is affected by the family grouping. Since travel distance and travel time is proportionate (de Koster, Le-Duc, & Roodbergen, 2007) reducing travel distance by a set proportion is likely to reduce the travel time to by the same proportion. Combining this logic with “Appendix 2” kitting operators can spend 21% less time traveling in Zone 1 and 41% less time in Zone 2. This gives an average of time saving of 31% in traveling. Half the total time is traveling which means that the time savings is 15.5% of the total time.

There are five operators in Zone 1 and six operators in Zone 2. In the same zones there are two replenishment operators, one in each zone. Which is the same findings as de Koster, Le-Duc & Roodbergen (2007), that picking is the most labor intense process in warehousing. This means that adapting the replenishment process to the kitting process has big effects on the efficiency of the replenishment process.

There are eleven operators in kitting and two in replenishment. This means that customer value generated by the less labor intense process is amplified by its impact on every operator in the next process. Saving a fixed number of work hours is more prominent in a process with fewer wok hours than in one with more work hours.

Since then input is the same in both process, namely work hours, the waste reduction can be compared directly by calculate the overall impact on the organization.

$$\frac{11 * 15,5\% * Value}{2} = 85\% \text{ Increased value}$$

This means that the customer value from replenishment can be increased by 85% by adapting the process to kitting operations and thereby increasing the efficiency by the same amount.

3.2.2 Decreased input

The distance between kitting locations and warehouse location is also reduced. This is done by changing the current system of random warehouse location in the zones to a system where pallets are placed at the closest possible position possible to their intended kitting location. If the right area is unavailable for the pallets from GR, the pallets will be transported to another area in proximity the one that was initially intended.

From the document analysis it was found that the standard time for a replenishment operator was eleven minute per pallet. Out of these four minutes was reserved for kitting operator to travel between storage kitting location and kitting location. The complete distribution of time is described in Table 1 – Replenishment process time for operators.

Appendix 4 show that organizing the pallets in storage according to their future usage point in kitting is significantly reduce the travel distance. The current or old system leads to an expected travel distance between pallets of 0,63L compared to the 0,33L of the new system. This leads to a decreased travel distance of $1 - \frac{0,33}{0,63}L = 48\%$. The travel distance that was reduced can be seen as waste in the current system Ohno's (1988) deffention. This however begs the question why the waste cannot be reduced more. Even the storage is 100% waste according to Ohon (1988). The necessity of storage is intuitive in the case as described in chapter **Error! Reference source not found.** due to deviations in the process such as demand and delivery deviations. There is however a case to be made that only kitting locations should be enough. This would however demand a big storage area which is not only expensive but also leads to impractical kitting layout and long travel distances for kitting operators. This reasoning justifies the use of storage to counteract the deviations in the process.

Travel distance in the new system could be shortened further by split the alleys in the smaller sections and limit the storage to each of these regions in respect to the pallets in kitting. Even though this could lead to decreased travel distance it would also lead to lower capacity of storage. The storage would decrease in capacity since the zones would make the storage less versatile. This creates a trade-off situation.

There is also an idea that that storage locations could be prioritized to be as close to the kitting location as possible. This would not create the same trade-off as previously mentioned. Instead it would break the correlation which according to Slack & Lewis (2011) is possible by changing the method of the process. The usage of this method is however not possible in the case without changing the technology system.

The travel distance was reduced by 48% in the new replenishment setup. As previously discussed there is a direct correlation between travel distance and travel time. Table 1 – illustrates the time distribution of replenishment operators. It shows that 4/11 minutes is attributed to the travel which is affected by the new replenishment setup. It means that $48\% \times \frac{4}{11} \sim 17\%$ of the input labor will be reduced in the new system.

3.3 Research question 3

In the current process orders are generated to two different zones as illustrated in Figure 1. The layout of these zones is presented from a top view in Figure 2. The operators work exclusively in either of two zones. Day to day variations creates workload imbalances in these zones (Pyung-Hoi, 2008). The workloads follow the bell curve according to the parameters set by Mattson (2003b). To even out the workload a third zone will be created which generates assignments to both Zone 1 and Zone 2. In Figure 2 this is illustrated with a circle. This will limit each operators work area while nullify workload imbalances. The zone will be sized and located so that its effectiveness of the workload gets assessed with a trade-off with larger operating area which leads to longer transports.

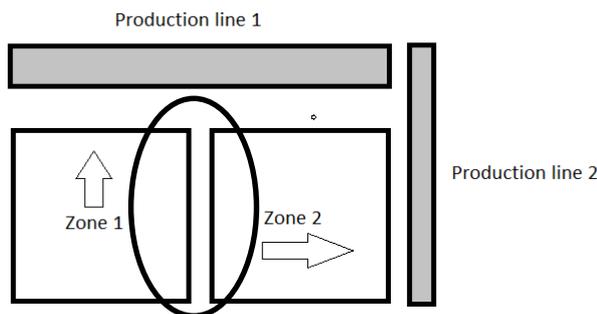


Figure 2- Work zones

From the data collection it was however found that one of the zones had a significant higher amount of workload, for future reference this zone will be called “zone 2” while the less stressed zone will be called zone 1. The buffer zone will be referenced as Zone B. This means that the highest amount of workload was found in the same zone throughout the data. Sharing assignments from zone 1 will therefore be rendered useless. Through an analysis of the workload data it was concluded that the zones followed the characteristics of standard deviation (Mattson, 2003b). The analysis also shows that the standard deviation was proportional to the average amount of assignments. To document the theoretical results and decided the size of zone B the effects of the system is calculated. The effects are documented by studying the proportion of the successful attempts. Result is generated by studying the workload distribution for one hour. A result is considered successful if the workload is equal. Equality is achieved when:

$$P(x) = N_1(\mu_1, \sigma_1) + N_B(\mu_B, \sigma_B) \geq N_2(\mu_2, \sigma_2)$$

X represents the size of zone B while P is the probability that the statement is true. The character of the subscript represents the work zone. For example μ_1 is the average number of assignments in zone 1 while σ_2 is the standard deviation in zone 2.

Zone 2, currently consists of seven different rackets, which all includes about 40 kitting rackets with a warring number of split numbers of split rackets for small pallets as well as some combined rackets for larger pallets. By increasing the size of zone B by one racket at a time and calculate the proportion of successful attempts the effects of the buffer zones are documented. The proportion is illustrated in Figure 3. The Y-axis shows the proportion of successful attempts while the X-axis shows how many rackets are included in zone B.

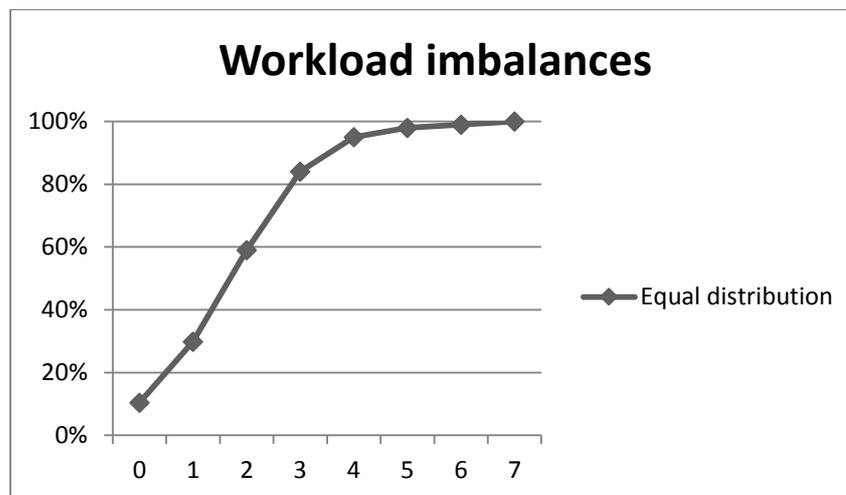


Figure 3- Workload imbalances

Workload imbalances can be decreased by increasing the workload buffer. However workload buffer also leads to longer traveling distances. This creates a trade-off. To achieve the best possible result with the current resources it is imperative to choose the right number off rackets to reduce the workload imbalances to the greatest possible extent while increasing the travel distances as little as possible. This because both of these can be considered as two different types of waste and should therefore be eliminated (Ohno, 1988). According to Figure 3 the increasing effects of the buffer zone plateaus after about three to four rackets, rendering a bigger buffer zone inefficient since it still increase the travel distance while not contributing to lesser workload imbalance in the same amount. The correlation between increasing travel distance and bigger work zone is proven in chapter **Error! Reference source not found.**. A relation like the one between travel distance and reduced workload imbalances is known as a trade-off situation where is important for the overall performance to find a solution where a balance between the two parameters find the optimal solution (Slack & Lewis, 2011).

It is also imperative to point out that the workload imbalances is less in the cases where workload imbalances are smaller when they occur. This further stresses the positive effects of a buffer zone but it also lessens the need for a high number of

rackets in the buffer zone. This makes three rackets a sufficient number for the work zones.

4. Conclusion and Discussion

4.1 Conclusions and recommendations

The state of efficiency related to travel distance. The travel distance for kitting operator has been measured in appendix 2. This distance could later be used as a comparison for the new layout. By using a presumption of 50% of the time spent by kitting operators the output of the focal process can be evaluated.

By using the analysis from appendix 4 a benchmark for travel distance can be established for comparison with the proposed system of grouping pallets based on kitting location. Table 1 shows the proportions of travel time in the replenishment process which will be essential for evaluating the efficiency increase in RQ2.

Workload imbalances will be measured by frequency. Figure 3- Workload imbalances shows how the frequency changes after the size of the buffer zone. It shows that Zone 2 has higher workload imbalance in 90% of the cases while 10% leads to higher workload in Zone 1.

Warehouse layout can be designed through the principles of family grouping. By grouping according to destination travel distance can be decreased. This will decrease the labor needed to perform the tasks of storage. This excessive traveling can be categorized as waste and should according to the principles of Lean be eliminated.

Efficiency is a ration between input and output. In this case it will be measured through labor and customer value. By eliminating travel distance the input can be said to decrease. This will increase the efficiency. By also adapting the layout to the next process customer value will increase. This can be especially favorable in a flow where the next process is more resource intense, since the effects will be amplified with the intensity of resources.

Workload imbalances can be reduced through sharing of workload. By progressively increasing the amount of shared workload the frequency of workload imbalances can be reduced. The effects of shared workload are however not proportional to the shared amount as illustrated in Figure 3- Workload imbalances. Since sharing workload will lead to longer travel distances a trade-off situation emerges. This means that a complete sharing of workload might not lead to the best results. Instead, sharing a portion of the workload based on the relative effects of travel distance and workload imbalances and company goals will be the best approach.

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RESEARCH ON THE PROFIT MODEL OF FOURTH PARTY LOGISTICS (CASE STUDY OF COMPANY Y)

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Abstract

With the popularity of the Internet and the information degree deepening of the society, the requirement of consumer is becoming diversified timely. Meanwhile, with the globalization of economy, the supply chain is also globalization and transparency as well as the market demand is personalized gradually; the internal logistic of company and the third party logistic has been difficult to meet the logistic needs of consumers due to their internal limitation. Therefore the fourth party logistic came, as the times require.

Even though there are improvements of the third party logistic comparing with the previous logistic mode, however the enterprise faced several problem such as the low capacity to control the logistic, the relations between enterprise and customer was break, the risk of customer information to be exposure and operational risk, the service quality was hard to guarantee, the time limitation of cooperation time between the third party and enterprise, etc. The fourth logistic made a sub-contract of the entire supply chain with enterprises that with the knowledge and capacity in terms of centralized management, information technology, third party logistic operation etc. The fourth party logistic designed a general solving plan of supply chain and responded to investigate and comment the implementation process of the solving plan, which could improve the total operational performance of supply chain.

This paper carried out a SWOT analysis including the conception, feature and the differences of the third party logistic and the fourth party logistic. Then, the paper studied on the operation model, profit model and method selection of the profit model of the fourth party logistic. Through analysis, it is found that the profit model of fourth party logistic including the integration model of supply chain, information sharing model, logistic consultation model and logistic training model. Finally, the paper discussed the selection plan of fourth logistic model by case studies.

Key words: the fourth party logistic; the third party logistic; the profit model

1. Background

With the diversification and personalization of consumer's demand and the information technology has been applied wisely, the logistic service has been developed diversifying and personalizing. The third party logistic enterprise has been difficult to meet the customer's demand due to its centralized professional logistic and also can not provide logistic planning service of entire supply chain for customer. Under such conditions, the fourth party logistic is emerged as a new logistic business model. It's a new logistic model that took place the advantages from the third party logistic and meets the demand of consumer and market. It has become a concerned topic between academia and logistic industry that if the fourth party logistic could solve the problem that the third party logistic didn't and provide the customer with perfect, integrated, low cost and high efficiency of logistic service.

From the existing operation status of the fourth party logistic enterprise, many third party logistic enterprises have changed into the fourth party logistic in order to meet the consumer's demand and solve the logistic problem systematically. However the fourth party logistic enterprise in China is only limited with the information technology and not able to provide a best solving plan for the supply chain at all due to less deepen research and systematic knowledge on the conception, features and operation model of fourth party logistic. The more obvious problem that many fourth party logistic enterprises faced is difficult selection of profit model without a clear profit model.

This paper carried our a comparative analysis on conceptions, features of the third party logistic and the fourth party logistic, as well as the defects of the third party logistic by a case study of Chengdu Yibo Logistic Consultation Co.,Ltd. through a SWOT analysis. Then, the paper analyzed the profit model and its operation model of Chinese enterprises of existing fourth party logistic, the profit affecting factors, the comparison of profit model, the operational risk and the development of profit model, as well analyzed the profit model selection of company Y based on above analysis. Thus it not only provides a new and clear knowledge on the fourth party logistic for the enterprises but also pointed a direction for the development of fourth party logistic, and played a significant role for the traditional logistic enterprise.

2 .Purpose and significance of the research

Since American Accenture Co., Ltd. raised the concept of "the fourth party logistic" up in 1998; there is huge research on the fourth party logistic. Since this concept came into china in 2002, within 15 years, the Chinese researcher has carried out much research on the conception, features, structure, operation model, etc. of fourth party logistic. However, there is little research on the profit model of the fourth party logistic enterprise and the empirical research in this field is also more limited. Under the basis of comparison between the fourth party logistic and the third party logistic, this paper carried a deeper study in terms of the profit model, operation model, profit affection factor, the profit model development strategy of fourth party logistic enterprise by the case study of company Y in order to solve the profit model selection problem for the fourth party logistic enterprise. The author hoped to enrich the theory related to the profit model of fourth logistic model through analysis of case and theory, combined with the analysis of the fourth party logistic enterprise's profit model.

3 .Current study of the research

One scholar named Schlachter raised the concept of “profit model” first in 1996, and it was applied in the income analysis for internet business. In 2002, Dubsson-Tobay et al. considered as investigation factors in four terms include the innovation of product, the management of infrastructure, relations with customer and fiancé, and also defined it as a “company structure and cooperative partner network that could create, sell, deliver the value and relational capital in order to obtain the sustainable profit”; in 2007, the scholar Adrien J Slywotzky et al. defined the profit model as combination and matching mode among the profit factors, they thought that the profit point, profit recourse, profit object, profit leverage and profit barrier are the significant factors to measure the profit model.

Beside, recently the Chinese academia has carried out many research on the competitive ability of the fourth party logistic enterprises, Xue Dong Yi and Wang Hai Feng thought that the design capacity of solving plan for supply chain, the management capacity of good supply chain, the regional covering capacity and supporting capacity with regionalization even globalization are the core competitive capacity of the fourth party logistic enterprise. Yang Peng thought that the coordinating capacity of supply chain, the managing capacity of reform, the rectifying capacity of information technology, the integrating capacity of supply chain are the core competitive capacity of the fourth party logistic enterprise. Luo Wen Ping pointed in 2004 that the core competitive capacity of the fourth party logistic enterprise are from organization sharing and coordinating, integrating function of supply chain, organizing the best capacity to operate the supply chain and self-decision making on operation of fourth organization. Song Hua talked that the fourth party logistic enterprise should not only hold the core competitive capacity in one or several fields of business management, but also have the general managing capacity and coordinating capacity as well as the information integrating capacity. Yang Bao Jun mentioned that the logistic business’s independent operating capacity, managing and designing capacity of supply chain, information integrating capacity, international operating capacity, coordinating capacity with customer are the core competitive capacity of the fourth party logistic enterprise. Dai he Bin pointed that operating capacity of logistic, integrating capacity of supply chain, information integrating capacity, etc. are the core competitive capacity of the fourth party logistic enterprise.

The relevant operation model of the fourth party logistic, Zhang Yu Huan and Huang Shi Xiang provided three operation models for the fourth party logistic including the coordinating operate model, planning integrate model and industry innovation model.

In a conclusion, even there is much research on the fourth party logistic but less research on profit model, profit affecting factor and selection of profit model for the fourth party logistic enterprise. Thus, the paper analyzed the existing development status of the fourth party logistic in China by SWOT analysis and found that the profit resource of the fourth party logistic in China, provided the profit model of the fourth party logistic with the research on the Chinese fourth party logistic.

4. Methodology

The research in this paper included the literature review, inductive analysis, and analysis and case studies.

First part is the literature review, through library, computer and internet searching to collect the research paper in the relevant on conception, feature, analysis comparison of the fourth party logistic and the third party logistic as well as the operation model, profit model of the fourth party logistic model in order to find the existing research status in this field and study the relevant theory, establish the content of this paper and complete the paper design.

Second part is the inductive analysis. It is comparative analysis to the collected information above such as analysis the third party logistic and the fourth party logistic and the profit model of fourth party logistic and operation model through the case study of company Y, to find out the fact after analyzing the information of company Y, its business scope and other relative information as well as the existing development status of fourth party logistic enterprise and its profit model.

Third part is the SWOT analysis. It analyzed the advantage, disadvantage, opportunity and challenge of the fourth party logistic through the popularized methodology of SWOT in the management science.

Finally is the case study analysis. Taken the company Y as a case study that experienced a development process from the third party logistic to the fourth party logistic, the paper studied the development path and the business scope of the company in the terms of the logistic property, integrating capacity of supply chain, facility and equipment of logistic, level of the information, managing capacity, competitive capacity, information sharing capacity, coordinating capacity, rebuilding capacity of the logistic, personal character, objective requirement, company culture affecting the development demand of company, service quality, service efficiency, service scope and service personalization, etc. Then, the author carried out a comparative analysis by the four profit models including the integration model of supply chain, information-sharing model, logistic consultation model and logistic training model.

5. Conclusions

This paper discussed the advantage of the fourth party logistic enterprise and the profit model of Chinese fourth party logistic enterprise.

First, this paper summarized the basic theory of the fourth party logistic including the conception, features and causes of the fourth party logistic as well as the analysis between the third party logistic and the fourth party logistic. It told that the fundamental cause that appearance of the fourth party logistic is the profit driven, and the direct cause is the limitation of the third party logistic, also the increased competition and the changes of environment played a promotion role. Beside, with the dramatic development of the global economy and the intensive competition, the supply chain is developing into globalization and complexion. The fourth party logistic only provided effective information consultation, information system, logistic planning, management of supply china, etc. but not participate in the actions of the logistic operation. The concept of integrator of supply chain provided the information

sharing service that could be referred or applied to achieve the objective of enterprise such as minimize the cost and maximize the information integration through the successful third party logistic service provider, technology provider, information consultation service and other value added managing service in order to provide the special and effective solving plan for user. It also mentioned the meaning of the profit model of fourth party logistic which made a integration of supplier, producer, distributor, retailer, server consultant to provide a general solving plan of supply chain for logistic enterprise, in order to integrate the resources of all kinds of enterprises, standardized management, professional operation and achieve the economic profit.

Then, the paper studied on the existing status of the Chinese fourth party logistic enterprises via SWOT analysis by the case study of company Y. It concluded that there is many external threatens for the fourth party logistic enterprise and less opportunities; meanwhile, the internal advantage was found much strong and the disadvantage was weak. China could take a strategy of combination of SO and ST for the fourth party logistic enterprise, ensure keeping the self-advantage and apply the external opportunity and reduce the external threaten as much as possible.

Third, it concluded that there are four profit model of the fourth party model including the integration model of supply chain, information sharing model, logistic consultation model and logistic training model. It also concluded that the relevant operation model including the coordinating operation model, planning integrated operation model, industrial innovating operation model and dynamic collaborating operation model. Upon such basis, it analyzed the profit model of the Chinese fourth party logistic and provided the selecting suggestions of profit model for the fourth party logistic enterprise.

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**RESEARCH ON THE CHAIN BUSINESS MODEL OF THAILAND
CONVENIENCE STORE TO BE APPLIED IN CHINA
(CASE STUDY OF 7-11 CONVENIENCE STORE)**

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ABSTRACT

As a kind of new retail formats, convenience stores in China's rapid development, and rapidly in China's retail industry to occupy a space for one person. In the increasingly fierce competition in the retail industry, there are also backward logistics distribution, uniform distribution rate problems, these problems lead to profit and scale convenience store in China are far lower than the international large convenience store. In this paper, through the research and analysis of Thailand 7-11 convenience store chain business model, combined with China's actual situation, the future development of China's convenience store model.

The research focus of this paper is the choice of competitive strategy of China's local chain convenience stores. First through the introduction of the research background, enable us to understand the research necessity; then in line with the aim of providing reference for the convenience store chain enterprise development, the first theory about chain operation and convenience stores narrative, provide the theoretical basis for the selection of the competitive strategy of the elaboration of a chain of convenience stores; then, through the analysis of internal and external environment of the local convenience store business, and with the help of the matrix analysis tools and put forward the idea of convenience store chain competitive strategy; finally, based on the case of the chain of convenience stores in China, given the choice of competitive strategy and development proposals. At present, the most important is the domestic chain store enterprises to understand the situation, on the basis of drawing lessons from excellent filling convenience store chain enterprise experience, timely adjustment of the competitive strategy and tactics.

Keywords: Thailand convenience store chain operation; development mode; retail industry

1.INTRODUCTION

As a kind of new retail formats, convenience stores in China's has been developed rapidly and became an significant part in China's retail industry. In the increasingly fierce competition of retail industry, there are also some backward existing such as the poor logistics distribution, less efficiency of uniform distribution rate, whereof such problems caused that the profit and scale of the convenience store in China are much lower than the international large convenience store. In this paper, through the research and analysis of Thailand 7-11 convenience store chain business model as well as combined with China's real situation, to come out a future development model of China's convenience store.

The research is focus on the competitive strategy choices of China's local chain convenience stores. First, the paper introduces the research necessity through the background study. Then, the paper describes the theory of relevant chain operation and convenience store, with the aim of providing reference for the convenience store chain enterprise development, for providing the theoretical basis for the selection of the competitive strategy. Moreover, the paper proposes an idea of convenience store chain competitive strategy through analysis of the internal and external environment of local convenience with the matrix analysis tool. Finally, the paper summarizes the development suggestion for the competitive strategy selection by the case study of the chain of convenience stores in China. At present, the most important thing is that the Chinese enterprises of chain convenience store should clearly understand the situation, with the lesson learnt from successful experiences of chain convenience store enterprise, and timely make the adjustment for competitive strategy.

1.1 Research Methods

- (1) questionnaire : questionnaire survey , market research and data analysis.
- (2) literature : through the collection and analysis of the literature , summarized the current level of research and the future direction of development. And provide a strong basis for the theory of basic research .
- (3) Case Approach : Providing strategies and methods for the problems and deficiencies through case studies .

1.2 Main Text (Major aim and significance)

The consumption behavior has been changed dramatically with the economic development of china and increasing of the per capital income, and the convenience store has been developed rapidly in China, especially in X city which is a city with developed economic, therefore the competition of convenience store becomes more and more intensive. Through analysis and study the Chinese local convenience store in terms of chain managing factors, enterprises business model and etc., with the practical cases, the paper tells how to effectively establish a competitive strategy according to the enterprises real conditions in order to assist improving the core competitiveness of Chinese local convenience store to face the fierce competition.

This paper aimed at assisting enterprises to establish and select the competitive strategy for convenience store through discussing the theory of chain operation, convenience store operation, analysis matrix and competitive strategy with the relevant case studies. Meanwhile, the paper also aimed helping the enterprises to master and establish the method of store competitive strategy, well know the advantages and disadvantages, opportunities and threatens, the existing environment; as well providing the assistance for the future development of enterprises.

1.3 Tables and Figures

Table increasing number of Thailand 7-11 convenience store⁹

Year Number(store)	2012	2013	2014	2015
In Thailand	324	378	402	567
Bangkok	25	33	37	67
Phuket	19	27	30	42

From Table 3-1, the number of 7-11 convenience store in Thailand is increasing by time, especially in the capital city of Bangkok and heat tourism destination of Phuket, where the 7-11 stores are found in every street and soi.

With the modern information collecting method, such information includes the population density in the area, the pedestrian flow in nearby area, and the convenience for the local citizen and the competition in nearby area. The land will be purchased or rented if the local is satisfied after analysis the information, then the exclusive party will operate the store after decoration. Before opening and running the convenience store in Thailand, the first thing is location survey, the following table 3-2 shows the issues should be considered and investigated for address selection.

⁹ Data source 《China Statistical Yearbook 2015》

Table 3-2 Location survey of the convenience store

Issues needs to be considered	Key points for problem settlement
1. Where is my customer? Where are the people where the consumption is!	A、 many visitors?
	B、 what are the visitors working on?
	C、 do they need my service?
	D、 if they need, what kind of products they want?
2、 where is my competitor?	The store that sells the same or the most same products as mine.
2、 if it is the called “Customer focusing place”?	Variety person shall pass this place then such place is called as “customer focus place”.
4、 other factors	A、 if there is a residential village?
	B、 if there is a bus station, walking path and biking way nearby?
	C、 if there is a pollution source nearby?
	D、 if people could identify your logo clearly?
	E、 if there is other commercial facility that with stronger customer attracting ability nearby?

2.Existing problem of Chinese convenience store model

2.1 No clear market positioning

With the economic development and the changes of people’s living behavior, a new type of consuming group has appeared in China (unmarried single person, people who are working in the night time and youth, etc.). Their consumption concept is different with the traditional one, the 24 hours opening convenience store nearby just meets their consumption requirement, from this point, we could see that such group people has promoted the development the convenience store in the early phase. Therefore, the commercial area of convenience store should not over 500 meters away, the best distance is that customer could reach within 5-7 minutes. However, the convenience store in China could not identify the market positioning yet.

2.2 Less branding strategy

In the competitive time of brand, the focal point of marketing competition has been changed to brand competition from the traditional competition of price and quality. Brand management depends on the accumulation of brand capacity to create a good brand image in order to win the customer’s trust and become a brand advantage;

finally to create and develop a brand name through maintenance and enhancement of the brand advantage.

3. Research on the business model of Thailand chain convenience store to be applied in China

3.1 The retail business form has been developed diversify

The retail business form is a format that the enterprise, in order to meet different consumption requirements, combines the relevant components into a different operational model. According to the classification standard of retail business, the retail business are classified into 17 forms including department store, supermarket, hypermarket, speciality store, exclusive shop, shopping mall, convenience store, outlet shop, membership store and so on. Comparing and analyzing the information of China economic census survey, the Chinese retail business has been developed with the following features:

3.2 A variety of industrial formats have been developed dramatically in a short period

From the development process it could be found that the new form of Chinese retail business development didn't follow the normal marketing development rules into the market but nearly appeared together at the same period. From the developed country it can be found that new form of retail business entered into the market in proper order, wherein department store-supermarket-store in a chain operational form-self-service store and so on. The appearance of every new format had one development time interval and each new format has been developed orderly and timely.

3.3 Diversification development

In the past, China applied the "only one type department store for all" and by the traditional counter selling mode to run the business. Recently, the retail business has been developed in a trend of diversification, in which the supermarket, the exclusive shop, the convenience store etc. has been developed significantly. With the deeper development of market economy and the appearance of new scientific technology, the new retail business will be developed constantly. Due to fundamental conditions of the country include China have a vast territory, huge population, unbalanced economic development, and different consumption behaviors of citizens, such condition causes the diversification trend of Chinese retail business in a long run.

3.4 Foreign investment in China retail market has been developed rapidly

The world top 50 retail enterprises such as Metro, Ito Yokado, Auchan, B & Q, DEIEI, Marks&Spencer and so on have been entered into the Chinese retail market, and most of them have passed the recognized 5 years of running-in period and stepped into the rapid expanding phase. The internal retail enterprises created and

developed several business forms such as supermarket, shopping mall, warehouse store, outlet store, convenience store, neighborhood store etc., and constantly improved the existing formats according to the changes of consumption requirements.

3.5 Introducing and focusing the development of new technology

Recently, the constantly updated operation concept and management method, especially the modern technology has been applied widely in the area of commodity circulation, have promoted the innovation and development of retail business. With the improvement of people's consumption level, retail business development has entered into a new combination and innovative phase; the general merchandise business also makes a combination for the specialty store and exclusive store; the supermarket has been changed into a multi-forms (such as outlet, hypermarket, professional supermarket, community based supermarket, convenience store and so on), the retail business is more and more various.

4. Conclusion

The research is focus on the selection of competitive strategy choices in China's local chain convenience stores. First, the paper introduced research background to show the necessity of study. Then, the paper describes the theory of relevant chain operation and convenience store, with the aim of providing reference for the convenience store chain enterprise development, for providing the theoretical basis for the selection of the competitive strategy. Moreover, the paper proposes an idea of convenience store chain competitive strategy through analysis of the internal and external environment of local convenience with the matrix analysis tool. Finally, the paper summarizes the development suggestion for the competitive strategy selection by the case study of the chain of convenience stores in China. At present, the most important thing is that the Chinese enterprises of chain convenience store should clearly understand the situation, with the lesson learnt from successful experiences of chain convenience store enterprise, and timely make the adjustment for competitive strategy. The main actions include:

Carrying out a standardized management

The advantage of chain operation is that the uniformed image could provide a repeating visual effect to form a significant influence for the customer. Thus, the chain convenience store should be unified and standardized for the purchase-delivery-management-service.

Positioning a differentiation marketing strategy

“Convenient” is the most obvious advantage comparing with other retail business. It is very important to make a effective target market segmentation and implement a differentiated strategy when facing a competitor in the chain convenience store. For example, running featured products, increasing the service types, etc. is very useful to promote the development of enterprises.

Establishing a modern logistics service system

The structure of modern logistic service system affects the entire operational efficiency of chain convenience store directly. It could bring the logistic design with high quality and information feedback with high efficiency for the enterprise, to

minimize the operation cost and to maximize the enterprise profit.

Strengthen brand building

In the time that the consumer's brand awareness has becoming stronger increasingly, the enterprise should create their own brand if they want to operate a good business, and set up a good image of chain brand through reasonable management and strategy in order to win the consumer's trust. Meanwhile, not only the enterprise needs to work hard, the government also has to provide the policy and legislation for a better operation of convenience store.

5.References

Literature review of related Chinese research

After the reform and opening-up especially in the time of 1990s, the economic society was developing rapidly and the retail business was booming in China, all kinds of retailers appeared. With such background, many researcher started to introduce and summarize the theory of Western retailer's evolution, or re-explain, or conduct the relevant research to the retailer comparing with the development conditions of Chinese retail business.

Hu Chun Yan (2006), through carrying a survey on retail business in the top 10 Chinese cities, found that the market concentration rate of Chinese retail business is improving constantly, but didn't study and analyze the business's commercial form and the enterprise's organizational form that affect the market concentration rate.

Zhu Tao (2008), through analyzing and studying on the structure of Chinese retailer, mentioned that the Chinese retail business needed a oligopoly market structure under the opening economic conditions. The government shall encourage the Chinese enterprise to enlarge and enhance their business and become a retail giant in order to fight with the international retail enterprise.

Meng Li Feng (2009) etc. classified the theory of retail business evolution into two major groups: recycling theory and environmental theory; then discussed the main problem of the two theories' existing; finally provided the suggestion for such problem.

Shen Jian (2011) etc. told that the improvement of technology, consumer requirement satisfaction and managing innovation play a significant role for the retailer to gain the competitive advantage.

Literature review of related International research

American researcher Malcolm P.McNair (1958) raised a theory of wheel of retailing first. He thought that any type of retailer was starting with the innovative concept, with constantly improvement till becoming mature, then lost the competitive ability gradually till being eliminated. Later, other person explained this theory promptly and enabled people to accept it wisely. This theory thinks that the institutional changes take place periodicity and it's a upward rotating development process. All retailers are operating the business from price demand to commodity combination, then to service demand.

The Germany researcher named Stanley C.Hollande (1966) mentioned the theory of Retail Accordion. This theory thinks that the evolution process of retailers was developed from general store to specialty store, then from specialty store to general store, the process was running repeat, like a accordion. But such repeat is not that simple and machinery, it repeats in a much higher level with new concepts. Therefor, the retailers repeat changes between diversification and specialty and every time a new retailer could be created. According to this theory, the retailers in western country had been developed through five periods: general store-specialty store-department store-exclusive store-shopping mall. This theory could explain the changing process of American retail business, but it didn't explain the co-existing of specialty store and general store, and less explanation about the reasons of increasing and decreasing of products combination.

American retailer specialist named Davidson (1976) developed the life circle theory, similar with the product life cycle theory, the retailer has a process from production to degeneration. With time changes, the retailer will experience the four phases include introduction, development, mature, degeneration as the product life cycle.

Japanese researcher named Masao Nakanishi 1966 thought that technical innovation is a fundamental drive of the revolution of retailer, and brought the concept of "Technical boundary line. This theory thinks that the combination of retail price and service level is subjected to the existing technology level (include logistic, information and managing technical level, etc.), the minimum retail price that reached one service level is the technical boundary line.

In addition, the western retail researcher developed crisis reaction model, general theory of environment and period, general theory of environment and conflict, general theory of retail opening system, regulation theory, etc. These theories focused on the research of retailer development in modern western developed countries, explained the revolutionary path of retailer in western countries. They have a relevant theory value but each theory has their own defect that can't explain all situations of retailer's revolution development.

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**STUDY ON IMPROVEMENT OF THE SERVICE MARKETING QUALITY
ON THE BASIS OF SUPPLY CHAIN DEMAND FORECAST
(CASE STUDY OF CHINESE L TEA GROUP)**

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Abstract

With the world economic development, the competition is not the competition between the enterprises in the 21-century but is a competition between the supply chains. Therefore making a better supply chain is the must-selected road of the modern enterprises. This paper analyzed the meaning of the supply chain management to the service marketing through the supply chain management, demand forecasting and service marketing. The article discussed the importance of the supply chain management by the existing marketing status of L group and its problem. The paper mainly discussed the research methodology of demand forecasting, correlation analysis and regression analysis, through a case study of K tourism company which the applied those two analysis methods, making a foundation for the affecting factors analysis of tea demands later. It also provided a pathway for the service marketing quality improvement of L group and hoped that the research results could give a theoretical guidance on service marketing improvement of the Chinese tea industry.

Keywords:supply chain, demand forecasting, quality of service

1. Literature review

The relevant of demand forecasting theory is much mature but the demand model and its predicting method in the different industry are not the same. Looked back and summarized the forecasting model of energy demand including the traditional method such as the time-series regression, econometrics, model and its soft-calculation technique such as the fuzzy logic, genetic algorithm, nerve net are all applied into the management of demand forecasting. The support vector regression, the ant colony and particle swarm optimization, the bottom up model, etc. are applied into the energy demanding management national and regional. Occurrence of a new forecasting model overcame the shortcoming of the traditional models. This model could be applied in the green car technology to verify the realistic and also could be applied into the chain reaction research which of the green car technology to the reduction of the greenhouse gases.

Wang Chong (2015) studied the decision on the supply chain management of flesh agricultural products in the terms of option contract in his article titled “Study of the decision on the supply chain management of flesh agricultural products in the

terms of option contract". The article introduced the option contract that is financial derivatives into the decision on the supply chain management of fresh agricultural products. It also applied the random stock theory, game theory, numerical simulation and other theories and methods into the decision on the supply chain management of fresh agricultural products under the call option, the pull option and the double option in the terms of option buyer and option seller.

Li Da Wei (2004) discussed the relationship between the supply chain management and the enterprise competition, he thought the competition of supply chain has become a new trend of the enterprise competition. He pointed that China is in the initial phase of enterprise supply chain management, lack of understanding on the core thought to the supply chain management, and it is difficult to implement the supply chain management in the view of strategy.

Chen Miao Hua (2015) carried out an analysis by a case study to analyze the Shanghai Aimuyi company, with the reference that revealed the existing problem on the supply chain management in this company, and provided the relevant solutions.

Tian Yi Hui (2013) used model to simulate the data of selected green supply chain management, basing on the diffusion of innovation, and analyzed the Chinese green supply chain existing management diffusion status.

Zhu Chang Lei (2013), basing on the relevant literature reviewing on the supply chain management of SMEs, risk management and multi technology etc., established several supply chain management system and provided a feasible plan on the supply chain effective management for SMEs through the practices of supply chain management of SMEs with the consideration on risk factor of supply chain.

From the above literature review we could find that the demand forecasting research is mainly focusing on the application of demand model and its different forecasting methods. However, the research of demand forecasting on the supply chain is the innovation point in this paper, it also analyzed the demand factors that affecting the service marketing quality of tea. This paper, through analysis of the application of demand forecasting in the tea production with the case study of L group, analyzed the affecting factor of demand forecast via the relation and regression analysis and made the relevant conclusions in order to provide suggestion on service marketing quality improvement for L Group.

1.1 Introduction on forecasting method

Demand (as one significant preliminary data in the supply chain) is becoming a core power to promote the entire supply chain's operation (Kalchschmidt M et al., 2006). If could make an accurate forecasting to the demand are playing the most important role on the coordination of entire supply chain. The demand forecast is one evaluation that made for pre-demanding in the special period (Huan xiao Yuan, 2014), it is used for control all uncertain and un-known factors in the supply chain; due to such uncertain factors may affect the future operation model and the decision making of the supply chain, its very important to know such factors. It will provide a qualitative and quantitative method and trusted guidance for the enterprise for the future policymaking (Claro D P et al., 2006). However, due to the complicated

structure of supply chain and the problem of existing forecasting method, it is very difficult to make an accurate demand forecast for the supply chain (Karpak B et al., 2001). Recently, many scholars are working on the research of demand forecast national and international.

1.2 Quantitative methods for demand forecasting

The quantitative forecasting made the judgment for the future market by using a statistic method with the historical data. The main features of the quantitative forecasting are: accurate prediction, less affection by the subject, but forecast method is not flexible and is not easy as well needs high requirement to the data and information. The method is mainly include: time series forecasting method, the causal method, the regression analysis method and basic superposition method etc.

(1) Time series forecasting method

This method ranked the historical information and data by time and formed a series number, then extended the change of this series number and calculated to judge the development trend of the future market. This method is convenient and capable but can not reflect the casual relationship of things, and need make a supplementary and rectification by other forecast method.

(2) Causal method

This method used the causal relations among all factors in the marketing campaigns to find out the main causes that affect the forecast and calculate the quantitative relation between the reason and result, then obtained the forecast value according to such quantitative relation. This result is much accurate but need a certain mathematic knowledge and computer technology.

(3) Regression analysis method

This method, through analysis the cause of changes on things development, found out the relation between reason and result by a math model to forecast the future trend of the things. When the research on the causal relations only involved with dependent variable and one independent variable, such regression analysis is called simple regression analysis; when the research on the causal relations only involved with dependent variable and two or two more independent variables, such regression analysis is called multiple regression analysis. Beside, according to the function expression of relations between dependent variable and independent variable, the analysis is divided into linear-regression analysis and nonlinear regression analysis. The regression analysis forecast predicts the future value according to the changes of one or a set of independent variables by using the regression analysis method. The regression analysis needs to create a regression equation to describe the relations of variables. According to the number of independent variable, it could be a simple regression analysis but also could be a multiple regression analysis. According to the fact of the research, it could be a linear regression analysis but also could be a nonlinear regression analysis. The nonlinear regression equation is normally could be solved by the linear regression equation through the mathematic method.

2. Main purpose and significance

According to the strategy of competitor and the existing problem of L Group, it analyzed L Group on how to improve the service quality by demand forecasting and hoped to help L Group to take the market value and make business profit.

This paper, through the research on the existing business model of L Group, pointed the demand forecasting shortage on the supply chain in the business model. It concluded a strategy to improve the service marketing quality for L Group through the regression analysis combining with the analysis on the demand forecast affecting factors in order to provide a reference and guidance for L Group. Meanwhile, the author hoped that this paper could provide assistant for other enterprise that with the similar problem and improve the service marketing quality for tea industry.

3. Applied research methodology

The methodology in this research mainly is comparative research, literature review and lesson learnt summarize. Through method of survey and summary, the author analyzed the data and then found the conclusion. Enterprise research, analyzed the development process of L Group based on the subject or topic of the research, analyzed the existing business status of L Group from a perspective of objective and scientific. Evidential investigation is a method to collect the relevant experiences of research objective or the material of operation model planned, purposeful and systematic. The author contacted the representative of L Group directly and obtained the development trace record of the enterprise, including business performance, product's color and pattern etc. The paper pointed that the different factor plays a different role to affect the demand through the regression analysis method. It also found that the enterprise such as L Group should take measures to improve the service marketing quality through the inductive method.

4. Conclusion

This research found out the problem and its causes in the market for L Tea Group, through analysis of the existing development status of Chinese Tea industry and a macro and micro environment analysis of L Tea Group, provided the strategy on market business for L Group with the guidance of brand market, green market, integration market and people market. The conclusions are:

First, L Tea Group is facing a market competition and the competition from the same industry, there are many substitution products in the market, and the consumption idea and behavior are changing timely. Thus, L Group should make a market planning and market strategy selection through the analysis of competitor, consumer and the company's real condition.

Second, the type of L Group's product is too much in the market, lower brand identification rate, pricing system is chaotic, market supervision and sale channel is insufficient, market opening capacity is limited and promotion is insufficient, lack of innovation etc. Such defects are caused by the capacity of the enterprise and its business scale. The business management of L Group is lack of strategic plan and still applying the traditional business operation model. Thus, L Tea Group needs to

enhance the strategy planning and improve the business model to obtain the core competitive advantage.

Third, L Tea Group shall integrate the business model in the future development through general application of the brand market strategy, green market strategy, integration market strategy and people market strategy. Then, the company should take the strategy to promote the market development and achieve the sustainable development of the enterprise through establishing a scientific and reasonable product selling plan, selecting a target market, enhancing the staff's professional training and promoting the own brand establishment.

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**STUDY ON OPTIMAL ALLOCATION OF THE CITY BUS LINE
TRANSPORTATION CAPACITY
(A CASE STUDY OF KUNMING BUS GROUP NO.919 AIRPORT BUS LINE)**

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Abstract

The City bus line is an important part of urban public transport system, which directly affects the level of urban living and the quality of the resident life. Bus transport capacity is an important part of the public transport operation, is the main target of public transport companies operating management. The rationality of the bus transportation capacity allocation not only directly affects the economic benefits of the public transport companies, but also affects the whole urban transport level and the public travel efficiency.

The thesis study on the research on public transport system development, the public transportation system operation and management, the public transportation resources and capacity allocation, capacity allocation objectives and the influence factors of the capacity allocation, and then analyzes the characteristics of the bus line, composing elements and the target and the influence factors of the public transport capacity allocation, to build the total capacity model and line transportation capacity allocation model.

On this basis, select Kunming bus group No.919 airport bus line that the punctuality rate is low, the car does not match the number of passengers and the satisfaction problem as the concrete research object, with the route passenger and vehicle capacity as the core. Through the line passenger traffic observation and data collection, found specific factors that affect the capacity allocation, and build the line capacity allocation model, structure optimization model and transportation capacity prediction model for optimizing the efficiency of the capacity allocation, so as to improve the economic benefit of this line, to facilitate passenger travel. To explore the general rules of the city bus line transportation capacity optimal allocation through the line capacity allocation research, provide idea which is the optimal allocation of the city bus line transportation capacity for other city, and improve the capacity of the city bus line transportation.

Key words: bus line; capacity allocation; bus management

1. Research status

In 2000, Jin Wenzhou used the optimization method, and forecast transport demand is reasonably assigned to each passenger station, put forward the specific plan of the passenger transport station system operation organization. In 2003, Zhang Qingnian's modern nonlinear mathematic methods research of the public transit bus scheduling decision system that using the modern nonlinear mathematic methods to determine the public transportation bus scheduling scheme for the bus scheduling which is non deterministic integrated global optimization characteristics. In 2004, Chenqian's the departure frequency optimization model design, the departure frequency model of the public transport bus is the goal of the maximum benefit satisfaction degree, the minimum degree of waiting for the passengers, and the minimum degree of the passenger congestion. In 2006, Feng Shumin analyzed and summarized the city public transit bus overall configuration method base on the public transit bus allocation research, and introduced the concept of time distribution bus, analyzed the general distribution method that the bus line was not only meet the quality of service, but also to ensure that the minimum number of bus distribution. In 2007, Hu Xinghua's bus line capacity allocation methods, which put forward the calculation method of passenger choice models and the probability formula, the maximize coordination degree of passenger demand and vehicle configuration as the objective function to establish the transportation capacity structure optimization model. In 2009, Huo Miaomiao put forward the grey theory in the study of the conventional public transport capacity whole distribution.

In 2010, Nie Shigang used the gray system theory that established the GM (1, 1) grey prediction model of the public transport capacity. In 2011, Hang Shiyin proposed a management algorithm for operation scheduling of LPS digital intelligent bus dispatching system. Find the reasons that affect the quality of operation and scheduling management, and dynamically track and revise the data of operation scheduling, so as to achieve, so as to achieve the purpose of the transport capacity optimal allocation. In 2012, Xu Hui studied time compilation methods of the equilibrium maximum passenger section carrying capacity in accordance with the line capacity allocation and balance capacity. And described the preparation process of the timetable, put forward the feasible approach for the rational use of public transport capacity in the operation and management.

Based on the review of previous studies on public transport capacity allocation can be found that although many related research, but most of them remain at the macro level, meso and micro study is relatively less, and most of them for the theoretical research, empirical research is lacking.

2. Research purpose and significance

The bus line is an important part of the whole public transportation system. In the bus operation management, bus line capacity allocation is an important issue, equipped with bus line capacity is reasonable not only directly affect the bus company's tight economic benefits, but also related to city traffic as a whole operation efficiency and passenger travel efficiency. Bus transportation system configuration is not reasonable will cause the mismatch between the actual transit capacity supply the demand of actual volume, resulting in the waste of public resources, can't be good to meet the travel needs of the public, is not conducive to the service quality improvement for the bus company. Thereby further reducing the share of public

transit, prompting the growth of other vehicles (cars, electric cars), from the negative increase congestion on the roads.

Therefore, it is necessary to research the bus line capacity allocation methods of the bus in the operation and management. Through scientific effectively passenger flow survey methodology to understand the rules of the passenger travel at different periods, combined with two aspects which are the public transport enterprises effectiveness and residents travel choice, to establish the optimization model of the vehicles allocation in the bus line and to achieve optimal allocation of the public traffic capacity, in order to find the best balance of the enterprise benefit and social benefit and achieve a win-win situation. It is of far-reaching significance optimize the bus transportation system configuration, improve transit service quality level, and improve the efficiency of the whole social resources utilization.

The research significance of this thesis can be divided into two aspects which are theoretical significance and practical significance.

Theoretical significance, the public transport system is an important part of urban transportation system. The operation and management of the public transport system is not only directly related to the economic benefits of the public transport company, but also directly related to the social benefits of urban transportation and passenger travel efficiency. Therefore, the operation and management of the public transport system is always a hot issue in academic research. And in the research of public transportation operation management, the transportation capacity allocation is a core problem. But most of the previous related research at home and abroad, research on bus system capacity allocation are based on the whole bus system as the research object, and focused on the macro level. This research will be used bus lines as the research object. With the case study and empirical research method, select Kunming bus group No.919 airport bus line that the capacity allocation efficiency is poor as the specific research object, according the micro and meso level to explore the factors affecting the allocation of bus line capacity. And through the total capacity forecast model, and the line transport capacity allocation model to achieve the optimal allocation of bus line capacity. Enrich the empirical research on bus line management, deepen the research of capacity allocation from the micro level, for of the research on the bus operation management system and the whole traffic line operation management, has important theoretical significance.

Practical significance, this thesis analysis the case of Kunming bus group No.919 airport bus line, through model construction to optimize the allocation of city public transportation line. This has realized the significance of the economic benefit and the social benefit. From the economic benefits, through the optimization of bus line capacity allocation can improve the utilization rate of the bus line vehicles, directly improve the bus company benefits; from the social benefit, through the optimization of bus line capacity allocation can improve previous arrival time that is not allowed and mismatch problems, to improve urban public transport line service quality level, convenient for passengers to travel, and to further improve the level of the city traffic.

3. Research ideas and methods

First, through literature research method and system analysis method, analysis the thesis and monographs related traffic operation and management system, bus system operation and management, bus transportation at home and abroad, learn the theory about the public transport capacity allocation and the public transport capacity public transport capacity allocation. And on this basis, combined with the characteristics of bus line, analysis of the influencing factors of bus line capacity allocation.

On the basis of the above, put forward the related hypothesis about the total capacity forecast model and the line transportation capacity allocation model, and set up the goal of the two models, and analyzed the content of the hypothesis.

And use the Kunming Public Transport Group Co., Ltd. No.919 airport bus line as a case study, through field investigation, statistics, analysis the current capacity allocation, and on this basis, by using the total capacity forecast model and the line transportation capacity allocation model to analysis the total capacity of the line and the capacity allocation, and puts forward the optimization scheme.

The research content of this thesis mainly includes four parts:

(1) Through literature analysis and system research to analysis the related theory, and understand the characteristics of the bus line and the factors affecting the allocation of the bus line capacity.

(2) Through the analysis of the influencing factor which is the he total capacity of the bus line, through the research of the total allocation method of the bus line capacity, to build up capacity forecast model.

(3) Focus on the total passenger volume, passenger comfort, coverage, departure frequency, vehicle speed and other factors, establish the transportation capacity allocation model.

(4) Using the Kunming Public Transport Group Co., Ltd. No.919 airport bus line as a case study for empirical research, investigation and statistics, analysis of the current capacity allocation, and on this basis, by using the total capacity forecast model and the line transportation capacity allocation model to analysis the total capacity of the line and the capacity allocation, and puts forward the optimization scheme.

4. Conclusion

The city bus line is an important part of the city bus line system and the whole urban traffic system. Bus line capacity allocation situation not only directly influence to the quality of the city's urban residents travel efficiency and traffic, but also directly influence to the bus company's revenue with the double significance of the economic and social benefits.

The bus line capacity allocation as the research object, analysis the transit system development and operation management, transit system development and operation management, transit system development and operation management, allocation

principle, significance and the related research. Specifically analysis the public transport lines characteristics, capacity allocation objectives and factors affecting the capacity allocation. It is found that the bus lines capacity allocation is influenced by external factors which are the level of urban economic development, the number of residents and consumption level, government policies and internal factors which are passenger flow, demand, site settings and line length. Therefore, through the study of various factors affecting the capacity allocation to build capacity forecasting model and line capacity allocation model, and to explore the line arrangement and site settings. Under the guidance of the theory, using the Kunming Public Transport Group Co., Ltd. No.919 airport bus line as a case study for empirical research, found the many problem that the site settings is not reasonable, operation time arrangement unreasonable, punctuality is low, put forward reasonable arrangements for the bus line stops with the theory mentioned above, the operation time should be according to the timetable to adjust and improve the operating efficiency of the vehicle and increase the punctuality rate.

The thesis is combined with theory and practice, through theoretical analysis and empirical research to explore specific bus lines capacity allocation methods, try to put forward reasonable suggestions for the bus company about the bus line capacity allocation, and to improve the economic benefit and social benefit.

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STUDY ON THE MARKETING MODE OF THAILAND AGRICULTURAL PRODUCTS IN CHINA

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Abstract

The trade has a long history between the between China and Thailand, according to historical records of Thailand in the middle of the seventh Century. After the establishment of The People's Republic of China, China and Thailand formally established diplomatic relations in 1975, the leader's frequent visits between the Thailand and China, private exchanges have become increasingly close. Especially after the adoption of economic reform and open-market policies, the economic and trade cooperation has increased significantly between China and Thailand, and the bilateral trade volume has increased year by year. Chinese is Asia's largest exporter of agricultural products, Thailand is the second largest exporter of agricultural products in Asia. With the China-ASEAN Free Trade Area established, and implementation of the "Early Harvest Program" and "Agreement of the people's Republic of China and the government of the kingdom of Thailand to speed up the abolition of tariffs in the framework of the comprehensive economic cooperation between China and ASEAN", China and Thai agricultural products trade has made more rapid development.

Thai agricultural products perform well in the Chinese market, this study will focus on management, marketing and other related theories as a guide, using the literature review method, case analysis method, comparative analysis method, on-the-spot investigation method to analysis the Thai agricultural products in the Chinese market and understand the "marketing model" of Thailand agricultural products in China, analysis the problems existing in the marketing. And put forward the "marketing model" of Thailand agricultural products according to relevant international experience.

The research will study the "marketing model" of Thailand agricultural products in the Chinese market, put forward a set of countermeasures that can solve the

problems of the Thailand agricultural products in Chinese market. Believe that to better help trade cooperation between the two countries in the future.

Keywords: China and Thailand trade; agricultural products; marketing mode

Literature review

With the establishment of China ASEAN Free Trade Area, A lot of the domestic scholars study on the ASEAN trade which some scholars research also involves issues related to the agricultural cooperation between the China and Thailand. And a Japanese scholar Takeuchi Takashio research the agricultural business in Thailand and Thailand northeast rural economic and social development made in the thesis that is the Thai economy development and northeast rural, points out that the level of industrialization in Northeast Thailand and other remote rural areas need to be improved.

Yoshino Fumio analyzed the effect of CAFTA in the “China and the ASEAN trade status”. He also pointed out that agricultural products trade has increased considerably between the China and Thailand, but there are still many non-tariff trade barriers. Sun Xiaodan (2003) analyzed agricultural products export structure similar of the China, Thailand and other ASEAN agricultural products export country, export ability to respond to changes in demand and export market diversification in the export structure of agricultural products between China and ASEAN countries, using the market similarity index, the demand response index and the trade dispersion index to compare the agricultural products export of China and Thailand in the world market. Sunlin (2003) calculated revealed comparative advantage index of the China, Thailand and other ASEAN agricultural products export country. The competition and complementarity of agricultural products were detailed analysis between China and ASEAN, China ASEAN agricultural products trade based mainly on the complementary. He also studied the changes in China and the main countries of ASEAN agricultural products comparative advantage, and pointed out that China should strengthen economic and trade cooperation of agricultural products with ASEAN to alleviate the resource constraint problem of agricultural production in China.

Lu Lingli (2004) described the status of the China - ASEAN agricultural trade in the comparative advantages of agricultural products between China and ASEAN. By using the revealed comparative advantage index (RCA), the classification of major agricultural products in China and ASEAN countries was calculated, analyzed the export comparative advantage of the different type agricultural products in China and the ASEAN countries, including Thailand. It is pointed out that the trade were diversified with the continuous expansion of agricultural trade scale between China and ASEAN, comparative advantages of the main agricultural products was mainly characterized by complementary. Although China's comparative advantage in agriculture was not as good as Thailand and other ASEAN countries, but in the processing of agricultural products were shown to very strong comparative advantage. The trade issues has been studied by many researchers after the implementation of the Early Harvest Program and the China-Thai agricultural products agreement. Chun Lin Wang (2004) pointed out that the product both China and Thailand product export volume was increased in each other's markets after the implementation of the Early Harvest Program, but compared China products with weak inferiority. Farmers in the southwest provinces have been greatly affected. Song Haiying (2004) calculated the vegetable competition between the China and Thailand by using the export similarity index from the market and product and pointed out that the competition was very fierce, analyzed points out that the competition is very fierce and put forward corresponding suggestions for put forward corresponding suggestions. Zhouyingheng (2004) analyzed trade creation and trade diversion in the Analysis on the influence of the agricultural products trade after the implementation of the China-Thailand Agricultural Products Agreement, researched the influence of the agricultural products trade for China, Thailand and other countries after the implementation of the China-Thailand Agricultural Products Agreement. Ben Zhi Shi (2004) analyzed the welfare effect of the agreement in the Thai fruits and vegetables zero tariff and its effect, and put forward some corresponding suggestions for the southwest provinces. And some research focused on how to get out of agriculture in our country. Guo Tiezhi (2005) analyzed the Chinese investment in Thailand industry in the analysis the Chinese investment in Thailand industry. It is pointed out that agriculture was one of the focal points of the Thai capital, and put forward some suggestions that our country in the Thai agricultural investment should focus on the field of China's shortage of production factors, the better use of Thailand's natural resources. Cheng

Chao also pointed out that the investment in agricultural products processing industry in Thailand get more profitable opportunities in the Thailand investment prospects, investment in the remote areas of Thailand get more preferential. In addition, southwest provinces is the vanguard of the China- Thai cooperation in agriculture. Therefore, some scholars focus on the southwest provinces and Thailand to carry out agricultural cooperation. Such as, Sun Kang and Long Wei used the Mekong sub regional cooperation projects as an example in the Strengthen Yunnan -Thailand International Agricultural Cooperation, illustrated the agricultural cooperation opportunities and the main form of the cooperation of between the Yunnan and Thailand.

Overall, the domestic and foreign scholars have been numerous research results in the field, but most of the researches only focus on one aspect of cooperation, such as trade cooperation. So far, there is no comprehensive study on the China- Thailand agricultural cooperation, and no study on the Thai agricultural research in marketing mode of China, but their research results have laid a good foundation for our research.

Research objective and significance

1. Research objective

This study will investigate and find out the main key and the existing problem of the current Thai agricultural products in Chinese marketing for Thai agricultural products in the Chinese market marketing situation, develop relevant programs in the Chinese marketing for the Thailand agricultural products. It is hoped that analysis the problems and countermeasures of the Thai agricultural products in Chinese marketing to provide reference and thinking for trade cooperation and exchanges between the two counties, make the trade exchanges between the two countries is more reasonable, reduce trade conflicts and adverse effect.

2. Research significance

Theoretical significance: The research of agricultural product marketing mode needs to be applied to the theoretical knowledge of marketing, management, and agricultural product marketing also involves all aspects of economic market, and closely related to economics. Combined with the theory of the marketing,

management and economics to study the Thai agricultural products in the Chinese marketing, not only supplement and explain the relevant theory, but also help to enrich and develop marketing theory and method research, and provide theoretical reference and academic reference for similar research.

Practical value: Agriculture occupy an important position in the national economy of China and Thailand, China and Thailand as the Asian neighbors, in the similar level of development. There are some similarities in the aspects of production tradition, infrastructure and technology level. The agricultural products trade between the two countries has played an important role in the agricultural cooperation between China and ASEAN. Study of Thailand's agricultural products marketing model in China, it is help to understand the Thai agricultural products development in the Chinese market, also can better guide the cooperation practice of the agricultural products trade between the China and Thailand. Secondly, we should correctly understand and comprehensive understanding of Thai agricultural products development in the Chinese market that also helps to better development and cooperation of the trade, investment and other areas in the future, can give full play to the advantages of different countries, so that two countries have the better cooperation and development under the background of the ASEAN Free Trade area

Research ideas and content

1. Research ideas

The main idea of this research is to put forward the problem, analyze the problem and solve the problem. This article will first introduce the background, research significance and the content and purpose of the study; secondly elaborate the related concepts and theories. And on this basis, analysis the Thailand agricultural products marketing mode and existing problems, then put forward the countermeasure and suggestion of Thai agricultural products marketing mode according to the experience and Enlightenment of foreign agricultural products marketing model.

2. Research content

Study on Thai agricultural products in the Chinese market marketing that is the main research content, analysis the problems of Thai agricultural products in China marketing, and on this basis, it is to put forward practical and effective measures to deal with. Firstly, the research background, significance, research content and purpose of the study are described in detail and the research methods and writing ideas are introduced in detail. Secondly, introduces the theoretical basis of the study, defines the concept, summarize the literature at home and abroad. Thirdly, elaborate the Thailand agricultural products marketing mode and existing problems, mainly including the role and significance of the Thailand agricultural products in the China marketing, operation mechanism of the Thailand agricultural products in the China marketing, Thai agricultural products marketing model in China and main characteristic, case analysis and evaluation of the Thai agricultural products marketing model in China and the existing problems. Finally, put forward the countermeasures and suggestions of the Thai agricultural products marketing mode.

Research method

1. Literature research method

Mainly refers to the collection, identification, collation of the literature, and through the literature research to come into being the scientific understanding method. The research inspect and list the related theories and literatures of the agricultural products marketing through books, newspapers, magazines, the database and network search, and takes it as the basis for this study.

2. Exemplification

In this study, we will use the exemplification to evidence the Thai agricultural products mode in China marketing, with the example of some agricultural products to indicate Thailand agricultural products marketing in China. And demonstrate from the sample to the whole, to make the study more persuasive.

Conclusion

About trade and marketing, has been are research important content, there are also a lot of research results, but agricultural products marketing problem did not get wide attention. Although with the deepening trade cooperation between the China and Thailand, China and Thailand agricultural products trade have been paid more and more attention, but relevant research is still relatively less. From the relevant literature

review, China and Thailand trade is complementary, but China and Thailand are large agricultural country. Agriculture occupy very important position in the country.

This study analysis the Thailand agricultural products marketing model problem combine with the marketing, management theory, and put forward the improvement measures which supplement the marketing theory.

The trade has a long history between the between China and Thailand, according to historical records of Thailand in the middle of the seventh Century. After the establishment of The People's Republic of China, China and Thailand formally established diplomatic relations in 1975, the leader's frequent visits between the Thailand and China, private exchanges have become increasingly close. Especially after the adoption of economic reform and open-market policies, the economic and trade cooperation has increased significantly between China and Thailand, and the bilateral trade volume has increased year by year. Chinese is Asia's largest exporter of agricultural products, Thailand is the second largest exporter of agricultural products in Asia. With the China-ASEAN Free Trade Area established, and implementation of the "Early Harvest Program" and "Agreement of the people's Republic of China and the government of the kingdom of Thailand to speed up the abolition of tariffs in the framework of the comprehensive economic cooperation between China and ASEAN", China and Thai agricultural products trade has made more rapid development. Thailand is an important agricultural trade partner of China. According to the according to China's Ministry of Commerce statistics, China and Thailand bilateral trade volume in 2011 has been as high as \$4.71 billion, with an average annual growth rate of 21.7%. Among them, especially the Thai fruit exports to China amounted to a huge, China imported fruit exceeded \$4.3 billion. Thailand led the origin country of imported fruits, but also is the only country to China's exports more than 1 billion. Therefore, it is a very important problem to study the marketing mode of Thailand agricultural products in China.

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THE INSPIRATION OF BUSINESS MODEL FROM CHINESE INTERNET CAFE TO THAI INTERNET CAFE

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Abstract

Recently, with the constant development of economic society, the cyber culture market has been developed rapidly with its representative of Internet café, which plays a significant role to increase the communication of social information, improve the quality of technology and culture, promote the economic development. I started to consider the Thai Internet café after coming to study in Thailand; one of the best Thai internet service provider is Webnet. They could provide a temporary Internet account, you can purchase one year of surfing internet in any one of Webnet café, the price is also good as the other internet cafes in Thailand. Thai Internet fee is nearly the lowest price in the world whereof 2 baht per minute. Even the price is not high but the scale of Internet café is not big which one café only with the number of computer around 10, the service and environment are also not good as Chinese Internet café, the Internet speed is slower as well. The internet service industry is the significant reflection of the knowledge and economy and takes up a very important strategy position in every country's social and economic development. Meanwhile, with the living level increasing constantly of the Thais, the increasing of needs to spiritual culture has provided a huge potentialmarket for internet culture market. Under such background, the healthy development of Thai internet café is very necessary, how to improve the internet café's service and environment are becoming the must be settled problem, it also provides the reference for the development of Chinese internet café and internet bar constantly.

Keywords: Thai-China; internet bar internet café; business development; comparative research

1.Literature review

There are variety of literature relates to business management, however there are much less research information in terms of internet bar and internet café, the paper discussed the business management after analyzing the literatures.

Comparing with the developed country, Chinese chain business initiative was late. However, the Chinese chain business model has been developed rapidly recently with the economic development.

In 2000, the China Chain Store & Franchise Association has issued a relevant “Article of China Chain Store & Franchise Association” to define the business scope of chain business. Then many specialists started to carry out research on chain business. Zhao Li Min (2015) mentioned Chong Qing Wechat Graphic Design Co., Ltd. as a case study in the book of “Research on Chain business mode of Wechat Graphic Design Co., Ltd.”. This showed a referencing role to the internet bar business. It pointed that the chain business model has been applied wisely in restaurant, hotel, tourism, education, etc., with the rapid developing of economy and increasing of consumer needs on the instant service. Meanwhile, the chain business model is entering into the digital printing speedily and gaining more and more considerations from the investor. Within a few years, the chain digital printing store has been developed timely. Not only the international digital printing store entered into Chinese market, but also Chinese local store was developed dramatically. The chain business model in Chinese digital printing industry is in a initial phase. Recently, the investor in digital printing industry is increasing but the business type is similar, mainly include bid documents, advertising, small batch of books sample, landscape architecture designing documents, etc. Some digital printing shop draws the customer too much in order to gain more business, such condition is not good at the development of digital printing industry. Then setting up the entire digital printing chain business is really necessary under such conditions. The digital printing chain business is a typical product in the trend of digital printing. And it is developing toward the direction of large-scale, standardization and maturity. The digital chain enterprise should identify the market positioning accurately and enlarge the living space through well-using their own brand and technology in order to promote the healthy and rapid development of Chinese digital printing industry. Chongqing Wechat Graphic Design Co.,Ltd. as one of the largest-scaled enterprise in digital graphic printing, same as the majority Chinese graphic printing enterprise, is facing a question on how to establish a chain business model system, identify the business model accurately, enlarge the business scale and became stronger with the market opportunity. This paper found the existing situation of chinese graphic digital printing industry and concluded the advanced method and experiences through literature review. It pointed the existing problem and defect in the chain business management through study on Wechat Graphic chain business model, and proposed improvement strategy for such problem and its causes, established a scientific, operational, effective chain business model system. It also provided a reference for the Chinese enterprises that run the business by chain business model.

2. Research purpose and significance

2.1 Research purpose

For the development of Chinese internet bar during the past 20 years, the net bar is a major component of cultural industry and plays a significant promoting role for the cultural industry development. However due to the change of external environment and the limits of traditional extensive operation mode, the market of internet bar was declining dramatically since 2012. Therefore, how to break the traditional business model through change the business ability is becoming a major barrier for the government and internet bar's owner. For the Thai internet bar, as a significant Buddhist country in Southeast Asia, the internet development is affecting the youth, which they are concerning the development of internet bar as well. Some owner of the internet bar in Thailand are facing the tackle of business too. Thus, comparing the two counties 's situation could provide a guidance role. Currently, there is little research on innovative business model of internet bar. So, the author hoped, with case study of "internet bar and internet cafe" business model, to develop and design a new business development strategy plan for China-Thailand's internet bar's development, via "internet bar and internet cafe" as a case study business model through the advanced experiences of other internet bar, the research of international and national and the comparative study on the development of internet bar and internet café in two countries, also to help seeking a good opportunity to adapt the new development phase of internet bar and to assist passing the development bottleneck in internet bar industry.

In a word, through investigation and study on the difference of internet bar and internet café in two countries, combed the advantage of internet cafes together and proposed suggestions for the development of internet bar in China and Thailand, provided a reference for the development of internet bars industry in two countries.

2.2 Research significance

Currently, there is little research on internet bar worldwide. The Chinese internet bar is developing dramatically. Except the government shall guide actively, the most important is the research should be carried our for new issue in order to provide support for the development of internet bar industry and play a theoretical guidance for the internet service business. This paper found out the difference between internet bar and internet café and pointed the referenced part above the differences, moreover provided a powerful support and theoretical guidance for the development of internet bar in different area.

The realistic meaning is that, no matter in Thailand or in China, the internet bar has a developed space. They could be gained further development by learning the strengths each other.

3.Methodology and content

3.1Research methodology

This paper adopted the methodology of literature searching, on site survey and comparative analysis. It studied and summarized the literature in terms of internet service and its operation model and provided relevant theoretical evidence and referenced data. An analysis was carried out through the onsite survey of internet bar in Thailand and in China in order to ensure the reality and efficiency of the information. In this research, it must summarize and compare the information of two countries to find out the existing development status of internet bar in two countries and provide some references for the internet bar's operation. It is practically to provide evidence for the establishment and operation of internet bar in two countries through a series research methods.

3.2. Research content

This paper is divided into 6 parts include the first part with introduction to discuss the background, literature review and research significance; second part analyzed the technology of internet and its affection to the business; the third part analyzed the operation of Chinese internet bar and its affecting factors; the fourth part explained the operation and development of Thailand internet bar and compared with Chinese internet bar in terms of policy, environment, consumption behavior, technology, etc.; the fifth part provided the relevant strategy through analyzing the operation model of internet bar in two countries; the last part made a conclusion according to the previous discussion.

4.Conclusion

This paper adopted the methodology of literature searching, on site survey and comparative analysis. It studied and summarized the literature in terms of internet service and its operation model and provided relevant theoretical evidence and referenced data. An analysis was carried out through the onsite survey of internet bar in Thailand and in China in order to ensure the reality and efficiency of the information. In this research, it must summarize and compare the information of two countries to find out the existing development status of internet bar in two countries and provide some references for the internet bar's operation. It is practically to provide evidence for the establishment and operation of internet bar in two countries through a series research methods.

Recently, with the constant development of economic society, the cyber culture market has been developed rapidly with its representative of Internet café, which plays a significant role to increase the communication of social information, improve the quality of technology and culture, promote the economic development. I started to consider the Thai Internet café after coming to study in Thailand; one of the best Thai internet service provider is Webnet. They could provide a temporary Internet account, you can purchase one year of surfing internet in any one of Webnet café, the price is also good as the other internet cafes in Thailand. Thai Internet fee is nearly the lowest price in the world whereof 2 baht per minute. Even the price is not high but the scale of Internet café is not big which one café only with the number of computer around

10, the service and environment are also not good as Chinese Internet café, the Internet speed is slower as well. The internet service industry is the significant reflection of the knowledge and economy and takes up a very important strategy position in every country's social and economic development. Meanwhile, with the living level increasing constantly of the Thais, the increasing of needs to spiritual culture has provided a huge potential market for internet culture market. Under such background, the healthy development of Thai internet café is very necessary, how to improve the internet café's service and environment are becoming the must be solved problem, it provides the reference for the development of Chinese internet café and internet bar constantly as well.

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REDUCING RISKS AND COSTS WHEN WORKING WITH INCOTERMS IN PURCHASING WITHIN THE ASIA-PACIFIC REGION

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Introduction and background

The world is becoming more connected. International trading has increased enormously in recent years due to the acceleration of globalisation. In 2011, international trade accounted for nearly 60 % of global output (United Nations Development Programme, 2013). Increased globalisation gives countries new opportunities to access the global market (Hartungi, 2006). When a company purchases a product from another country it is called importing (Baily, Farmer, Crocker, Jessop & Jones, 2008).

The United Nations Development Programme (2013) has made the statement “The rise of the south”. This refers to a current phenomenon in which larger countries in the southern hemisphere are developing, due to globalisation. This mentioned rise means that people's dedication to development has a direct impact on wealth creation and broader human progress in all countries and regions of the world. This creates new opportunities for former less developed countries, for example China, India and Thailand, to take part in the new trading opportunities. According to Glasner (2014) , these countries are included in the Asia-Pacific region (from now on referred to as the APAC region in this study). Today, the APAC region has become the largest trading area in the world and accounts for close to 37 % of world trade (United Nation, 2014).

The APAC region has lately been growing economically and this has increased the interdependence between the countries in terms of trade and globalisation (Asia-Pacific Forum for Environmental and Development, n.d.). Between 2004 and 2014, import in the APAC region increased by 120 % and export within the APAC region increased by 110 % (World Integrated Trade Solutions, 2016). According to Anderson, Albinsson, Durmin and Kostmann (2006), the APAC region is quickly becoming more developed and industrialised, with many countries showing strong economic growth. In addition, according to the Asia-Pacific Forum for Environmental and Development (n.d.), the APAC region could be the most dynamic region and growth centre in the world by the year 2025. This increasing development demands more from the countries in trade than they are used to and it is challenging for them to keep up with this rapid development which involves significant risks (The United Nations Development Programme, 2013).

Between 1948-2001, the worldwide trade imports increased 95 times over, which has led to higher purchase volumes being sourced further away from home (World Trade Organization, 2002). Customers are now demanding lower prices, shorter delivery lead time and increased product variety, which has led to an adapted approach to purchasing, with companies starting to work more closely with fewer suppliers (Bäckstrand, 2012; Cousins, Lamming, Lawson & Squire, 2008). This approach creates effective purchasing, with focus being placed on product specifications and long-term relationships in order to ensure that delivery is made as agreed

(Gadde & Håkansson, 1998; Jonsson & Mattsson, 2011). According to Handfield, Moncza, Guinipero and Patterson (2011) should negotiations always be gathered into a contract. Standardisation simplifies negotiations and a standard is a systematic formulation produced by experts to facilitate and reduce costs in purchasing, production or documentation (Baily et al., 2008). The International Chamber of Commerce has, together with experts, developed and maintained an international standard for delivery terms, which is called Incoterms 2010. The standard is used in international and domestic contracts when purchasing goods (Ramberg, 2011). The incoterms regulate the allocation of delivery costs and risks between the selling and buying parties (Jonsson & Mattsson 2011), where risks can be defined as an uncertainty (Yates & Stone, 1996). According to Ramberg (2011), the introduction of the incoterm standard took place in 1936 and the standard has been revised seven times in order to keep up with the rapid expansion of world trade and globalisation. The present version of the incoterm standard is the Incoterms 2010 (Ramberg, 2011). According to Jonsson and Mattsson (2011), there are eleven different incoterms included in the present standard. What mainly distinguishes these eleven from each other is the point at which the responsibility shifts from the seller to the buyer and whether the delivery involves sea freight or other modes of transport. A company's profits risk being reduced due to unforeseen occurrences during transport and delivery. Therefore, it is important to have knowledge about the incoterms and how to choose the right incoterm to avoid unexpected costs (Ramberg, 2011).

Problem Description

The consequences when something goes wrong in trade are more serious when trading internationally than when trading on the domestic market. The consequences are also more difficult to mitigate (Cook, 2011). With increasing global trade, more issues arise where buyers and sellers might be unaware of differences in trade practices in various countries. This can lead to the risk of misunderstanding (Eldović, Vukašinović, Tešić & Bijelić, 2015). When companies develop closer relationships with their suppliers, the requirements of being able to understand and negotiate good trade contracts increase (Gadde & Håkansson, 1998). Companies become more subjected to risks in dealing with other companies when they become more dependent on each other (Hallikas, Karvonen, Pulkkinen, Virolainen & Tuominen, 2004; Swink & Zsidisin, 2006). Problems concerning import and export restrictions arise, since procedures differ from country to country. The distances between countries in trade also leads to higher transportation costs, as well as greater risks (Singh, 2012). Risks that often occur in trade are, according to Hedström and Granberg (2009), dishonesty or problems of interpretation between seller and buyer, which can be avoided if using a standard.

According to Holmberg (2011), the newest standard, Incoterms 2010, was updated after ten years and there are several differences between the old standard and the new one. It is of great importance to understand the use of the incoterm standard, since there are legal risks if the terms are not applied correctly (Ramberg, 2011). Therefore it is interesting to study how companies actually work with incoterms and to study what can be done in order to reduce risks and costs. It is of great importance that companies use an incoterm that is appropriate for their transaction (International Chamber of Commerce, 2010). According to Nanto, Cooper, Donnelly and Johnson (2011), when a tsunami wrecked a container terminal in Japan in March 2011, hundreds of consignments were damaged and exporters who were using the wrong incoterms became responsible for losses that could have been avoided by using the right incoterm. This means that using the incorrect incoterm can lead to negative consequences, such as for example when an incoterm relating only to sea and inland waterways is used for road transportation, instead of using an incoterm suitable for all modes of transport (Incoterms

Explained, n.d). The incoterms do not facilitate trade if the parties use the wrong terms (Ramberg, 2011).

Companies often have a lack of knowledge about using incoterms in the right way (Malfliet, 2011). In companies there are often several departments that work with incoterms in some way and in many cases there is one person or one smaller group in charge of deciding which incoterms should be used when trading (Ramsay, 2015). This makes it important to study an organisation's internal knowledge about incoterms, since a lack of understanding of the terms can lead to the risk of overestimating or underestimating the cost of the goods that will be imported or exported. Using the wrong incoterms can lead to the risk that goods in the shipment may be invalidated from the insurance (Capela, 2008).

Since imports in the APAC region increased by 120 % between 2004 and 2014 (World Integrated Trade Solution, 2016), it is important to keep up with the development of the incoterms and understand how to act when purchasing from countries within the APAC region. Thus it is relevant to study the differences between the countries, such as cultural and linguistic differences. It is important to study this area, since these differences can lead to risks of interference in the effective communication (Handfield et al., 2011). As mentioned in the background, the APAC region accounts for close to 37 % of the world trade, with half of that trade being between countries in the region (United Nations, 2014). For this reason, it is important to study how companies within the APAC region should work with incoterms in order to avoid risks and costs.

Purpose and research questions

In the background, the importance of contracting when purchasing is stated. It is also stated that Incoterms 2010 is a standard that can be used by companies all over the world in order to avoid misunderstandings when negotiating and trading. The development of trade in the APAC region makes it theoretically and empirically interesting to study how companies can reduce risks and costs when using incoterms in purchasing in the region. This leads to the following purpose of this study:

“To explore how risks and costs can be reduced when working with incoterms in purchasing within the Asia-Pacific region.”

In order to receive clear directions to fulfil the purpose of this study, two research questions have been developed. In addition, a better knowledge of the standard Incoterms 2010 was required. It was necessary to study a case company in order to gain an insight into how a company within the APAC region currently works with the incoterms. The first research question is:

- 1. How does the case company currently work with incoterms when purchasing within the Asia-Pacific region?*

In order to gain knowledge about how companies can reduce risks and costs when working with incoterms, it is of importance to find out what the risks and costs are, that may be reduced. Input from the first research question provides a basis for identifying where focus should be placed. With this in mind, it is of interest to study how companies can work with the different incoterms in order to reduce risks and costs. This research question also affects companies in countries within the APAC region. Due to the rapid development of these countries, it is of

great importance for companies to keep up with the expansion so as to avoid risks and costs. The second research question of this study is:

2. *How can risks and costs be reduced when working with incoterms when purchasing within the Asia-Pacific region?*

Connection between methods and research questions

To provide an understanding of the structure of this chapter, a connection between the method and research questions has been made. An explanation is given regarding the methods that have been used for the data collection and data analysis, in order to answer the research questions of the study. This is illustrated in Figure 3.

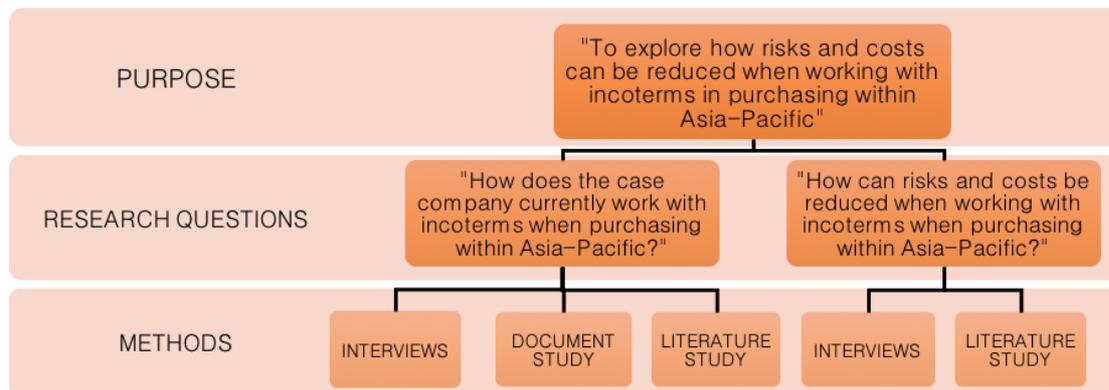
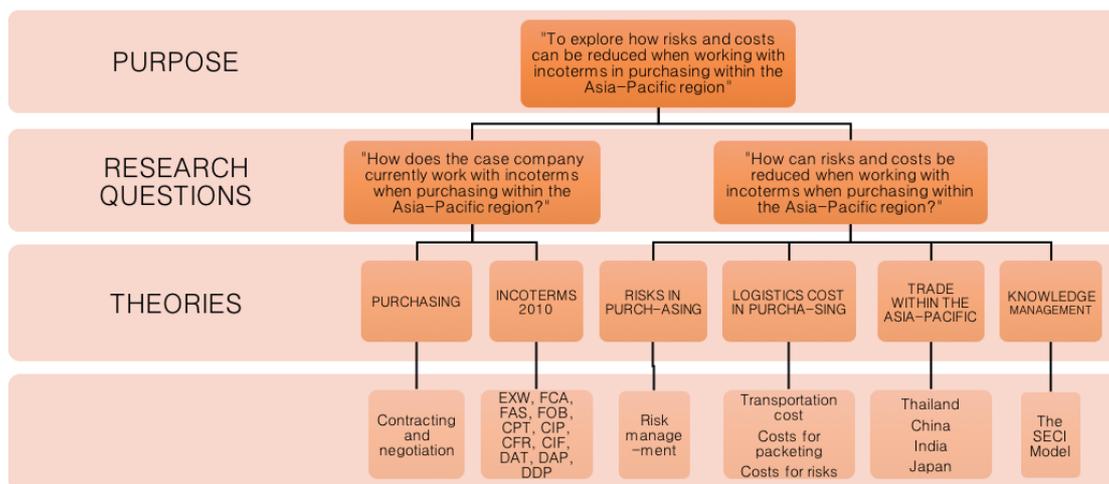


Figure 4 *Connection between purpose, methods and research questions.*

To answer the first research question, literature study has been carried out and empirical studies including interviews and a document study at a case company have also been conducted. The literature study formed a basis for the content of the interviews. The results of the interviews and document studies provided an answer to the first research question. The empirical study and literature studies obtained from the first research question have been used as input and guidance to achieve a reliable result for the second research question. Further literature studies together with more interviews generated a basis for an analysis that led to an answer to the second research question. When both research questions were answered, the purpose of the study was fulfilled.

Connection between theory and research questions

To provide a good understanding of the structure of this chapter, a connection has been made between the research questions and theory. An explanation is also provided regarding the theories that have been studied to obtain a base for each research question. See Figure 6.



To obtain a basis for the first research question, "How does the case company currently work with incoterms when purchasing within the Asia-Pacific region?" the following areas are described in the theoretical framework: purchasing, contracting and negotiation and Incoterms 2010 with the included terms. Purchasing and contracting and negotiations have been studied in order to gather knowledge about the purchasing process within a company and how to negotiate and write a contract. Incoterms 2010 has been studied because the knowledge regarding the incoterms is an operative base for the study. A study about how to correctly use Incoterms 2010 and what distinguishes the different incoterms has also been carried out. A list containing information about all the incoterms has been compiled. The knowledge contributes to evaluating how companies work with incoterms in purchasing and thereby answers the first research question. The delimitation about suppliers within the APAC region was required for the first research question, but a theoretical study about the APAC region was not necessary until the second research question.

To obtain a basis for the second research question, "How can risks and costs be reduced when working with incoterms when purchasing within the Asia-Pacific region?" the following areas are described in the theoretical framework: risks in purchasing, risk management, logistics costs in purchasing, trade within the APAC region and knowledge management. Risk management has been studied in order to learn about the different risks when trading and how to manage them. The APAC region has been studied in order to learn about the differences between the countries and how purchasing within this region works. The logistics costs have been studied in order to understand what costs there are that can be reduced. Finally, knowledge management has been studied in order to gather information about how to disseminate knowledge within an organisation, since this came to be the main area of improvement for the case company when working with incoterms. The SECI model was studied in order to understand different types of knowledge and methods for disseminating the knowledge within the organisation. The result obtained from the first research question provided a basis to be able to answer the second research question.

Analysis

Research question 1

In this subchapter an analysis connected to the first research question, "How does the case company currently work with incoterms when purchasing within Asia-Pacific?" is presented. A

case study containing interviews and a document study provided the needed data for this analysis. Literature study connected to the first research question provided theory needed to prepare for the case study.

The case company uses the latest standard Incoterms 2010, with the terms FCA or DAP being used for around 80-85 % of the purchases from the company's suppliers. EXW is used for around 16 % of the purchases and the case company wants to decrease this amount. When working with EXW, the risks pass over to the case company early in the transportation process, which is not advantageous for the case company. For the case company, FCA works more logically and the customs procedures are more efficient. FCA is also chosen due to the fact that it makes it easy to manage the goods, filling rates, transportation time and delivery lead time. This means having better control of their goods, costs and prices. When working with FCA, the case company can either control the delivery themselves or nominate a carrier to do so. When importing from suppliers far away, the case company wants control over their goods, since it enables them to affect the prices, choose a good transport carrier, coordinate deliveries, improve filling rate and efficiency as well as reduce costs. One way of achieving this is to move the suppliers' warehouses closer to the case company's plant. When purchasing from Japan, the incoterm DAP is used. Japan has no warehouse close enough to the case company's plants and therefore this incoterm is considered the most suitable one to use. It is the people who form the policies and directives regarding incoterms in the case company, who have the authority to decide what specific incoterms should be used. The company is working towards standardising the incoterms FCA and DAP for their trade within the APAC region.

The case company considers it important to work with incoterms in order to facilitate trade. The procedures regarding the usage of incoterms do not differ when purchasing from the different countries within the APAC region. The case company is aware that there are different cultures and business ethics in the various countries, but those do not affect the procedures when using incoterms. When the case company trades with India, it can be more complicated compared to trading with the other countries in the APAC region. There are requirements concerning documents, customs regulations and problems with the constantly congested ports that can complicate trade. This places greater demands on the case company to use incoterms that are suitable for such situations.

The following departments in the case company work with incoterms: the logistics department, finance department, buyer team, business department, purchasing department, customs competence team and the global team. The incoterms are, for example, used at the case company in logistics calculations, in supply chain set-ups and when sourcing suppliers. The purchasing team negotiates and chooses the incoterm for the specific supplier. The purchasers in the case company use an internal incoterm framework document called "*The Global Purchasing Conditions*" that defines what incoterm should be used for what country.

There is an global incoterm expert employed by the concern to which the case company belongs. This expert possesses extensive knowledge about the incoterms 2010 standard and how to use it. When the employees at the case company are working with incoterms and a question regarding incoterms arises, they can turn to this expert. This expert works with incoterms by participating in different discussion forums to ensure that he has the latest information, which is forwarded to the employees at the case company once or twice per year in newsletter form. He also works with online incoterm courses for all the employees in the case company's concern. These are adapted to the knowledge of the participants and this is one way of keeping the employees in the case company updated about how to work with incoterms.

The incoterm expert's task is to educate the employees in how to interpret the incoterms correctly and how to understand the consequences of using the various incoterms.

The team leaders in the departments that work with incoterms have sufficient knowledge about the incoterms that are required to carry out their working tasks. However, employees working for the team leaders do not possess the same knowledge, even though they also work with incoterms. Mistakes or errors may then occur, since the employees still need to accomplish their working tasks. In the case company, there are no internal courses or other resources to disseminate the knowledge about incoterms from the leaders to the other employees.

Research question 2

In this subchapter, an analysis connected to the second research question, "*How can risks and costs be reduced when working with incoterms when purchasing within the Asia-Pacific region?*" is presented. A case study containing empirical data provided the needed data for this analysis, together with theories about purchasing and Incoterms 2010 from the literature study. Further theories analysed against the empirical data are risks in purchasing, logistics costs in purchasing, trade within Asia-Pacific and knowledge management.

The relationship between risks and costs

According to Sherman (2014) risks and costs should be balanced and from the empirical study the authors have understood that there is often a connection between risks and costs in purchasing. When implementing a risk reduction activity, it can lead to higher costs; and when implementing a cost reduction activity, it can lead to higher risks. This can be referred to as a trade-off. For example in the case company, good quality packaging is highly prioritised in order to avoid or reduce the risks associated with the goods during transportation. This leads to higher packaging costs and consequently higher total logistics costs. According to Brandt, Kurti and Schwerin (2007), the goal is to keep packaging costs as low as possible, while at the same time making sure that the packaging is done correctly for the specific case. Another example of a trade-off between risks and costs is when working with reducing the risk of lack of internal knowledge within an organisation. When implementing this, more resources need to be added to the company, which will lead to higher costs in terms of personnel costs, amongst other things. This is a trade-off between risks and costs, since the risks will decrease, but the costs for achieving that will increase.

Figure 8 illustrates the relationship between risks and costs. When there are high risks, the costs for reducing the risks are low, since no resources are implemented to do so. When there is a high cost for risk reduction, there will be a low level of risk, since many resources are implemented to reduce the risks.

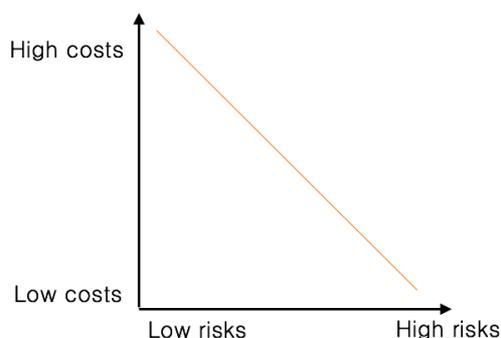


Figure 5 *The relationship between risks and costs.*

Reducing risks

Johnson et al., (2011) states that using incoterms when trading can reduce risks and costs. This reflects one of the reasons why the case company works with incoterms, since using them is linked to estimating costs, where incoterms can be used to reduce costs and cover risks. In the theory it is also stated that using incoterms can help a company overcome different trade barriers, which is one of the reasons the case company is working with incoterms. The case company uses incoterms to facilitate handling if any problems concerning payment, transportation claims, damage or accidents should arise. The standard is also used to define the responsibilities between the company and the seller or buyer, which matches some of the advantages of using incoterms that are mentioned in the theory.

FCA is the incoterm most frequently used by the case company, since it gives them most control over their goods. As mentioned in the theory, the risks and costs are allocated to the buyer, which in this case in the case company, when the goods are loaded on the main carrier, as illustrated in Table 4. The case company uses different modes of transport, such as road and sea. This makes FCA a suitable Incoterm due to the fact mentioned in the theory, stating that FCA is an incoterm suitable for different modes of transportation.

When purchasing from Japan, the incoterm DAP is used because there is no warehouse close enough to the case company’s plants and therefore this incoterm is the most suitable one to use. As mentioned by Ramberg (2011) and illustrated in table 4, DAP gives the seller the responsibility for the risks and costs for the entire transportation flow, except for import customs. This helps the company transfer the risks to the seller instead of managing the risks themselves.

The use of the incoterm EXW is something the case company wants to reduce. When working with EXW, the risks pass over to the case company early in the transportation process, which is reinforced by how Ramberg (2011) describes EXW, illustrated in Table 4. The case company considers that the risks and costs pass to them more logically when using FCA.

Table 2 Three incoterms used by the case company

		= RISKS = COSTS * = Negotiable between seller and buyer										
TRANSPORTATION	ACTIVITY	Packaging the goods	Pre-carriage	Export customs	Loading into main carriage (handling)	Main transportation	Unloading from main carriage (handling)	Import customs	Post-carriage	Destination	INSURANCE	
	INCOTERM	SELLER					BUYER					
Any mode of transportation	EXW	SELLER					BUYER					*
	FCA	SELLER					BUYER					*
	DAP	SELLER							BUYER	SELLER	BUYER	SELLER

According to Baily et al., (2008) a contract should include the terms and conditions of the transaction, the buyer’s and seller’s obligations and a term describing when the ownership and risk pass from the seller to the buyer. This is required in order to avoid risks such as legal risks and misunderstandings. When purchasing, legal risks (Ramberg, 2011) and misunderstandings (Eldović, Vukašinović, Tešić & Bijelić, 2015) are two factors that it is important to prevent. The case company mitigates these risks by describing all details clearly in the contract. The company also mitigates these risks by stating the specific incoterm in full words, instead of only the three-letter abbreviation, as well as the country and by referring to the standard

Incoterms 2010. This ensures that there can be no misunderstandings and that the incoterm is legally valid for the trade.

Eldović, Vukašinić, Tešić and Bijelić (2015) argue that not understanding differences between countries in trade can lead to risks of misunderstandings. The theory of the study describes differences in culture and business ethics between countries within the APAC region. The case company is aware of these differences. For example they pay attention to corruption in Thailand and cultural differences in India. According to Bose (2001) the major ports of India are often heavily trafficked and the volume of the cargo goods is often too much to handle for the ports. The case company is well aware of this problem. The case company also refers to the differences in culture and language and how these issues can present challenges in trade. The case company mentions that communication problems may occur, since companies in other countries within the APAC region use different languages and sometimes the employees in companies in the region cannot properly understand or speak English.

Risks that are mentioned in the theory are also risks that the case company has defined, for example misunderstandings, distance between countries, differences in interpretation between buyer and seller, lack of knowledge within the organisation and loss or damage of the goods. Burt et al., (2012) mentions the importance of considering risk, the case company also mentions that they work towards preventing and counteracting risks. For example, they have their own comprehensive, blanket insurance that covers most of the risks that can occur in deliveries. Another risk for the case company is that this insurance does not cover all events that may occur. According to Norrman and Jansson (2004), risk management includes avoiding risks. The case company avoids risk by having this blanket insurance. They also avoid risks by using incoterms when trading, since incoterms define responsibilities and liabilities when trading.

According to Ramberg (2011), it is of great importance to understand the use of the Incoterms 2010 standard, since if the terms are not applied correctly there will be legal risks. Capela (2008) argues the importance of having the right knowledge regarding incoterms in order to be able to work with them correctly and therefore use incoterms as a tool for risks and costs reduction. Through the case study, three sources of internal knowledge regarding the incoterms were identified, illustrated in Figure 9. One source is documents that exist within the case company containing guidelines regarding their use of incoterms. Another source is the knowledge that the team leaders possess, which they have obtained from their work with incoterms. The third source is knowledge obtained from the online courses held by the incoterm expert.

Reducing risks and costs when working with incoterms in purchasing

This chapter provides a summarising result of how a company can reduce risks and costs when working with incoterms in purchasing within the APAC region. This result is presented in the guide which the authors have come up with and consider to be efficient when working with incoterms to reduce risks and costs. The results presented below show that the purpose of the study is fulfilled.

How to reduce risks and costs

Table 5 illustrates the criteria that should be taken into consideration when working with reducing risks and costs, when working with incoterms in purchasing. The table illustrates the ten criteria that have been developed and also how the case company fulfills the criteria. All the criteria are described below. The case company's level of fulfillment is illustrated as dots in the table:

- Not fulfilled at all
- ● Fulfilled in some way
- ● ● Completely fulfilled

Table 3 *Criteria that can reduce risks and costs when working with incoterms in purchasing within the APAC region*

Nr	How to reduce risks and costs when working with incoterms in purchasing in the APAC region	The case company's fulfillment
1	Use the right incoterm	● ● ●
2	Understand the logistic flow	● ● ●
3	Risk management	● ● ●
4	Have the right internal knowledge	● ●
5	Knowledge management	●
6	Understand that countries differ in trade	● ● ●
7	Use a contract	● ● ●
8	Choose the incoterm together with the supplier	● ● ●
9	Use an insurance	● ● ●
10	Keep up with developments	● ● ●
11	A department with experts	● ● ●

1. Use the right incoterm

Using the right incoterms means that companies should choose an incoterm suitable for the specific requirements of the trade.

2. Understand the logistics flow

It is important to understand the entire logistics flow covered by the incoterms. This is to understand what logistics activities are required from the buyer.

3. Risk management

It is required to work with risk management to understand what risks there are for the company. When the risks have been identified, they need to be prioritised to see what risk is most important to reduce first. And there after a plan for risk reduction need to be made to start reducing the risk.

4. Have the right internal knowledge

Obtaining the right knowledge about the incoterms is required in order to work with them correctly and not choose the wrong incoterm. It is also important to have this knowledge when negotiating, so as to reduce misunderstandings. It also facilitates working with the incoterms in transaction, if accidents or attempts to deceive occur.

5. Knowledge management

It is of great importance that everyone in the organisation working with incoterms has the relevant knowledge in order to work with the incoterms correctly, thereby reducing the risks of lack of knowledge and misunderstanding. Therefore, implementation of knowledge management is required, to ensure that the knowledge is disseminated throughout the organisation. The knowledge can be disseminated through internal courses, documents, group discussions and meetings.

6. Understand that countries differ in trade

The countries in the APAC region differ in trade, in terms of language and business culture. Therefore it is necessary to understand the differences, so as to negotiate a suitable incoterm for a specific transaction. For example, not many people in companies in countries in the APAC region understand or speak English well. Learning about differences will reduce the risk of misunderstandings.

7. Use a contract

To make the chosen incoterm legally valid and to reduce the legal risks when purchasing, the purchaser must state the incoterm in a contract. The contract must include the full words of the incoterm, the country and should refer to the standard incoterms 2010.

8. Choose the incoterm together with the supplier

The incoterm should be negotiated and chosen together with the supplier. This makes both parts aware of their obligations and risks of misunderstandings will be reduced. In this way, the knowledge about incoterms will be disseminated among companies and the risk of lack of knowledge in the APAC region overall will be reduced.

9. Use an insurance

A blanket insurance covers most of the risks that can occur in deliveries, which makes it an important tool for reducing risks.

10. Keep up with developments

It is important to be updated about the incoterms in order to find out if there are any changes and to use the latest standard. Not keeping up with current developments will lead to risks of using outdated incoterms.

11. A department with experts

Having a special department with incoterm experts working only with incoterms can facilitate the company's work with incoterms. This department may be a department that employees of the company can turn to with questions about incoterms. These experts can keep up with the development of the incoterms and provide the organisation with information about how to work with incoterms in an efficient way.

The relationship between risks and costs

There is a trade-off between risks and costs when working with incoterms. The more a company works with tools for reducing the risks, the higher the cost. However, if a company does not prioritise paying more in order to reduce risks, more risks will occur, which will lead to even higher costs for paying for the outcomes of the risks. The relationship between risks and costs is illustrated in Figure 10.

The orange line in Figure 10 illustrates the relationship between risks and costs. Cross 1 illustrates where the company might be when implementing a new plan for risk reduction. This means that a company has a high risk that they want to reduce. To reduce the risk, new resources need to be added, which can then lead to a high cost. After working with the risk reduction process for a while, the costs and risks will decrease in the long run, due to the reduced frequency of occurrence of risks. This is illustrated with the blue line. Cross 2 illustrates where the company can aim to be. Where the orange and the blue line cross, is where the risks and costs are balanced.

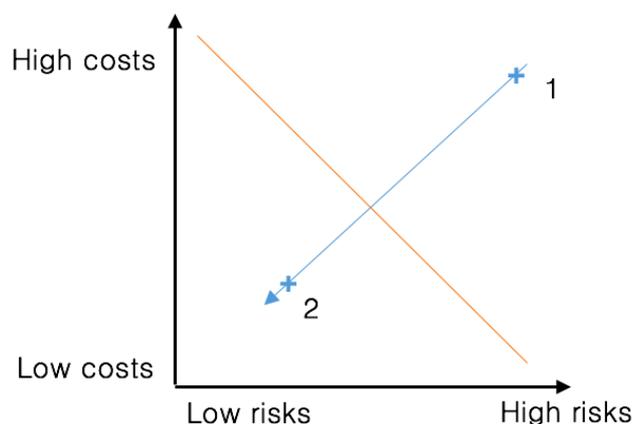


Figure 6 The relationship between risks and costs when implementing a risk reduction activity.

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RESEARCH OF THAILAND TOURISM SUSTAINABLE DEVELOPMENT STRATEGY UNDER THE VISION OF ASEAN ECONOMIC COMMUNITY

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Abstract

Tourism is the pillar industry of Thailand economy, which plays an important role in Thailand's economic development. However, due to the domestic instability, excessive market development in recent years, makes the current tourism in Thailand market capacity gradually tend to be saturated ,sinking into the predicament of lost momentum of sustained growth. About how to blend in and strengthen the economic cooperation with ASEAN counties under the strategic background of the current ASEAN economic community, not only can beneficial to expand the international market ,to ease the development of tourism ,but also can lead to the development of relevant industries .We can see from the fact that south-east ASEAN is Thailand's biggest export market, current Asian is now one of the most important market in Thailand

Thailand is full of opportunities and challenges in ASEAN economic community in 2015,at the meantime, it's also the turning point both to Thailand and ASEAN .In order to help domestic enterprises and investors look for the right way to design their business strategy ,so as to get the highest yield in economic integration ,entrepreneur and investors should understand the basic business environment in Thailand ,such as politic ,economy, social ,culture and some small issues which can also affect Thailand 's business. Besides ,study the influence of the economic community to Thailand enterprises, reference the advanced experience of EU countries at the same time can make the entrepreneurs to fully recognize the success factors in the economic integration, and also can prevent the protection problem. The structure of the paper as follow: The first chapter includes citation, background ,writing significance ,and purpose of this paper and references. The second chapter will expounds the related theory.

The thrived chapter is the basic situation of the tourism development in Thailand and the analysis of the reasons of the impact of tourism development in Thailand .The forth chapter uses SWOT to analyzes the impact on Thailand enterprises joining ASEAN economic community. The fifth chapter studies the European economic experience and reference to Thailand tourism enterprises ,and put forward the corresponding optimization for Thailand tourism actual strategy ,so as to provide decision -making reference to the sustainable development of tourism in Thailand .The sixth chapter research and prospect, summarized in this paper, the basic research conclusion and provide a prospect for research direction in the future .

Keywords: ASEAN economic community; Thailand tourism; sub-sustainable development; strategic research

1.1 Background

Thailand is famous in tourism worldwide and was named “the most exotic country in Asia”. The exclusive Thai culture and premium service are the important factor for the innovation and development of tourism in Thailand. The tourism has brought a huge economic profit but it also causes problem such as the tourism development out of control and order brought a variety of serious bad effects to the Thai nature, society and people. Thus, how to balance the contradiction between the tourism sustainable development and the natural and social environmental conservation and search a sustainable development road for tourism are very important.

Under the background of ASEAN economic integration, Thai enterprises are facing many barriers such as the unstable political situation; the Thai enterprise not pays attention on the research and development; the complexity and repetition of the tax system makes tourism enterprises facing difficult; the enterprise’s internal management regulation is insufficient, there are serious infringement of intellectual property and corruption; there is a serious aging problem and insufficient development capacity which stopped the tourism development; such problem made the complexity of Thai tourism enterprise and made it difficult to development. Thus, this paper discussed the development status and the opportunity and challenge that Thailand tourism facing after entered into ASEAN Economic Community. On the basis of advanced experience of European Community, the paper provided the effective suggestion for the future business development according to the Thai tourism situations.

1.2 Research purpose and significance

This research analyzed the existing problem of Thai tourism development in the perspective of ASEAN Economic Community, and identified the development opportunity, disadvantage, chance and threaten through SWOT analysis method. Under the background of ASEAN Economic Community, study the sustainable development pathway of Thai tourism could remedy the macro research shortage on the existing tourism, enrich the theory knowledge in such field, and provide the

research fundamental knowledge for the relevant tourism development in the further. Meanwhile, with the advanced experience from European country and its enterprise development, we could find the existing opportunity and challenge for Thai tourism after Thailand joined in ASEAN Economic Community. Considering the existing advantage and shortage of Thailand enterprise in the perspective of ASEAN Economic Community and providing the suggestion for Thai enterprise joined in ASEAN Economic Community, promoting Thai enterprise's industrial rectification and production improvement, enlarging the Thai export market and then increasing the development of Thai entire economy, those are the main objectives in this research. The research played a significant realistic meaning for the Thai enterprise entering into the regional economic integration and towards internationalization.

1.3 Literature review

1.3.1 the relevant research on the regional economic integration

The economic integration began in the late 19th century after the Cold War and the integration changed the political contradiction between the Liberal Democratic Party and the Communist Party, this caused an economic contradiction of the trade war. The word of "Economic integration" was appeared and used first in the book of "Mercantilise" in 1935 and the meaning is for passing the trade agreement, trade monopoly and integration referred to the economic integration. In 1950, Jan Tinbergen first mentioned to use the terminology of Economic integration becoming the international economic integration. The definition of coordination and unification to eliminate the trade barrier which Jacob Viner (1950) thought that the advantage and disadvantage that would be produced by the economic integration to all countries depends on the effects of trade creation and trade diversion, which means it has been agreed to import product from the member country but not decrease imports from non-member country (for connecting more consumption), this is called the trade creation. However, if too much imports from the member country, due to decrease tariff and reduce the imports from the non-member country (consumption is the same as before), such way only could protect self-member country but become a barrier for the world trade, this is called trade diversion, which such thought has been applied and developed in to a fundamental theory of the effect analysis result of economic integration.

In 1960 Bela Balassa, a Hungarian economist thought the economic integration among the developed country could reduce the trade barrier. The economic integration is not only a tool affecting the economy national and regional but is a tool of political integration. He divided the economic integration into five forms, such as free trade area, customs union, common market, economic union and full economic integration, etc. The Asian economic integration is in the format of economic union but not full economic integration due to only partial opened freely. For example: the mobilization of labor is only for skilled worker and the barriers trade liberalization is not tariff. For the unobvious financial liberalization and investment, Phayakvichien P (2001) studied

on the APAC trade framework through using the GTAP model, and the long and short term result for 11 regions and 8 products freely opened by the APAC. The study result showed the demand and output of product increased in the APAC member country when reduce the tariff, this caused to increase the demand of production and the industrial capital transfer. The increasing of product demand increased the capital supply, which caused the increase of GDP in the end. The finding in this research is the same as the World Bank. Schiff thought country integration caused the unfair of economic profit. The free trade agreement in the developing and developed country showed that normally the developed country has more advantage than the developing country. In addition, the free trade agreement helps to establish trust between two countries and promoted the economic reform. However, the mechanism achievement and country investigation are transparent and opened to other stakeholders.

1.3.2 The relevant research on ASEAN Economic Community

The World Bank issued (according to the Ease of doing business index) a easy of doing global business ranking. From the data during 2009 to 2011 we could see that Singapore was ranked number 1 in the easy of doing business country, Thailand was ranked 15, Malaysia was ranked 21, Vietnam was ranked 88 and Brunei was ranked 99. ASEAN country has the difference competitive capacity and economic scale, the integration will not affect the development of CLMV countries such as Cambodia, Laos, Myanmar and Vietnam. But diversified economy also brings benefit which the difference of invest structure could bring the multi-national investment into other countries. The investment will promote the growth of national industry and regional trade, which Siao Yue CHIA (2011) thought that ASEAN with a plenty of natural resources is valued to invest as a new market in the book of “Policy comments on Asian economy”, it also showed that the economic crisis in 1997 – 1998 could be recovery fast partially due to the result of FTA integration. Although member country faced political obstacle, due to the integration has the benefit and loss party, its difficult to make integration perfect. One of the obstacle is the policy maker shall establish the loss compensation mechanism for those who had economic loss in the integration including financial, technology and training, as well to find other business opportunity as the compensation. In this point, only a few ASEAN countries can do it well. For example, Singapore gained the benefits from the integration. However, there are distances among the member countries. Liu Ming (2012) commented in “World Economy Research” that the ASEAN economy integration would enhance the Southeast Asian economy and maintain the stable Chinese relation. This is a policy with good opportunity for Chinese investor going abroad. However, the factor to integrate the ASEAN economy is not only extension into ASEAN+3, ASEAN+6 or TPP but also depends on the economic difference reduction between the developed and developing country. Integration of market and production factory enhanced the recognized and uniformed of ASEAN Economic Community. Yang Hong En (2011) in “Economic cooperation of China-ASEAN and ASEAN’s economy growth after the financial crisis in East Asian” talked that the econometric model was applied on the

research of China and ASEAN Economic Community. It was found that exports and net capital importer, especially China is a key factor for the ASEAN economy growth. In addition, it also was found that ASEAN countries gained benefits from the cooperation with China. Only the different development level gained the unfair profits in the investment opportunity caused the different GDP growth level.

Siam Commercial Bank economic information center in Outlook Quarterly 1/204) analyzed the economic vision of ASEAN and thought there is a trend of growing except the global economic recovery. From the economic growth rate in Malaysia, Singapore and Thailand as well as the relevant major industrial export countries (American and China), even relays on the low export countries such as Indonesian and Philippine. There is a growth but is a decreasing trend. The exports are the main driven power for the economic growth in India and Vietnam economic are relays on the export mostly. In addition, it was found that the export rate is increasing in Cambodia and Myanmar. The policy is more reasonable and “Thai enterprise toward AEC development” told that the economic integration promoted the money return capacity the ASEAN in the world. Even though the economic integration is not able to compare with EU but it will be in the future.

Due to different success factors and organizational structure, the EU was established in North American, which is a more decision-making capacity country instead of the member states. But ASEAN organizational structure has the feature of international organization among the countries, which each organization has the same status, decision-making and promoting the organization. However, even there is a free trade agreement, it was found that every country faces the non-tariff obstacle and become into a market without a qualified opening conditions. Thailand economy appended to the ASEAN economy, especially the international trade on CLMV and direct invest and the mobilization of unskilled labor and its benefit to Thailand that gained many opportunity. The regional community provided many opportunity to Thailand including production base and product market and the central advantaged location. The most important is that the ASEAN is a stage for regional integration such as East Asian Community. However, the profit gained form the regional community is not automatic but depends on the government policy and actions including structural reform and the Thai legislation especially service industry is opened and convenient trade, which diffused the advantage of regional integration into the neighboring country for sustainable development. In addition, the enterprise and Thai people shall need time to adapt the internationalized. The challenge that government shall overcome in the service area and the opaque monopoly including custom system and hired the foreign labor as well as the enterprise and public should adjust their mentality to the neighbors in order to meet the future changes.

1.3.3 The relevant research on Thai tourism

At present, there is a large number of researches on the Thai tourism from the data collected and a plenty of research findings. However, the research on the Thai tourism

development under the ASEAN economy community is very little. Zhu Zhen Ming mentioned Thai tourism development in the book “Contemporary Thailand”. Gu Xiao Dong introduced the Thai tourism information in “Handbook of Southeast Asian travel”. Xu Zhi et al. gave a Thailand tourism introduction in the book “Southeast Asian Travel”, Wang Shi Lu mentioned the general development of Thailand tourism in “Report of Southeast Asian”. The comprehensive book about Thai tourism hasn’t been found yet till now, which may because the tourism industry is dynamic and need the updated knowledge and theory to support. But the relevant paper in such field could be found. For example, Yang Dong Song introduced the development of Thai tourism in the paper titled “Thai tourism industry development strategy”, Gao Wen Rong published a paper “Development and Influence of Thai tourism industry”, Fu Yun Xian’s “Discussion on Thai tourism”, Tang Li Xia’s “The causes and effects of Thai tourism development”, Li Rui Xia’s “Reasons on the stable development of Thai tourism in recent year” and “The development and influence of Thai tourism development” etc., such papers introduced the development of Thai tourism and discussed the success and problems during the development of the Thai tourism, analyzed the reason and influence of Thai tourism and provided a reference for the further research. Beside, Wang Yu Qian did research on the Thai tourism in the term of sustainable development and provided many guidance in the paper titled “The strategy and lesson learnt of Thai sustainable tourism development”. However, the author only conducted a micro research on the Thai tourism development but didn’t explain the macro affects of the ASEAN economy community to Thai tourism development, and this paper could explain such point as a supplementary theory. The author thought it is very meaningful to carry out a research and improvement on how to sustainable develop the Thai tourism under the environment of ASEAN economy community, especially the tourism as the first pillar of the country economy in Thailand.

1.4 research concept and methodology

1.4.1 Concept

The paper introduced the background and objective first, and detailed explained the relevant research on this topic international and national, then explained the research significance. This paper mainly introduced the general development of ASEAN economy community and the existing status of Thai tourism based on the theory of regional economy cooperation and sustainable development theory; analyzed the causes and affect factors of Thai tourism development, then discussed its research necessity of this paper. Later, the author analyzed the opportunity and challenge after Thai enterprise joining the ASEAN economy community through SWOT analysis. Meanwhile, it provided the advanced experiences of European countries after joining European economy community and provided suggestions for Thai enterprise.

1.4.2 Main content

This paper was divided into six parts. First part is introduction which mainly introduced the background, topic selection and its significance, literature review, writing ideas and methodology and pointed the innovation point and shortage point in this paper; the second part analyzed the theory for the later part discussion including theory of regional economy cooperation, sustainable development theory and theory of enterprise development strategy; the third part analyzed the existing situation of Thai tourism and explained the obstacles that Thai tourism development are facing and discussed the causes of such obstacles; the fourth part analyzed the opportunity and challenge that Thai enterprise may meet after entered ASEAN economy community; the fifth part introduced the European economy community and analyzed the development status of after European countries joined in European economy community, which aimed to provide a reference for the Thai enterprise economy development after joined in the ASEAN economy community and provided strategy suggestion for Thai tourism development. The last part is conclusion; it summarized the author's finding and hopes for the future research in such field.

1.4.3 Methodology

The paper mainly applied the methodologies include:

1. Theory analysis: analyzed “regional economy cooperation theory” and “enterprise business management” and provided the fundamental theory for later part discussion.
2. Case demonstration method: applied case demonstration method to analyze the existing development status of Thai enterprise and the problem during the develop process.
3. SWOT analysis: analyzed the internal advantage and shortage of Thai tourism in the term of business management through SWOT analysis; pointed the opportunity and challenge that Thai tourism are facing after joined in ASEAN economy community.
4. Case analysis: the author analyzed the successful experiences of European countries after joined in European economy community and discussed the lesson learnt which could be applied by Thai enterprise.

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EXPLORING HOW TO GAIN EFFICIENCY IN THE SUPERMARKET CONCEPT

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1. Introduction

1.1 Background

The industrial environment of today is affected by the growing globalization (Aguado, Alvarez & Domingo, 2012). As in recent years, more actors have been able to enter the market and compete for the same customers, competition has gotten tougher (Petersson, Johansson, Broman, Blücher & Alsterman, 2012). Along with changing business conditions caused inter alia by globalization, outsourcing and environmental awareness the importance of efficient logistics to create efficiency and competitiveness has increased (Jonsson & Mattsson, 2012). These conditions puts a demand on an organization from several directions to be a good supplier for its customers and attractive for its investors (Petersson, Johansson, Broman, Blücher & Alsterman, 2012). As a result, companies need to define how they can optimize the logistics processes in addition to unifying and standardizing the value creation chain to create value for the customer (Aguado, Alvarez & Domingo, 2012). The area of logistics is defined as planning, organization and control of every activity in the flow of materials, which aims to satisfy the customer and other stakeholder's needs and desires (Jonsson & Mattsson, 2012, p.20).

Increased productivity is a common denominator for satisfying both owner requirements and customer requirements. It also seems to be of great potential to increase productivity as much as 50 percent (Petersson, Johansson, Broman, Blücher & Alsterman, 2012). In recent years, different means of achieving efficient production have been explored (Aguado, Alvarez & Domingo, 2012). A long-term approach to increase productivity and thereby attracting both customers and investors is Lean (Petersson, Johansson, Broman, Blücher & Alsterman, 2012). Lean focuses on reducing waste and non-value adding activities and includes forms of just-in-time (JIT) strategy (Domingo, Alvarez, Peña & Calvo, 2007). The best characteristic of JIT is that it aims at producing the requisite of a product, at the right time, in right quantity and should take away the unnecessary inventory (Jasti & Kodali, 2015).

Many assemble-to-order (ATO) producers have thereby implemented the so-called "supermarket concept" to create a fast, flexible and reliable in-house part logistics process (Monden, 1998). A just-in-time supermarket is a decentralized, intermediate storage area for parts used in the nearby line segments (Emde, Fliedner & Boysen, 2012; Monden, 1998). In the JIT concept every container is linked with a plastic card containing information used for the production and supply of parts in each stage of the production. These cards are used to control the flow of goods in the production and inventory (Kumar & Panneerselvam, 2007). With increasing vertical integration

and an increase in product variety, JIT supply of final assembly lines poses one of the greatest challenges in today's production (Emde, Fliedner & Boysen, 2012).

1.2 Explanation of the problem

Improving customer service, making operations faster, more responsive, and dramatically reducing costs are the challenges faced by manufacturers today. One technique that has attracted much attention during the past is the JIT concept (Zhu, Meredith & Makboonprasith, 1994). For this reason, an increasing number of automobile producers have adopted the supermarket concept (Emde, Fliedner & Boysen, 2012). The advantages of the supermarket concept is very important in today's ATO production, as the space at the stations along the line is notoriously scarce (Battini, Gamberi, Persona, & Sgarbossa, 2014).

In the manufacturing systems, the management of the components is very important in order to reduce all the costs related to handling and holding activities (Battini, Faccio, Persona, & Sgarbossa, 2009). To ensure the availability of parts needed on the line, three line feeding modes are commonly used in practice: line stocking, kitting and sequencing (Sali, Sahin & Patching, 2015). Typical planning issues in warehouses are inventory management and storage location assignment. An effective policy for assigning warehouse storage location may reduce the mean travel times for storage/retrieval and order picking (Fontana & Cavalcante, 2013).

1.3 Purpose & research questions

As the environment for companies is getting more demanding due to globalization, outsourcing and tougher competition. It is important to obtain efficient logistics. This can be done by using JIT and the supermarket concept as it is focused on reducing waste and improving the flow of goods controlled by the kanban cards. As there is a problem for today's manufacturers making their operations faster too keep up with the increasing demand from the customers. It is interesting to study how manufacturers can increase the flow of goods in the supermarket concept to get a higher efficiency which according to Tilanus, (1975, p.63) is defined in a technical sense as a realized value of a given variable expressed as a percentage of the maximum value. Based on this the purpose of this study is as following:

To explore the means to improve efficiency in the supermarket concept.

One of the biggest costs related to warehousing is order-picking which consists more than half of the time by the non-value adding activity traveling (de Koster, Le-Duc & Roodberger, 2006), also known as waste which should be eliminated, which is the main purpose of Lean (Monden, 1998). It is thereby interesting to explore how the flow of goods through the supermarket should be constructed to deliver the right product at the right time. This concludes in the first research question:

1. How can the flow of goods in the supermarket improve its efficiency?

As traveling is a non-value adding activity and considered as waste, time and distance required to pick an order must be reduced and simplified to gain a more efficient flow of goods (Bartholdi & Hackman, 2014). This could be achieved by standardizing the

placement of goods to support the JIT philosophy. This results in the third and last research question:

2. How can goods be placed within the supermarket concept to gain efficiency?

By considering the information from the research questions above the authors are expected to find a suitable way of improving the efficiency of the supermarket concept. The purpose and the research questions will thereby be fulfilled by combining both empirical studies and theoretical studies, where the empirical studies will be conducted at a case company.

1.4 Scope & delimitations

The scope of the thesis is the supermarket concept where the goods for supplying the assembly line is being replenished and withdrawal of goods is performed. Focal points of the thesis is all traveling of tow-trains and operators connected to the supermarket, the material handling of goods by operators not on the tow-trains, as well as the placement of goods in the supermarket. This study will thereby only look into the supermarket concept and the logistics processes within, from one multinational manufacturing company.

2 Method & implementation

2.1 Study Design/Data Collection

This study is conducted with ties to a multinational manufacturing company that will be referred to as the case company. To fulfill and answer the research questions and purpose, literature studies, observations, secondary data (document studies) and measurements was performed. The literature study has been conducted to gain a deeper understanding in the field of the case. The study was placed at the beginning to get an understanding of what to be researched (Patel & Davidsson, 2012) and got added on throughout the study as new findings appeared to complete the questions. The aim was to find theories and methods to help answer the purpose and research questions of the study. Apart from the findings of previous question and secondary data, time measurements were conducted in order to gain statistical data. The data collection for this study consists of collection of empirical data retrieved at the case company by interviews, observations and measurements ending with secondary data. Below follows a more detailed description of the different parts of the data collection.

2.1.1 Observations & Measurements

To collect empirical data, observations and measurements was conducted. Observations were performed to get a better perspective and understanding of the case company's current situation and was seen as a qualitative method. The observations also contributed in obtaining information useful when it came to giving an alternative view of the studied area (Yin, 2007). Using the observations in the early stages of the data collection enabled to build a foundation for other techniques used to collect data (Patel & Davidsson, 2012). The measurements were conducted for retrieval of quantitative empirical data for statistical use. Measurement that was conducted at the company was time studies to retrieve statistical data used in the statistical data analysis and to understand the current state. Performing time measurements was enabled by using an instrument for measuring time.

2.1.2 Secondary data

Documents provided from the case company regarding the supermarket such as article placement, withdrawal frequency of the different articles and the demand from the assembly lines the supermarket supply was used for empirical data collection. Yin (2007) states that the documents main roll in a case study is to support data and information gained from other sources. The documents that currently are used by the company was analysed and used to help answer the research questions and to fulfil the purpose.

2.2 Literature Studies

During the literature studies, theories within the Lean philosophy and order picking was collected to obtain theoretical input. To collect the theories needed, searching books, scientific articles and science reports was performed. Retrieving theories was done by using different databases such as primo, Google scholar and Scopus as well as searching in the library at AIT and Rangsit University in Bangkok, Thailand. After the literature study was completed, a table of searched keywords, areas and combinations of keywords was compiled. The literature study contributed to build a foundation for the analysis and results.

2.3 Statistical data analysis

With data collected from secondary data, time measurements and from theory obtained by the literature studies, some calculations were conducted. This method helped obtaining a better understanding of how the flow of goods could be improved by calculating the amount of Kanban cards in a mixed-model assembly line together with calculations connected to handling of goods. The calculations contributed in finding ways of improving efficiency in the supermarket concept.

3 Theoretical framework

3.1 Lean

Lean can be considered as a manufacturing philosophy, which can be used as a tool for problem solving in a long-term perspective (Bhasin & Burcher, 2006). The definition of Lean is: “use less of everything - half the human effort, half of the manufacturing space, half the investment, half the working hours to develop a new product in half the time” (Jasti & Kodali, 2015). The target of Lean is to eliminate any kind of waste in the production system by using Just-In-Time and Jidoka which are the two pillars of Lean (Ohno, 1988). The result of the Lean system is standardized, continuous optimization of processes throughout the organization (Aguado, Alvarez & Domingo, 2012). Although Lean covers almost everything in an organization, the main purpose is manufacturing the products without any kind of waste (Monden, 1998).. Waste is understood as any activity developed by a company that consumes resources and does not produce value for the customer (Butz & Goodstein, 1996).

3.1.1 Just-In-Time (JIT)

A large part of striving towards Lean is to produce the right products at the right time (Petersson, Johansson, Broman, Blücher & Alsterman, 2012). This is called Just-In-Time (JIT) which is one of the two pillars in Lean and can be defined as: “In a flow of process, the right parts needed in assembly reach the assembly line at the time they are needed and only in the amount needed” (Ohno, 1988, p.10). As waste is a non-value adding activity these operations can typically account for 90% of the total operations in a process not using JIT (Zhu, Meredith & Makboonprasith, 1994).

JIT can effectively support the line stocking in a mixed-model assembly line, by setting the right stocking level and Kanban card number. However this cannot be done without a tradeoff between the service level and holding cost (Caputo, Pelagagge, & Salini, 2015). One of the goals of JIT is thereby also to reduce all inventory stored at the assembly line stations (Battini, Boysen & Emde, 2012). By doing so, organisations can get more efficient in-house logistics processes and as the storage space at the assembly line stations usually is insufficient and expensive this helps to secure competitiveness (Emde & Boysen, 2011). Reducing inventory is one of the benefits of JIT which also includes reduction of lead times, increased quality, increased inventory turnover and better usage of equipment and labour (Zhu, Meredith & Makboonprasith, 1994).

3.1.2 Supermarket Concept

Following the just-in-time (JIT) approach, a growing number of manufacturers have started to adopt the so-called supermarket concept where possible frequent small batches are delivered (Faccio, Gamberi, Persona, Regattieri, & Sgarbossa, 2013). This to handle and master the challenges for fast, flexible, and reliable in-house part logistics processes (Battini, Boysen & Emde, 2012). Supermarket warehouses are decentralized logistics areas distributed in a warehouse near the operative areas, the supermarkets are used as an intermediate store for the parts required by the assembly lines (Faccio, Gamberi, Persona, Regattieri, & Sgarbossa, 2013). Replenishment of the supermarkets are done by retrieving goods from the central receiving store with large trucks compared to the small tow-trains for the assembly lines (Battini, Boysen & Emde, 2012). This type of supply is a great advantage in the automobile industry where the space at the stations is notoriously insufficient (Battini, Boysen & Emde, 2012). The supermarket warehouse supports the JIT philosophy with supplying the right product in the right quantity at the right time and keeping the flow of goods continuously coming from the supermarket to the assembly line (Caputo, Pelagagge & Salini, 2015).

3.1.2.1 Kanban

By using the Kanban method and other JIT-techniques companies has been able to optimize their production systems the recent decades (Faccio, Gamberi & Persona, 2013). In the JIT environment, Kanban cards control the flow of goods and the production flow, the cards are usually made of plastic and are associated with a plastic container that parts are placed in (Kumar & Panneerselvam, 2007). The assembly line replenishes the goods used and pulls it through the system using the Kanban cards. The inventory level is thereby depending on the amount of Kanban cards called n . If n is large the inventory level of all of the parts at the assembly line will be larger and if you decrease n the inventory at the assembly line will decrease and a risk of shortage will occur. (Faccio, Gamberi & Persona, 2013)

In formula 1 Faccio Gamberi, Persona, Regattieri, and Sgarbossa (2013) presents a method of calculating *kanban* the variables Nop (number of tow-train operators in the system) and $LS_{i,l}$ (service level for part i on assembly line l) are derived from the total cost minimization procedure.
$$Kanban_{i,l} = \frac{a_{i,l} \cdot LT + SS_{i,l}}{SKU_i} [Kanban] \quad (1)$$
 To calculate the $Kanban_{i,l}$ several variables must be determined. First the $LS_{i,l}$ will be calculated using Persona, Battini, Manzini and Pareschi (2007) formula,
$$SS_{i,l} = k_{i,l} \cdot \sqrt{LT} \cdot \sigma_{i,l}$$
 Containers (2) Where $k_{i,l}$ is the security factor for part i on the line l related to the

service level LS , that is according to the regular distribution assumption of the part demand.

LT represents the supply lead-time expressed in days according to the daily working time T . The workload for the handling operators is equally distributed between them, the average supply lead-time for all considered parts is thereby the same and can be calculated as formula 3, $LT = \frac{T_w}{\text{Round/day}} \text{ minutes}$ (3) The parts standard deviation is designated as σ , and will be calculated as in formula 4, $\sigma_{i,l} = \sqrt{(\sum_m (BOM_{i,m} \cdot \sigma_{m,l})^2 + (\sum_m \sum_{z>m} 2\rho \cdot BOM_{i,m} \sigma_{i,l} \cdot BOM_{i,m} \sigma_{i,z}))}$ (4)

3.1.3 Storage assignment policies

One of the challenges for the warehouse manager is to determine the right location for all SKUs in a warehouse. The use of different storage system has an effect on the efficiency of the policies as there is multi-level and single-level racks, different levels of pick density and combinations and results in performance differences in the picking itself (Chan & Chan, 2010). By then using the right storage assignment policy in the right way it can help reducing total traveling distance and will increase the performance of order-picking (Hsieh & Tsai, 2005). The efficiency of picking is undoubtedly, related to the configuration between classes and aisle. Where the optimal assignment is dependent of routing, the number of SKU per route and the size of the warehouse (Chan & Chan, 2010).

The key factor in determining the use of the right storage assignment policy, is pick density (Chan & Chan, 2010). Pick density is dependent on the orders and it is thereby hard to know it in advance. Increased pick density can be retrieved by having a high SKU density, which is the number of SKUs per travelled meter and then by having stored the most popular SKUs together (Bartholdi & Hackmann, 2014). The definition of pick density is the variety of items in an order that affects the picking performance and can be calculated as (Chan & Chan, 2010): $Pick\ density = \frac{\text{No-of items in an order}}{\text{Total no-of items in the warehouse}}$ (5) Some of the perks of having a high SKU density is that the operator have many SKUs in the pick face, which increase pick density and reduces travel per pick. This is making the whole picking process more efficient and contributes in making the restocking easier to handle. By achieving this it reduces the local search, which is the biggest non-value adding activity (Bartholdi & Hackmann, 2014).

Storage assignment planning, based on ABC access frequency plus merchandise item similarity, is sure to be helpful on the picking performance (Chan & Chan, 2010). The items can be sorted after the frequency of how many times they are picked in a period. By doing this it is usually about 5% of the items that stands for 50% of the picks, 20% for 80% and the last 80 % for 20% of the picks. The results of the ABC classification will then help in placing the SKUs with the highest frequency of withdrawal in the most accessible storage locations to use the resources as effectively as possible compared to the importance for the operations (Jonsson & Mattsson, 2012).

3.1.4 Tow Trains

Tow-trains have the task of bringing the goods to the supermarket and further on from the supermarket to the assembly line (Limère, van Landeghem, Goetschalckx, Aghezzaf & McGinnis, 2011), they have the task of serving several stations on the

assembly line and typically operate on fixed schedules (Emde, Fliedner & Boysen, 2009). By using tow-trains the right amount of products in the right amount can be delivered from the supermarket to the production system minimizing the stocks and reducing the traveling distance with frequent and small deliveries. (Faccio, Gamberi, Persona, Regattieri, & Sgarbossa, 2013). Emde and Boysen (2011) highlight two problems with tow-trains, the routing problem regarding the fleet size, amount of wagons (that will affect the maneuverability of the tow-train) and avoiding congestions on certain stations on a route. The other problem is the scheduling problem that consists of what stations should be visited during a route and how long the stopovers are at each station. These two problems are dependent on each other to work for the assembly line to continue producing. The average estimated number of tow-trains used in the supermarket concept N^{tow} , the function represents of the total number of carts (for all towtrains). To calculate the following formula will be used:

$$N^{tow} = \frac{\frac{L_{run}}{V_{run}} + T_L \cdot N^{fakt} \cdot d_{LL}}{3600 \cdot T_w \cdot \eta^{tow}} \quad (6)$$

(Bortolini, Ferrari, Gamberi, Manzini & Regattieri, 2015) The average estimated turns/day by the operators in the supermarket concept can be calculated with Faccio, Gamberi, Persona, Regattieri, & Sgarbossa's (2013) way of calculating it as the consequence of the average part supply lead-time: *Round per day* $N^{!} = \frac{T_w \cdot \eta \cdot Nop - \left(\frac{T_L + T_S}{\eta}\right)}{T_{run}} \left[\frac{Rounds}{day}\right]$ (7) Nop represents the number of operators while η

represents the operator's efficiency ($0 \leq \eta \leq 1$), and T_w is the daily working time in minutes. To calculate the number of loaded bins per trip (B) on the tow-trains a deeper understanding can be gained and the result can be used in improving the kanban number sizing problem: (Faccio, Gamberi, & Persona, 2013)

$$B = \frac{\sum_{i,j} d_{Kij}}{Turns/day} \quad (8)$$

By using the formulas and methods different key factors can be developed and by comparing the factors: (Faccio, Gamberi, & Persona, 2013)

- Tow train utilization (%)
- Turns the number of tours completed in the system
- Total distance covered (meters)
- Average number of bins loaded for trip (Bins/trip)

When the performance factors has been set for the scenario the goal is to provide a tool to simplify the decision solving the trade-off between deciding the tow-train fleet dimension and management as well as the inventory stock levels (which is related to the number of kanban) with the goal of:

- Determining the minimum fleet size Nop the permits the target service level SL to be reached (i.e., the number of missed or delayed deliveries ha a maximum acceptable value) and an inventory level to be considered that preserves the assembly system productivity
- Optimization of refilling interval, maximizing the utilization of the tow-train capacity $Tuti$ but also satisfying the service level SL imposed as input.

4 Empirical study

4.1 Description of company

At the factory where the case study has been conducted, the production takt is 12 trucks per day. Trucks are made to order in which there are two base models and for every model there is a possibility of customizing the truck by the customer requests. To help producing the trucks there are seven assembly lines containing a total of 67 stations divided differently between them. To supply the assembly lines the company are using a supermarket that is placed at the border of the line, close to the assembly lines.

4.2 Supermarket

The supermarket at the case company is today designed to have a total capacity of 2000 different parts/articles but is only utilized to about 85% of the total capacity with 1643 different parts stored in the supermarket today. The supermarket warehouse has five different aisles connected to it, three for replenishment of the supermarket and two for withdrawal of articles from the supermarket to the assembly line as seen in the appendix. The aisles are 40 meters long and 3,5 meters wide. The racks between the aisles are 2,2 meters wide. Replenishment aisles are the aisle in the middle and the outer aisles, withdrawal is made from the picking aisles, illustrated in Figure 6. Above the supermarket racks there are high storage racks used for warehousing bulk quantities of articles. The result of this is that not only the tow-trains are active in the supermarket aisles, but also high reach forklifts that can result in congested aisles. The aisles are “one direction only” so the operators are only allowed to drive in one direction to prevent some congestion that would have slowed the processes of replenishment and withdrawal down.

The withdrawal and replenishment of the supermarket concept at the case company is controlled by a Kanban system. The movement of goods within the supermarket concept is controlled by eight tow-trains operators with one wagon each with three levels per wagon with the dimensions of 2x1,2 meters, a total area of 5,4 m² per wagon. These tow-trains are driven a total of 86 rounds per day at the case company during the eight-hour work day. The rounds are divided to 56 for replenishment of the assembly lines (withdrawal of supermarket) and 30 for replenishment of the supermarket concept. Replenishment of the assembly line is done by providing good from the supermarket to a 727 meter long route with 67 stations spread out on seven assembly lines. When a container is consumed at one of the seven assembly lines, the tow-train operator will scan the container and a Kanban signal will be sent and completed into a picking order. An operator then completes the order from the supermarket to the assembly line which triggers a Kanban signal for replenishment of the supermarket.

Container #	Area (m ²)
#100	0,027
#500	0,06
#750	0,12
#780	0,24
#840	0,48

Table 1. *Container Area*. Containers used for the articles are standardised into 5 different sizes based on the volume of the articles and can be seen in *Table 2*. Within the supermarket these containers are stored depending on the size ratio of the container. Smaller containers are placed together close to the picking area and in the most convenient location to pick for the tow-trains and then following size. Further the placement of goods is based on a master plan that the manager use as a base for decisions in where to place different articles, which then become random. For a new article the manager first need information of the size of the

container, the weight and the demand per day. In the next stage he decides if the part should be in small, medium or big parts supply.

5 Analysis

Research question 1

5.1.1 Just-In-Time (JIT)

By working with a Kanban supermarket the case company is working with JIT as the supermarket is one way of getting the right part at the right time, in the right quantity. Which is according to Ohno (1988, p.10) is the meaning of JIT and a part of striving towards lean and zero inventory. Using the Kanban supermarket is a way of reducing the unnecessary stock at the assembly lines and gets a more efficient process of feeding the assembly line in time As the supermarket concept is based on Kanban cards that send a Kanban signal when stations at the assembly line need to be replenished from the supermarket and the processes pulls the goods through the system. This is according to Zhu, Meredith and Makboonprasith, (1994) what JIT is based on and initiated by the present needs.

5.1.2 Kanban

By using formula 1 the number of Kanban cards can be calculated using the variables retrieved from formula 2, 3 and 4. By calculating the number of Kanban cards the level of inventory can be set to reduce unnecessary inventory, reducing the cost of holding inventory as well as enabling free space at both assembly line and in the supermarket to be utilized more efficient. This formula is based on the service level set by the case company and by retrieving the number of cards the level of SS and the supply lead time (LT) for all parts will also be retrieved. Using the formulas a standard deviation of parts was retrieved to be 1,07, the SS and supply LT was retrieved for every part and compiled in an excel document for all the 1643 parts. The use of the formulas was made on the current state of the company as well as the proposed way of working in order to gain efficiency that is coupled to the dimension of the tow-trains fleet, the number of trips per day and the utilization. In order to gain efficiency a trade-off has to be made between the mentioned reasons and the level of Kanban cards (level of inventory). This is also found to be true according to Faccio, Gamberi, and Persona,(2013). In order to gain efficiency the Kanban card number has to increase with 50% compared to the current state of the case company.

5.1.3 Tow-Ttrains

Tow-Trains station ravines the responsibility of bringing the goods into the supermarket and withdrawing the goods from the supermarket to the stations at the assembly lines. Thereby all movement of goods within the supermarket concept at the case company is reliant on the towtrains. This enables the movement of frequent small batches of goods for supplying the assembly line more efficient. The used factors to measure the segment of the tow-trains are retrieved from the theory of Faccio, Gamberi, Persona, Regattieri and Sgarbossa (2013) that are:

- Tow-train utilization (%)
- Trips the number of tours completed in the system
- Total distance covered (meters)
- Average number of bins loaded per trip (Bins/trip)
- Number of delayed deliveries

By calculating and using the formulas presented in the theoretical framework the key factors can be identified and thereby be improved by using the presented methods in the theoretical framework. The area of the tow-trains and the amount of containers transported determines the factor “Tow-train utilization”. It was found that this could vary between 18,5-58,3% but should strive to be as close to 100 % as possible in replenishment of the supermarket concept and as even as possible. The current average utilization of the tow-train is 35% when replenishing the supermarket. The amount of the number of Trips is currently 56 for withdrawal of the supermarket but should strive towards as few Trips as possible without compromising the determined service level. Using formula 7, to calculate the number of trips needed for the daily demand of containers resulted in that the case company need 36 rounds with today’s efficiency to supply all the stations with the determined service level and today’s number of operators which is appropriate with the service level. The containers needed per trip would then have to be 25 found by using formula 8 instead of today’s average of eleven containers per trip. If the number of tow-trains would increase or decrease this would have a major impact on the number of Trips needed, LT and the utilization which is shown in Table 3.

Table 2. Number of operators’ impact on withdrawal

N_{op} (Number of operators)	B (Container/trip)	T_{trips} (Trips/day)	LT (Lead time for replenishment)	Utilization (%)
6	-16	-57,5	-8,3 (Min)	-
7	25	36	13,3 (Min)	26%
8	7	129	3,7 (Min)	7,2%

If the company would have six operators they wouldn’t be able to supply the assembly line with today’s service level and would have to work more hours in order to supply the daily demand of parts. Would they instead increase the number of operators with the same service level they would have to increase the number of trips and decrease the number of containers per trip to seven. This would have an impact on the utilization of the tow-trains with an average of 7,2% instead of today’s 11,4% which with the right utilization and the right number of trips would be 26% utilization retrieved by a weighted calculation of the five different sizes of the containers and their demand. With the #100 container area divided by two due to stacking on top of each other is performed by the operators reducing the utilization of one box. Dimensioning the tow-train fleet by using formula 6 by Faccio, Gamberi, Persona, Regattieri and Sgarabossa, (2013) effectively dimension the number of tow-trains, which then should be seven with the current work process and the current service level, which is in line with what was found in Table 2.

Research question 2

5.1.4 Storage assignment policies

Using the right configuration between classes and aisles will undoubtedly increase efficiency according to Chan and Chan (2010). The layout of the supermarket at the case company is suitable for the use of cross-aisle picking due to having supermarket on both sides' in the aisles. Although the layout is suitable, this way of picking is not in use at the case company, which was obtained through observations of the picking within the supermarket warehouse. Instead the goods are placed and received by the operator in sequence which then makes the traveling double of what it could have been using cross-aisle picking. The use of cross-aisle picking and class-based storage is found to be close to optimal in reducing total travel time according to Le Duc and de Koster, (2005). To classify the goods at the case company an ABC classification was made based on access frequency and similarity table can be found in the appendix. This is made based on having the containers with highest withdrawal frequency at the most accessible locations. Doing so is found in the theory to enable the use of resources as effectively as possible. As local search is one of the biggest non-value adding activity Bartholdi and Hackmann (2014) implies that the pick density needs to be increased, enabled by increasing the SKU density. As the operator search for containers a big part of the time, spent on order picking at the case company. The pick density at the case company is 0,014 retrieved from formula 5 which is quite low. When having a high SKU density the SKU per travelled meter and the number of SKUs in the pick face will increase. Which result in increased pick density and increased efficiency in the picking process and the entire order picking process.

5.2 Means to gain efficiency in the supermarket concept

Gaining efficiency within the supermarket concept can be made by using different means. In this study the means has been applied on a case company, which makes them more suitable for similar companies. In order to gain efficiency the company have to map the current state of the supermarket concept retrieving some important KPIs for the formulas to be used. When the current state is established the following step will be to use the formulas to obtain the number of Kanban cards there has to be to gain efficiency and thereby determining the tradeoff between inventory levels and efficiency gains. To obtain the number of Kanban cards needed formula 1-4 will be used. By knowing this the fleet size dimension, the utilization of the tow-trains and lastly the storage assignment for the parts in the supermarket need to be determined to increase efficiency.

5.3 Dimension the tow-train fleet size

As the current state of the supermarket concept is established the number of tow-train operators is known as well as utilization, current number of trips per day, distance per trip, bins per trip and average time to withdraw and replenish from the supermarket. By then using formula 7 the right amount of Trips per day needed to supply all assembly lines from the supermarket without affecting the service level can be obtained. This will also affect the number of bins needed per trip when changing the number of Trips per day retrieved using formula 8. When using the formulas the number of operators needed can be changed in order to see which number of operators will gain most efficiency. This can later be confirmed or denied by using formula 6 to find out the effective number of operators needed.

5.4 Determine storage assignment

For the storage assignment policies the best way to store the goods in a multi-level rack supermarket or warehouse is to base it on classes to make it easier for the operator to pick. In order to have an optimal layout of the supermarket for the tow-train operators to work more efficient the supermarket has to enable cross-aisle picking together with a multi-level supermarket. This can result in short total travel distance and reduced total travel time of the operators. To decide which classes should be placed together an ABC-classification can be made for all of the parts. The classification should then be based on access frequency and similarity between parts. When the ABC-classification have been carried through the parts with the highest frequency should be placed at the most accessible locations to enable the use of resources more effectively. Following the ABC-classification the decision of placing the parts to increase the SKU density will be made. Placing goods closer to each other to increase the number of SKUs in the pick face and increase pick density to increase efficiency in the picking process by reducing local search.

6 Conclusions

6.1 Conclusions and Recommendations

The conclusions and recommendations based on the retrieved theory, empirical study and analysis based on the theory and empirical study combined, these are used to improve and supermarket concept. By having Lean as a foundation and implementing the different chosen parts of the concept improvements can be found in several different areas, JIT works towards minimizing stock and other types of waste by delivering the right type of goods, in the right quantity at the right time. The supermarket concept and Kanban system is tools to support JIT, by using the different tools and formulas presented the inventory levels, the right amount of Kanban cards and the correct usage of the supermarket concept can be implemented. By using the theories presented regarding tow-trains and storage location the flow of goods within the supermarket concept can be improved towards making it more efficient without compromising the set SL of the supermarket. SKU pick density, number of containers loaded per trip and the number of tow-train operators in the concept will also be affected in making it more efficient and improving the utilization of tow-trains and supermarket. By using the presented theories in the case study the authors believe that a similar organization as the case company could improve the efficiency of a supermarket concept.

6.2 Future research

This thesis is investigating a new area that the authors could not find specialized towards a supermarket concept but in general for a warehouse. A research regarding several case companies located in more than one region is a suggestion for further research. Due to this the authors recommend a future study within the placement of goods within a supermarket concept. An identified problem at the case company was the uneven flow of goods and there could not be found research in this matter, thereby the authors also recommend a further research within the area of evening out the flow of the goods within a supermarket concept.

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DEVELOPMENT MODEL THAI CUISINE APPLICATION

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ABSTRACT

O2O mobile e-commerce as a new marketing model, the integral of goods and services online and offline businesses provided so that the Internet and mobile customer end become another important window of the store operations. Related operating businesses require a detailed understanding of the specific factors O2O mode mobile e-commerce customer satisfaction. Only a detailed understanding of consumer psychology in the future be able to move in O2O e-commerce model as soon as possible to promote user acceptance and use of related products and services in order to achieve operating mode online and offline, online and offline synchronization, further enhance competitiveness. In this paper, Thai cuisine APP, for example, combining the characteristics of mobile e-commerce O2O mode, refer to the relevant results of mobile e-commerce satisfaction research from online (online trading) and line (field spot transactions) two angles to consider the impact of Thailand factors cuisine APP satisfaction, consumer habits and disposable income, software popularity, and the extent of payment and acceptance of things. According to the results of empirical research data and calculation conclusions and make recommendations. This study include: factors affecting Thai cuisine APP customer satisfaction; service and security, communication services, marketing specialties Thai cuisine APP goods, the quality of business goods and services, online payment network, product information quality Thai cuisine APP Thai cuisine APP design.

Keywords: Thailand; Cuisines APP; mobile commerce; O2O;

I. BACKGROUND

With the rapid development of 3G / 4G mobile networks, the popularity of smart phones use so that the mobile e-commerce are becoming popular, the mobile network has a fast and convenient features, the rise boom worldwide.

The end of 2015 the number of Chinese Internet users has exceeded 632 million mobile phone users number 527 million, Internet penetration rate has reached 46.9%, the size of online shopping users has exceeded 350 million. This shows that China's online shopping in a larger space for development, the scope of the more widely.

With the emergence of mobile APP, Chinese people have become accustomed to using the App gourmet meal. Such as Food application, Food delivery nowadays Chinese people love these application. These application very popular in Weibo (Same as Twitter):

Douguo (<http://www.douguo.com/>) 1,878,000 users

Meishi Jie (<http://www.meishij.net/>) 880,000 users

Mei Shi Tian Xia (<http://www.meishichina.com/>) 870,000 users

Xia Chu Fang (<http://www.xiachufang.com/>) 630,000 users

Hao Dou Cai Pu (<http://www.haodou.com/recipe/>) 176,000 users

Mei Shi Hang (<http://www.weibo.com/mibang/>) 139,000 users

Wang Shang Chufang (<http://home.ecook.cn/>) Online Kitchen 51,000 users

Xin Shi Pu (<http://www.xinshipu.com/>) 9,000 users

According to the Thai Nielsen report

(Reference: <http://th.mofcom.gov.cn/article/jmxw/201504/20150400952364.shtml>), Thailand smartphone users classified by type of use and personality carried out to analyze the various types of user groups using smartphone depth information, including when you use an application (APP) long, data usage and personal characteristics, etc. The report predicts that Thailand smartphone user base in the period 2013 to 2015 the annual cumulative average growth rate (CAGR) of 15%, this growth impetus came mainly from the less than 30-year-old user group, this group in the smart phones users accounted for 58 %.

Further comprising the following main points:

- About 160 minutes when the Thai people use daily average smartphone;
- Thai smartphone users can be divided into six types, including web chat keen type, a new type of mobile phone uses, the use of advanced type, call predominant, hobbies download data type and search type;

"Thailand through APP software" is the only software in Thailand Thai food containing the APP. And all the Chinese people travel to Thailand to use, Thai people commonly use APP software for game. Compared with China, the case of using Thai cuisine APP software obviously unpopular. Thailand and Rangsit university students did not use such a software delivery and personalized according to individual field interview survey results, almost Thai students are not aware of APP ordering items, basic or telephone ordering based.

2. THE SIGNIFICANCE AND PURPOSE

The purpose of this paper, One is the study of Thai cuisine APP because of underdevelopment, field operations with case analysis, to arrive at appropriate solutions suggestions, to find solution solve the problem. On the other hand is based around Rangsit University is yet to come in this gourmet meal APP business

opportunities, university student organizations involved in the operation, but also as a pioneering case.

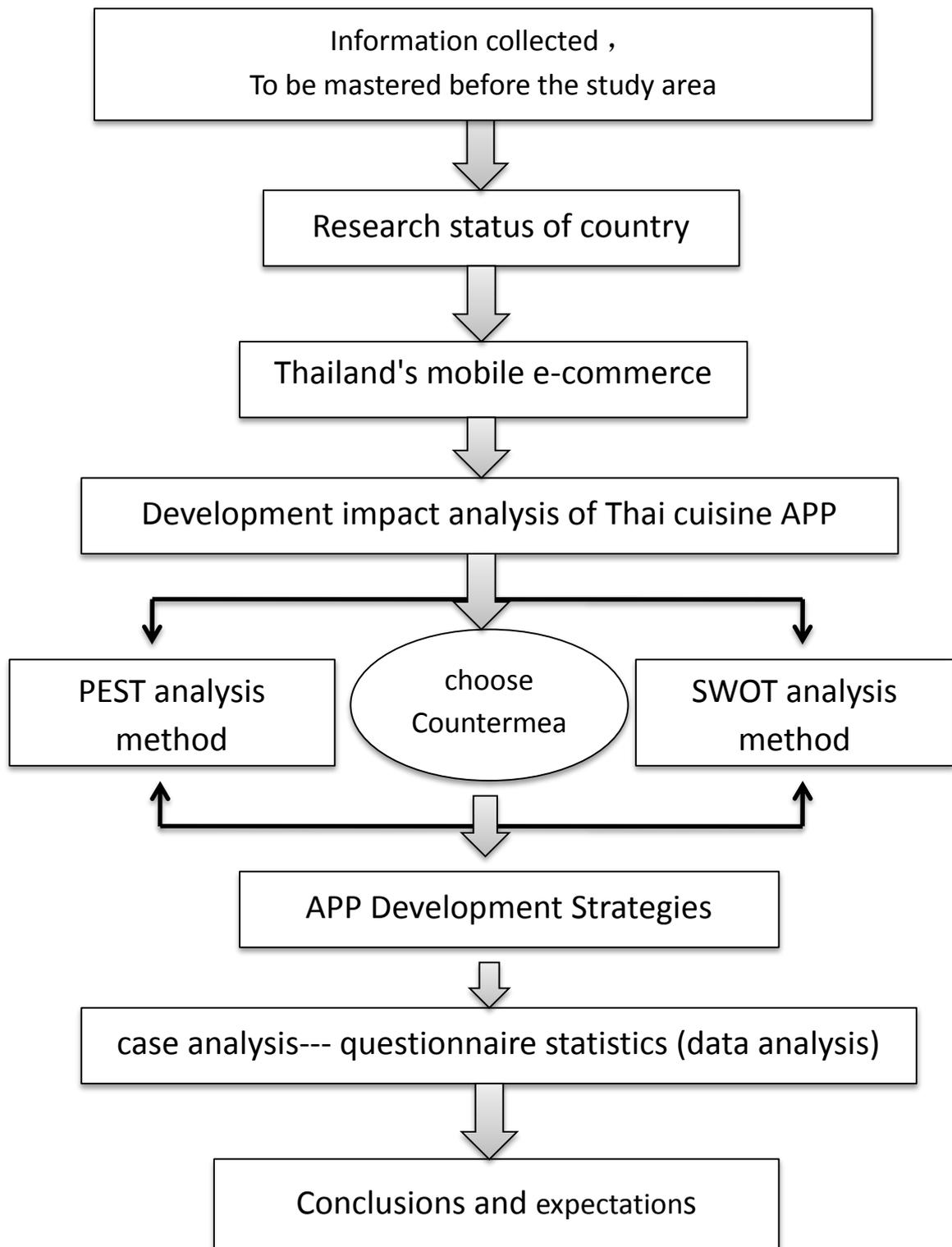
The past Chinese student research on mobile e-commerce has a wealth of research and study in Thailand in this area is very small. Through the development model of Thai cuisines APP conducted pioneering research tentative, can enrich the theoretical achievements in this field, provided a reference for Thai restaurants, mobile e-commerce industry, has important theoretical and practical significance.

(1) Gourmet APP commercial value and marketing value of the restaurant is undoubtedly a positive boost to deepen restaurant brand value, access to the Internet as early as possible, to seize the opportunities, increase competitiveness counterparts are indispensable practical value.

(2) APP food in Thailand is still the primary stage of development, each mobile terminal information is still in the explore stage, has not yet formed a complete business system stable, and therefore, the current research in Thailand cuisine APP this field is not many, especially in a marketing strategy, research system is more scarce, and in the background of the mobile Internet, the development trend of food APP grasp of basic marketing strategy system in a relatively blank slate. Therefore, we can carefully study the bold attempt.

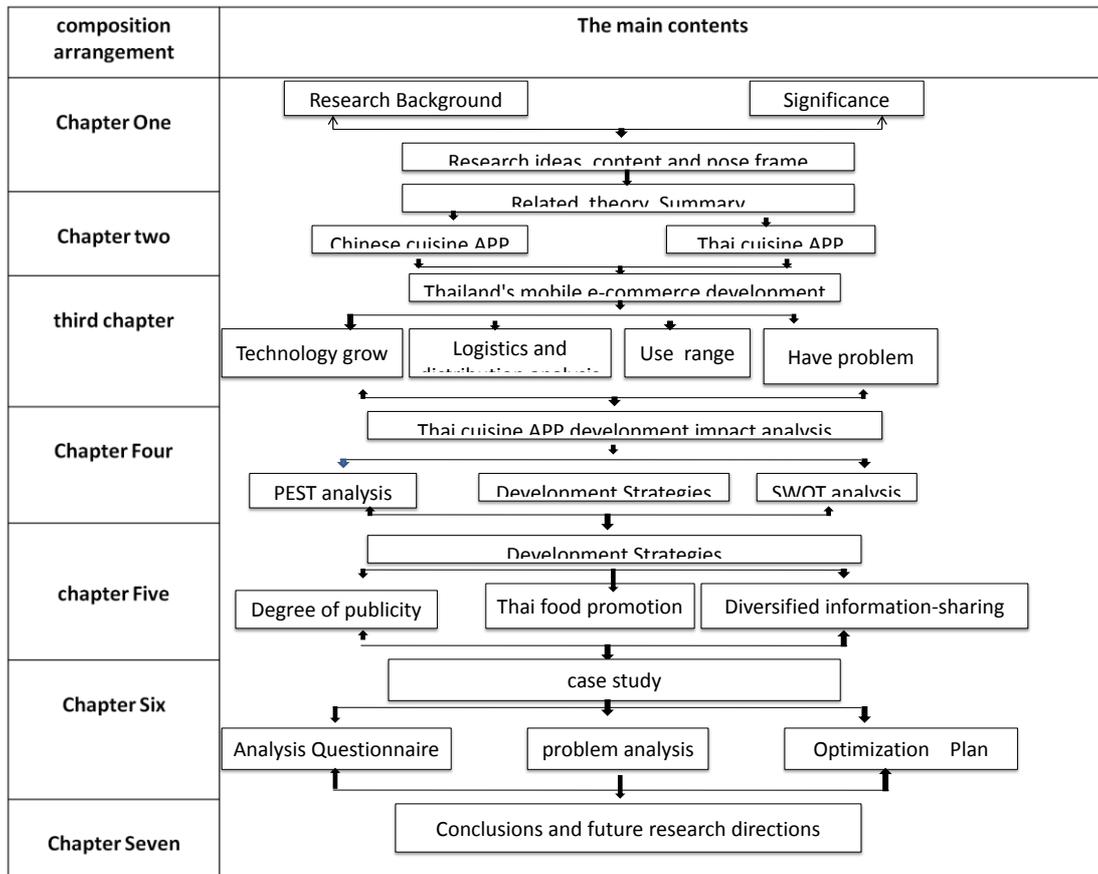
(3) From my study and my experiences of the field operations in the gourmet APP I will use my experience, combined with their marketing expertise background, hope theory cuisine APP marketing strategy to generate some positive meaning.

3. RESEARCH IDEA



4. RESEARCH

The main contents of this paper are as follows:



5. INOVATIVE RESEARCH

In this study, the biggest innovation lies in:

1. By implementing APP software design, operation, express delivery and other offline give practical operation between Thailand's largest electricity supplier and provide a reference, the prevalence of modern network that allows customers to store more energy to good use and get more high profits.
2. Students Rangsit University's simple and convenient ordering services, Chinese-style fast delivery time and according to point food services.
3. Increase the value of Rangsit University restaurants nearby, and a wide variety of cuisine in the detailed recommendation of APP ordering the software, not only across the differences of language and culture of the region so that food, restaurants can make more income greatly increased.

6. LITERATURE REVIEW

6.1 Chinese cuisine APP aspect

Chinese literature for online shopping purchase intent of many factors, mainly due to China's large shopping network and efficient logistics and distribution. For the current study consumer willingness to buy mainly for qualitative analysis and empirical analysis from two angles. Wang Yan, Sha Hongxia, Zhu Lu (2010) that the rise and development of mobile e-commerce to traditional marketing presents new challenges, analysis of consumer psychology is the use of mobile e-commerce business and an important marketing priority. And I think in the beginning of the period mobile e-commerce, business strategy is to induce the network does not believe that the network does not know the people using the network to become, I believe that network, and to achieve fast and efficient customer transactions on the network. Therefore, in the development stage, we should have planned to induce consumers.

Pei Yuling (2011) said the mobile e-commerce in the grasp of consumer psychology and consumer behavior can escort for the development of mobile e-commerce. I very much agree with this view.

Above points are based on theoretical analysis, my study provides a theoretical reference, not only focus on theory and more emphasis on the actual operation.

6.2 Thai cuisine APP aspect

The reality is that by early 2015, Thailand still does not appear ordering a meal and other food APP software, recipes and cooking guides appear only software. APP currently Thai cuisine meal delivery or a vacant land.

US researchers Blanca Hernandez (2011) believed that when people are accustomed to online shopping in the future, consumption experience has not been considered, the online shopping behavior homogeneity strong, that online shopping has been for any income level and any age. Rajiv (2010) in a comprehensive study of the mobile e-commerce found that consumers in online shopping resulting cost and time savings for their choice of online shopping has a decisive role, will therefore enhance the mobile e-commerce platform of satisfaction.

After Groupon from on-line network to buy the world came into view among Western scholars for study buy network focused on the following aspects: First, buy online auction and fixed-price difference between the dynamic network buy Prices and Consumption the relationship between consumer behavior. Second, the network of consumers buy the seller how to set up cooperation mechanisms and the price curve to facilitate transactions. Third, in what consumers buy the network preferences. As for the cuisine of Thailand APP, this theory is limited to the theory, there is no real attempt to APP and dependence of these theories or generate development.

7. RESEARCH METHOD

7.1 This paper uses

(1) Document analysis. Based on the literature collected, analyzed and summarized, based on in-depth analysis of the research literature, pointing out that the current level of research, developments and future direction of development of the theoretical basis of the study provide a strong basis.

(2) Questionnaire. Accurate data can be obtained through the investigation and analysis of field operations research provides some basis.

(3) Case study analysis. Through case studies we can quickly reacted purpose required for the study and make recommendations and countermeasures.

(4) Interview analysis. Through the cooperation of the stores face to face interviews, to ensure the authenticity and validity of information access, and can understand most stores and customers really think, provide a practical basis for the purpose of research and recommendations herein.

7.2 Questionnaire data analysis

The scope of the survey were distributed questionnaires related gourmet meal for APP students and faculty Rangsit University, including various professions and all age groups. 200 questionnaires were distributed and 150 parts recovered.

Multivariate analysis of the main questionnaire (Table I)

Use a table gourmet meal demand APP

Variable Types	Variable values	Frequency	Cumulative Frequency	Percentage	Cumulative Percentage
Do not need	1	6	6	0.0400	0.0400
Anyway	2	9	15	0.0600	0.1000
Might need	3	11	26	0.0733	0.1733
Need	4	98	124	0.6533	0.8266
Very need	5	26	150	0.1733	1.0000

As can be seen from Table I the results of the analysis, almost one sixth of respondents demand for food APP meal there is a demand, only 4% of the people there is no demand.

Table II does not use APP meal reason

Reason	percentage (%)
Internet Prices Cause	8%
Phone does not support Causes	6.7%
Security reasons	26.7%
Do not use operational reasons	17.3%
Just understand, ready to use	25.3%
Like computer use	4%
other	12%

The table above we can see that respondents based phone APP security, do not use or do not use it enough to understand the extent of APP meal.

CONCLUSIONS

Gourmet APP made certain achievements in the development of China's e-commerce technology, which for the promotion of the retail electricity business development has played a positive role. But food APP in e-commerce applications in Thailand, but there are many problems, including Thailand's overall awareness of the APP ordering use weak, do not pay attention to security issues and Internet technologies, network transactions credit problems, professional training question, online payment technology backwardness, profit model problems and logistics and distribution.

In order to effectively promote the application of e-commerce technology APP Thai cuisine, Thai food I think APP should pay attention to technical research and development, improve network security platform; the establishment of e-commerce businesses as soon as industry associations, and actively cultivate high-quality electricity supplier personnel, improve e-commerce the amount of financial investment, personnel training; the implementation of online electronic certified check, money orders and other electronic commerce, commercial credit and bank credit will combine to improve the efficiency of e-commerce online payment; profit model innovation, taking cost-saving way to return a profit. Multi improve food APP software utility function, and promote and improve the use of the number of users.

Thailand with respect to the control network is weak than China, very early introduction Youtube, Ebay, but for mobile phone software has lagged behind many gourmets APP, which certainly had a lot of explicit and implicit questions. E-business applications is very broad concept, which contains a range of very wide angle can be studied relatively more, due to the limited capacity of the individual, it can do to carry out comprehensive analysis from all angles, and their research capacity, literacy and other aspects of the theory, there are certain limitations, such research there are many

imperfections of this article, in future research work needs further study and discussion.

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**THE FEASIBILITY STUDY TO EXTEND THE PARTNERSHIP BETWEEN
INTEL AND TABLET MANUFACTURERS TO THEIR PRODUCT
RETURNS SERVICES AND GAIN OPPORTUNITIES TO REJUVENATE
THE INTEL INSIDE CAMPAIGN IN MALAYSIA MARKET**

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Abstract

This dissertation examines the relationship between satisfaction of product returns services and customer loyalty. The significance of the relationships is analyzed in two different stages which are standard product returns service and the extended product returns service in the business to consumer (B2C) context.

A number of methods are used, including Pearson correlation and multiple regression analysis to analyze the data collected from 273 tablet users in Malaysia. The findings show a positive correlation between product returns satisfaction and customer loyalty in both stages as in agreement with theoretical predictions of positive correlations exists between the variables of customer satisfaction, service quality and customer value leading to customer loyalty in the literatures. This research analyses product returns service as a component of post sales service which affects the service quality by introducing two major components into the extended product returns service which are:

- 1) The extension of manufacturer's standard warranty from one year to two years.
- 2) A guaranteed trade-in value (not less than 30%) which will be realized on the next purchase as a discount when the existing tablet is returned.

Beside addressing the knowledge gap in the field, the work presented here has profound implications for future studies of extended Product Returns policy and may one day help tablet manufacturers and their computer chip supplier namely Intel to differentiate their co-branded product in the intensively competitive tablet market segment.

Keywords: Strategic Product Returns Services, Reverse Logistics Services, Customer Loyalty, Consumer Electronic Products.

Introduction

1.1 Research Background

Intel has been the leader in the semiconductor computing market for decades and enjoyed the biggest share of it with the one of the most successful marketing campaign in the semiconductor history- Intel Inside co-branding campaign. With its strong R&D development and committed towards realizing the Moore's Law: The number of transistors in a dense integrated circuit doubles approximately every two years, developed by Intel's co-founder- Gordon E. Moore, Intel has been comfortably leading its main competitor AMD, with the domination of 80% and 70% market of the notebook and desktop processor market respectively and over 90% market share of the server microprocessor market (Forbes, 2013).

However, the game plan started to change drastically within the last few years with the shrinking of personal computer market and the explosive growth of smartphone and tablet market which are dominated by another 2 American corporations, Qualcomm Inc. who is leading the smartphone processor chip market with 54% market share and Apple Inc. leading the tablet market with 37% market share (Mobile Europe, 2014). Intel is presently trailing behind in less than 1% and 4-5% in the smartphone and tablet markets respectively (Forbes, 2014). The aim of this research is to analyze the tablet end user's perception towards product return services and how it affects the user's experience and their future purchase decision under different scenarios. The findings will lead to formulating marketing proposal which target to apply differentiation focus strategy for Intel to be competitive in the tablet market.

1.2 Statement of Problem

1.2.1 The Challenges for Intel Corporation

2010 International Technology Roadmap for Semiconductors (ITRS) has addressed the new concept of Functional Diversification called "More than Moore". This definition addresses and emerges category of devices which incorporate functionalities does not necessarily scale according to "Moore's Law," but instead provides additional value to the end customer in other areas. The "More-than-Moore" approach allows the non-digital functionalities to migrate from the system board-level into a particular package-level (SiP) or chip-level (System on Chip (SoC)) potential solution and ultimately into Stacked Chip SoC (SCS). Henceforth, it was predicted that the growth will slow at the end of 2013, when transistor counts and densities are to double only every three years, a 50% delay from 2 years as suggested by the "Moore' Law".

The boom of the smartphone and tablet market within the past few years contributed by non-Windows Operating System (Android and Mac) has been worrying Intel. It signifies that the market is no longer relying only on devices with high computing capability which is what Intel has been the best at producing all these years in the fulfillment of the "Moore's Law". Intel has reacted to the change and taken the necessary measures. One of it is the end and complete withdrawal of the desktop board business unit by 2016, which the strategy was to enable Intel central processing unit (CPU) into the Personal Computer (PC) market (1 Intel desktop board sold signifies the sale of 1 Intel CPU). Lisa Graff (2014), Vice President and General

Manager of Desktop Client Platforms Group stated that Intel has been reinventing the desktop computing into All-in-one and mini/ tiny PC.

Based on the current rate of change and adoption of smartphones, web-enabled tablets, GPS systems, video games and wireless home appliances, Morgan Stanley (2010) believed that the mobile web will be bigger than desktop Internet use by 2015 as shown in Figure 1 above. Similar trend is supported by Gartner (2013) who estimated that by 2015, shipments of tablets will outstrip those of conventional PCs such as desktops and notebooks, as Android and Apple's iOS become increasingly dominant in the overall operating system picture shown in Figure 2 below.

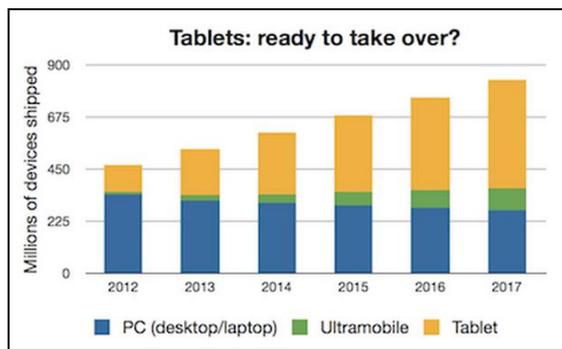


Figure 7: Tablets will overtake desktop and notebook shipments combined, while ultramobiles (e.g., smartphones) will grow

1.2.2 Intel's Aggressive Strategy in the Tablet Segment

Since taking over in 2013, CEO Brian Krzanich has made a number of sweeping changes designed to counteract a slump in PC sales, including opening Intel's cutting-edge factories to other chipmakers willing to pay for access to them. In May 2014, Intel reached an agreement with Chinese SoC specialist, Rockchip to make chips for inexpensive tablets with Android platform. (Reuters, 2014)

The report also stated that Intel has hired Amir Faintuch, a senior executive at rival Qualcomm Inc. as the senior vice president and co-general manager of the Platform Engineering Group who is expected to bring his experiences in designing SoC, which combine features like modems, Wi-Fi and memory for the smartphones and tablet to complement the area where Intel has been lacking behind. This reflects the determination of Intel to improve the struggling mobile business segment.

Intel's problem of selling Bay Trail chip as the entire platform is that it cost about \$20 more than Qualcomm's chip to implement, making it not cost effective for the OEMs to use on a tablet below \$250 even though it offers more performance. OEMs will rather use the \$20 to improve something more visible, e.g., bigger battery, higher resolution screen, or premium chassis. The good news is that the subsidies are believed to be unnecessary when the new products hit the market in 2015. The BOM cost for the new Broxton chip will be \$20 cheaper than for Bay Trail to integrate into a tablet system. Furthermore, the new SoFIA, with its smaller die size and greater integration, is expected to cost even less. By then the heavy contra revenue investment to boost Bay Trail's sales is believed to be reduced significantly (Forbes, 2014).

1.2.3 Challenges for the Original Equipment Manufacturer (OEM)

The total worldwide PC shipment as 74.4 million units in 2Q14, a year-on-year decline of -1.7% which is much better than the projected decline of -7.1% for the quarter and it is the smallest decline since the second quarter of 2012. However, this strength is believed to be driven by the rebound from the weaker demand last year and potentially the short-term business PC replacement activities therefore it is not being seen as a motive to raise the long-term outlook of PC. Despite the top 5 PC vendor's average growth of 9.8% year on year in 2Q14 broken down on Table 1, IDC (2014) believes that the PC industry remains intensely competitive, with factors such as economy of scale and channel reach continuing to add to the shift toward mobility and new designs in driving market consolidation.

OEM	2Q14 Shipments	2Q14 Market Share	2Q13 Shipments	2Q13 Market Share	2Q14/2Q13 Growth
1. Lenovo	14,563	19.60%	12,648	16.70%	15.10%
2. HP	13,644	18.30%	12,377	16.40%	10.20%
3. Dell	10,448	14.00%	9,230	12.20%	13.20%
4. Acer Group	6,120	8.20%	6,273	8.30%	-2.50%
5. ASUS	4,614	6.20%	4,466	5.90%	3.30%
Others	24,974	33.60%	30,661	40.50%	-18.50%
All Vendors	74,362	100.00%	75,656	100.00%	-1.70%

Table 4 : Top 5 Vendors, Worldwide PC Shipments, Second Quarter 2014 (Preliminary) (Shipments are in thousands of units)

Gartner (2014) has the similar projection and expecting the traditional PC market continue the downward trend to contract 6.7% in 2014 and 5.3% in 2015 as shown in Table 2.

Device Type	2013	2014	2015
Traditional PCs (Desk-Based and Notebook)	296,131	276,221	261,657
Ultra mobiles, Premium	21,517	32,251	55,032
PC Market Total	317,648	308,472	316,689
Tablets	206,807	256,308	320,964
Mobile Phones	1,806,964	1,862,766	1,946,456
Other Ultramobiles (Hybrid and Clamshell)	2,981	5,381	7,645
Total	2,334,400	2,432,927	2,591,753

Table 5: Worldwide Device Shipments by Segment (Thousands of Units)

1.2.4 Challenges in the Tablet Segment

IDC (2014) has lowered the forecast of worldwide tablet and 2-in-1 tablet convertible laptop from 260.9 million units in 2013 to 245.4 million units in 2014. The new forecast represents a 12.1% year-over-year growth rate, which is significantly lower than the 51.8% year-over-year growth rate marked in 2013. IDC predicted that the slowdown is caused by 2 major issues. Firstly, consumers are keeping their tablets, especially the higher-cost models much longer than originally anticipated whereby the existing tablet is often passed to another family member when they buy a new one. Secondly, the rise of phablets – smartphones with 5.5-inch and larger screens – are

causing many people to second-guess tablet purchases as the larger screens on these phones are often adequate for what can be done on a tablet. This is aligned with Gartner (2014) who also estimated that sales of tablet will see a relative slowdown in 2014 to reach 256 million units, an increase of just 23.9 percent from 2013, a significant drop from the aforementioned 51.8% growth of 2013.

1.3 Opportunities

Accounts	2011	2012	2013
Hewlett- Packard Company (HP)	19%	18%	17%
Dell	15%	14%	15%
Lenovo	9%	11%	12%
Total	43%	43%	44%

Table 6: Net revenue breakdown of Intel (2013) Top 3 customers

Intel and the OEMs have a common problem whereby the shrinking of PC market is much worrying as projected by ITC and Gartner. What making it worse for Intel is the sign of slowing down of the tablet market which Intel has invested heavily into. The top 3 players in computing business contribute 43% of Intel's revenue as shown in Table 3 and it justifies the need for Intel to partner with these OEMs to find a solution to boost the tablet sales. These OEMs need to be encouraged to choose Intel chips for their tablet products and it can only be accomplished if the demand of tablet powered by Intel's chip grows significantly. Therefore, Intel needs to connect its brand to the tablet buyers by duplicating the success of Intel Inside co-branding strategy in the PC market.

1.4 Research Questions

1. What are the factors that affect customer's buying behavior for tablet?
2. How do Product Return services affect customer loyalty?
3. How to reposition/ redesign Product Returns to help Intel and the OEM partners to win in today's competitive market place?
4. How to motivate consumer to ask for a tablet powered by Intel chip by replicating the success of Intel Inside co-branding campaign in the PC market?

1.5 Research Aim and Objectives

The aim of this research is to appraise the factors that affect tablet user's satisfaction and loyalty in order to study the feasibility of strategizing Intel's reputable Product returns services from B2B (business to business) to B2C (business to consumer) context and helps both Intel and its OEM partners to win in the tablet market. The findings are critical in helping the sales and marketing organization to realize the potential and value of Product Returns in obtaining design wins from the OEM customers. The following specific objectives are established to understand how to extent Intel's Product Returns services to achieve differentiation focus strategy in the competitive tablet market:

1. To critically evaluate the factors that affect customer satisfaction on tablet product, product returns services and customer loyalty.
2. To critically evaluate and understand customer's perception of product returns services.

3. To analyze how to gain customer value by repositioning/ redesigning Product Returns services which will help Intel and the OEM partners to achieve differentiation focus in today's competitive market place.
4. To analyze how to drive customer's demand of the tablet powered by Intel chip in order to replicate the success of Intel Inside co-branding campaign in the PC market.

2.0 LITERATURE REVIEW

This chapter reviews the literatures done by other researchers that are relevant to the scope of this research. The literatures of marketing (Co-branding, relationship and services), customer satisfaction, customer loyalty and customer value will be critically reviewed. Theoretical frameworks formed by other researches will also be shown, compared and discussed along the way of forming the conceptual framework of this research.

2.1 Definitions

2.1.1 Product Returns

The notion of "Product Returns" in the context B2C is revealed in different streams of literature. They are related to money back guarantees retailers offer to the end customers whereby the risk of product mismatches the customer's pre-purchase expectations was addressed. Mollenkopf et al. (2011) discovered in her in-depth case studies whereby operations need to integrate with marketing in the returns management context on functional level to improve corporate resources alignment and create higher customer value. Kandallu and Pattanaik (2012) added that warranty service is a key factor in attaining market success by ensuring customer satisfaction and attracting new customers.

2.1.2 Reverse Logistic

The "reverse logistics" term is also often linked to Product Returns in which it has been defined more comprehensively from the logistic perspective. Hawks (2006) emphasized that reverse logistics is the process of transferring goods from its final destination to capture value or perform proper disposition which include remanufacturing and refurbishing activities. Although the efforts in redesigning packaging to reduce waste and transportation pollution are important activities, they might only be classified as the second priority in the overall importance of reverse logistics.

Under the intense competitive environment, the retail industry has utilized return policies and turned it into a competitive weapon. They have evolved and becoming more influential than before whereby in general the large retailers e.g., Wal-Mart or Kmart are able to influence manufacturer on the returns policies. On paper, retailers' profitability is reduced by returns as much as 4.3 percent which is marginally more than manufacturers' 3.8 percent (Hawks, 2006).

2.1.3 The Significance of Returns Management

Arberdeen Study (2010) revealed that manufacturers averagely spend 9% to 15% of total revenue on returns but they are often unaware of the impact returns management can make on their resources, customers or their bottom line. Greve and Davis (2012) emphasized that improvement on reverse logistics can result a revenue increase up to 5%. Dale et al. (2013) stressed that firms can no longer afford to deprioritize reverse logistics which is critical to brand protection, sustainability and profitability hence reverse logistics needs to be transformed into a core competency. Greve and Davis (2012) warned that although reverse logistics can improve customer satisfaction and increase profits, a weak reverse logistics program can drive customers away and cause the increase of costs and liabilities.

Strategically, firm must develop structures, policies and processes to take care of the reverse flow of product, finances and information whereas operationally, the process involves their physical flow (Rogers et al., 2002).

2.1.4 Service Quality

Perceived service value is one of the competitive advantage factors and fundamental predictor of customer satisfaction, financial performance and brand loyalty (McDougall and Levesque, 2000; Cronin et al., 2000; Anderson et al., 1994) while service quality is human dependent which depends on the staffs who deliver that service (Lehtinen, Lehtinen, 1982; Bhatti et al., 2011).

The importance of product reliability has grown greater due to few reasons e.g., market competition, high servicing costs resulted from with new technologies and customer's demand for longer warranty period. Rahman and Chattopadhyay (2004) suggested firms to cope with the issue by offering after sales service to the customer. Apparently, manufactures in recent years have started to extend the warranty coverage period. Rahman and Chattopadhyay (2004) developed a framework for long-term warranty policies as shown in Figure 3 below.

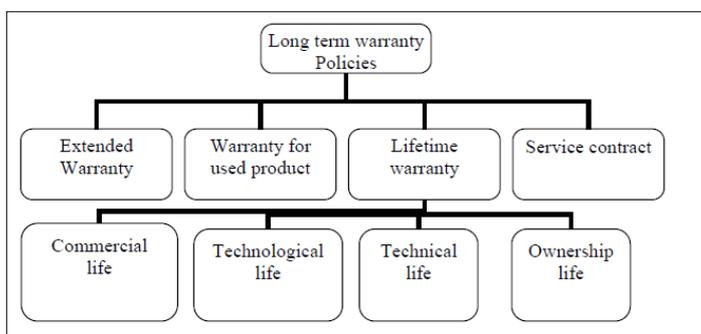


Figure 3: A framework for long-term warranty (Rahman and Chattopadhyay, 2004)

Chattopadhyay and Murthy (2000; 2001; 2004) researched the various warranty terms focusing on the second hand products. The market of used products is a fraction of the

total market of used+ new whereby it has been growing continuously, thanks to the increasing of the new product launch rate and the expected life of products due to advances technology. From the analysis presented earlier, there are strong reasons to believe the tablet market is undergoing the similar scenario. Since warranty is deemed to be one of the most important elements of after sales service, we believe warranty terms and conditions (T&Cs) will significantly affect the perceived service quality which leads to customer satisfaction. The limited literatures found on this area justified the interest to understand how the satisfaction on Product Returns services affects the overall satisfaction of a customer who has purchased a tablet. These reasonings and the associated evidences lead to the following hypotheses:

H1A: There is a significant positive relationship between Product Returns Satisfaction (PRS) and Customer Satisfaction (CS).

2.1.5 Customer Value

Product quality can affect customer's perception of value in multiple ways and eventually the value received from the usage of the product will be evaluated by the cost/benefits which associate with the price paid by customer (Bowman and Ambrosini, 2000; Gronroos, 2008).

2.1.6 Customer Satisfaction& Customer Delight

Kotler & Keller (2009, p.789) defined satisfaction as someone's feelings of disappointment or pleasure after comparing a product's perceived performance's with his or her expectations. Solomon (2009, p. 34) distinguished that customer purchased the product whereas consumer eventually uses the product and when both parties are pleased with the product or services they received, it is termed as satisfaction. Because expectation and the perceived value are individual, satisfaction will vary from one person to another.

2.1.7 Customer Loyalty

The loyalty of customer manifests itself in a different behaviors, the more common one is to recommend the service provider to other customers and repeatedly patronizing the provider (Dwyer et al. 1987; Fornell 1992) whereby these two behaviors are treated as indicators of loyalty by a number of studies (Sirdeshmukh et al. 2002; Zeithaml et al. 1996). This explains the reasons of considering recommendation and patronization as two main evidences of customer loyalty in this research.

2.2 Theoretical Framework

2.2.1 The Relationship between Service Quality and Customer Satisfaction

Several literatures were studied and supported the fact of customer satisfaction is achievable by improving service quality (Oliver, 1993; Anderson & Sullivan, 1993; Fornell, 1992; Spreng & McCoy 1996).

2.2.2 The Relationship between Customer Value and Customer Satisfaction

The traditional macro-model of customer satisfaction shown as Figure 4 formed the foundation of much of the research in customer satisfaction over the past decade. It defined satisfaction feeling as a state of mind whereby different consumer may have different levels of satisfaction for different parts of a product/service experience resulted from the individual evaluation of perceived performances leading to the perceived disconfirmation.

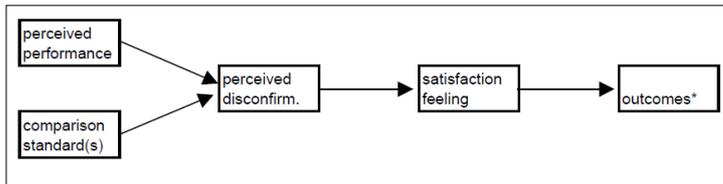


Figure 4: Traditional Macro-Model of Customer Satisfaction (Woodruff & Gardial, 1996)

*includes intent to purchase, word-of-mouth, loyalty, and complaints.

Later research produced the Customer Value- Satisfaction linkage model shown in Figure 5. This model emphasized the concept of value as the driving force in making purchase and producing satisfaction outcome that is a brief psychological reaction to a component of a value chain.

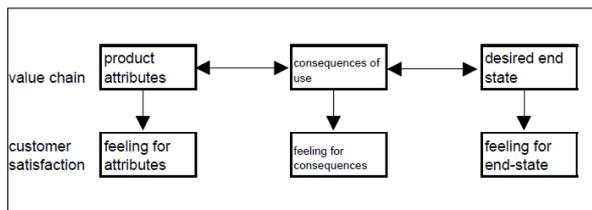


Figure 5: Model of Linkage of Customer Value Chain to Customer Satisfaction (Woodruff & Gardial, 1996)

Oliver (1999) proposed another model of the value- satisfaction relationship in Figure 6 whereby the important point about this model is that customer value is quantified by using gross benefit (output) minus cost judgments by consumers (input).

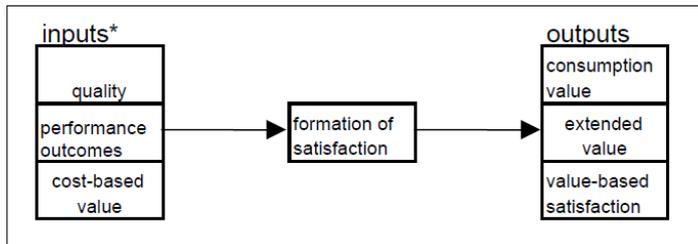


Figure 6: Model of Linkage between Satisfaction and Value (Oliver, 1999)

* In Oliver's model, excellence criteria lead to quality, and sacrifices lead to cost-based values

Moreover, the studies from Sivadas & Baker-Prewitt (2000), Su et al. (2002) added that customer satisfaction and service quality are highly dependent to each other. They explained that service quality could be affected by experiences and perceptions of value whereas customer satisfaction is a reflection of feelings on different encounters with the firm (Su et al., 2002).

2.2.3 The relationship between Customer Satisfaction and Customer Loyalty

Customer loyalty can drive customer satisfaction, with possibility of reciprocal effect exists in between. Loyal customers attain important personal and noneconomic satisfactions from the repetition of social encounter with seller and eventually become more satisfied than disloyal customers (Dwyer et al., 1987; Shankar et al., 2003). Heskett et al. (1997) suggested that customer loyalty should increase rapidly after customer satisfaction passes a certain threshold and reaches another level called customer delight. Ahluwalia et al. (1999) pointed out that loyal customers are much less susceptible to negative information about a service than are disloyal customers. Lam et al. (2004) have discussed and supported the theory of satisfied customers being more willing to patronize the seller again and make recommendation to others which was suggested by Oliver (1999) and Reichheld and Sasser (1990). Bob Hayes (2011) argued that though the customer satisfaction effect is believed to be relevant for the patronage component, there are no convincing facts to suggest that it applies the same to the recommend component. Jack and Murthy (2004) defined satisfaction as a likelihood of a customer not switching to buy another brand when a new item is needed. Specific servicing strategies which can be applied to reduce warranty costs and yet increase customer satisfaction were discussed. The foregoing discussion leads to the following hypotheses:

H2_A: There is a significant positive relationship between Customer Satisfaction (CS) and Customer Loyalty (CL).

H3_A: There is significant positive relationship between Product Returns Satisfaction (PRS) and Customer Loyalty (CL) with Customer Satisfaction (CS) as the mediating factor.

Although this study emphasis on the B2C context, it is interesting to discover that customer satisfaction in the B2B context where a component manufacturer, e.g., Intel aims to achieve within the relationship with its OEM customers is often defined as a positive affective state resulting from the appraisal of all aspects of a firm's working relationship with another firm (Geyskens, 1999).

Several studies suggested that the loyalty curve is relatively flat after satisfaction is achieved but climbs rapidly as a result of delight (Coyne 1989; Oliva, Oliver and Macmillan 1992; Dick and Basu 1994). Consistent with the customer satisfaction "threshold" argument (Heskett et al 1997), researches related to the customer delight concept found that "tremendously satisfied" or "delighted" customers are relatively more likely to remain as customers of a firm comparing to those who are simply "satisfied" (Oliver, Rust, and Varki 1997). There were arguments from other researches stating that increased loyalty is the outcome of delighted customers ignoring competing brands (Anderson and Mittal, 1997).

2.3 The Valuable Secondary Market

Mollenkopf (2011) stressed the need of putting marketing focus on developing the secondary markets to ensure the remanufactured products or components can be successfully sold. Value can be created by introducing innovative ideas to stretch beyond the boundaries of products and services e.g., variety of sale terms, pricing program options which can affect customer behaviors (Mollenkopf et al., 2011).

Although very limited literatures were found on the involvement of component manufacturer in Product Returns services of the OEM products in the B2C context, whereby co-branding strategy is applied, it is empirical that a creative idea on product returns can be well marketed to attract customer's attention and help both component supplier and OEM to increase the sales of computer chips and tablet respectively. Therefore, I posit the following hypotheses:

H4A: Customer Value (CVE) is created by extending the Product Returns Services.

H5A: There is a significant positive relationship between CVE: Customer Value (Extended Product Returns) and CSE: Customer Satisfaction (Extended Product Returns).

As discussed earlier, the mechanism to secure customer loyalty is highly complicated and often misleading the organisations. Hence, it is valuable to understand how consumer reacts towards a contracted deal which its aim is to secure customer loyalty in the dimensions of patronizing and making referral. On the basis of the foregoing evidences and arguments, I advance the following hypothesis:

H6A: There is a significant positive relationship between CVE: Customer Value (Extended Product Returns) and CLE: Customer Loyalty (Extended Product Returns)

2.4 Conceptual Framework and Hypothesis Development

In the development of the conceptual framework (Figure 7), the literatures related to the key focus of the research are reviewed. In the basis of the review, the key construct of the framework is defined. At the same time, the theoretical fundamentals and existing evidences which support the relationships accommodated in the framework are described. The first portion of the model aims to test the relationships of the standard Product Returns policy of OEM tablet products; whereas the 2nd portion will test the relationships of the extended Product Returns policy which is driven by Intel's Co-branding effort with the aim to study its effects on customer loyalty to both Intel and OEM Co-branded tablet products.

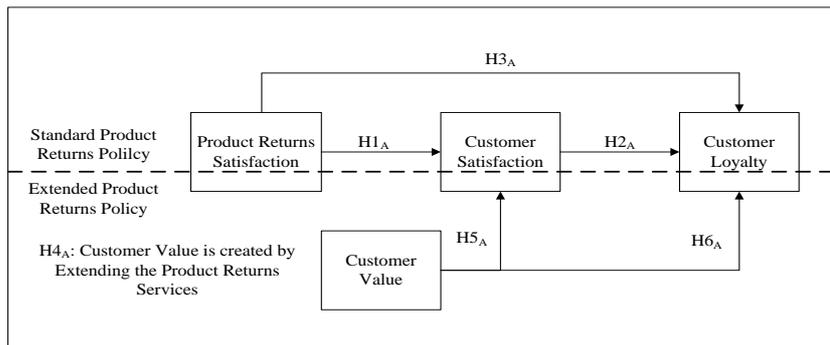


Figure 7: Conceptual Framework

2.5 Opportunities for Intel

The fact is that with the rapid change in the consumer electronic market (very short product life cycle and moving rapidly towards ultra-mobility) and the much slimmer profit margin, does tablet and smartphone manufacturer's expectation remains the same as they are for PC? It boils down to the question of whether the corporate's resource allocation on Product Returns creates the level of customer value as it was intended for? Is today's "costly" return policy providing the competitive advantage for Intel? Product returns however can be very challenging for manufacturing firms who produce and sell products when the impact of returns is overlooked or not properly understood. Returns are often being seen as a necessary cost-of-doing business (Blackburn et al., 2004) and therefore much focus is put on cost minimization, and eventually misses the opportunities to recapture value and build customer loyalty (Mollenkopf et al., 2007a). Henceforth, opportunities were observed for Intel to leverage the strength of its Product Returns in the B2B context and extend it to reach out to the end customers in the B2C marketplace.

3.0 METHODOLOGY

3.1 Questionnaire Design

The questionnaire has 40 questions in total and is divided into 2 sections. The first section aims to test the satisfaction of the existing tablet user towards the existing Product Returns service of the purchase he/she has made and to understand its significance towards customer satisfaction and loyalty.

On the 2nd section, response will be collected after the standard product returns/warranty policy is extended by introducing 3 major components as shown:

- Extending the manufacturer's standard warranty from 1 year to 2 years.
- Offering the option for the buyer to secure a trade-in price (30% of the tablet retail's price) which is applicable to be transacted as a discount on the next purchase. This could be conceptualized as product upgrade.
- The tradeoff is the small portion of premium (5-10% of the tablet retail's price) will be added to the retail price.

Respondent will be briefed whereby the base-line of 30% trade in value is calculated based on the offer from the leading consumer electronics chain stores in Malaysia, SenQ (refer Appendix B). Respondent will also be informed that the above offer comes with a premium of 5-10% of the tablet's cost and only applicable to tablet powered by Intel because this is a partnership program between the OEM and Intel (OEM& Intel Co-branded). Respondent's perception of the value on the total package will be asked, following by the questions to test the perception towards the new extended Product returns services to understand how it leads to creating customer value, satisfaction and loyalty.

3.2 The Additional Market Intelligence

To justify the business value of this project from OEMs' perspective, question no.7 is designed to investigate the degree of customer's buying decision being affected by the availability of different tablet brands in the market. The result will provide a brief idea to the OEMs about the intensity of market competition. In addition, Question no.39& 40 are designed to respectively ask the tablet owner and non-tablet owner about the likelihood to be attracted by the extended product warranty policy to make the purchase. Findings from these 3 questions, although will not be tested on the hypotheses but they serve as a catalyst to motivate OEM to partner with Intel on strategizing the product return services.

3.3 Variables and Measurements

Identified variables utilized to develop the conceptual framework are presented in Table 4.

Product Returns Condition	Factor that affects the feasibility of extending the partnership between Intel and tablet manufacturers to their product return services.	Variable Category
Standard	Product Returns Satisfaction (PRS)	Independent Variable (IV)
Standard	Customer Satisfaction (CS)	Independent Variable (IV)
Standard	Customer Loyalty (CL)	Dependent Variable (DV)
Extended	Customer Value (CVE)	Independent Variable (IV)
Extended	Customer Satisfaction (CSE)	Independent Variable (IV)
Extended	Customer Loyalty (CLE)	Dependent Variable (DV)

Table 4: List of Identified Variable

4.0 DATA ANALYSIS OF FINDINGS

4.1 Demographic

Items	Demographic Factors	Categories	Frequencies	Percentage to entire sample size	
1	Gender	Male	222	47.80%	
		Female	242	52.20%	
2	Ethnicity	Malay	171	36.90%	
		Chinese	261	56.30%	
		Indian	32	6.90%	
		Others	0	0.00%	
3	Age	Less than 18	129	27.80%	
		18-30	249	53.70%	
		31-45	64	13.80%	
		Above 45	22	4.70%	
4	Category	Student	124	26.70%	
		Non- Student	340	73.30%	
5	Tablet Ownership	Yes	273	58.80%	
		No	191	41.20%	
	Tablet Ownership Breakdown	Categories	Frequencies	Percentage to entire sample size	Percentage to Tablet Owner Population
5.1	Use Duration	Less than 2 years	115	24.80%	42.10%
		More than 2 years	158	34.10%	57.90%
5.2	Product Returns Encounter Experience	Yes	70	15.10%	25.60%
		No	203	43.80%	74.40%

Table 5: Breakdown of the Respondents' Background Demographics

4.2 Result of Descriptive Analysis

Independent Variables (IV)	Minimum	Maximum	Mean	Standard Deviation
Product Returns Satisfaction (PRS)	1.25	4.50	2.927	0.698
Customer Satisfaction (CS)	1.00	4.50	3.120	0.845
Customer Value (Extended Product Returns) (CVE)	3.00	5.00	4.084	0.472
Customer Satisfaction (Extended Product Returns) (CSE)	2.60	4.60	3.743	0.475
Dependent Variables (DV)	Minimum	Maximum	Mean	Standard Deviation
Customer Loyalty (Extended Product Returns) (CLE)	1.80	4.80	3.432	0.476
Customer Loyalty (Standard Product Returns) (CL)	1.80	4.80	3.006	0.666

Table 7: Descriptive Statistic

4.3 Cross Tabbing Analysis

Cross Tabbing Combination	Frequencies	Significance	Significant	Cramer's V	Strength
Age* Product Returns Encounter Experience	273	0.798	No	N.A.	N.A.
Age* Tablet Ownership	464	0.001	Yes	0.187	Low
Age* User Duration	273	0	Yes	0.286	Moderate
Student or not* Product Returns Encounter Experience	273	0.88	No	N.A.	N.A.
Student or not* Tablet Ownership	464	0.517	No	N.A.	N.A.
Student or not* User Duration	273	0.029	Yes	0.132	Low
Gender* Product Returns Encounter Experience	273	0.659	No	N.A.	N.A.
Gender* Tablet Ownership	464	0.942	No	N.A.	N.A.
Gender* User Duration	273	0.031	Yes	0.131	Low
Ethnicity* Product Returns Encounter Experience	273	0.861	No	N.A.	N.A.
Ethnicity* Tablet Ownership	464	0.449	No	N.A.	N.A.
Ethnicity* User Duration	273	0.069	No	N.A.	N.A.

Table 8: Chi-Square Output

VARIABLES	Product Returns Encounter Experience	Tablet Ownership	User Duration
Age	Not significant	Significant	Significant
Student or not	Not significant	Not significant	Significant
Gender	Not significant	Not significant	Significant
Ethnicity	Not significant	Not significant	Not significant

Table 9: Result of significance

While the $P < 0.05$ served as the indication of significance, validation is carried out on Chi Square output result to confirm the expected counts calculated by SPSS reflected significant difference to the observed counts of each affected variables illustrated as shown in bolded font above. All affected variables shows the result of expected counts not less than 5 and therefore these findings are considered as statistically significant.

Scores	Strength of Association
>0.5	High
0.3-0.5	Moderate
0.1-0.3	Low
0-0.1	Little if any

Table 10: Characterizations of strength scores for chi square test, Applied Statistics Handbook (2014)

In the correlation strength analysis, Cremer's V is chosen because it fit into this condition of the analysis whereby one of the variables has more than 2 categories whereas the Phi doesn't. Based on the characterizations of strength score in Table 9, the findings are:

- Age has a low and significant association with both Tablet Ownership and User Duration.
- Category (Student or Not) has a low and significant association with User Duration.
- Gender has a moderate and significant association on User Duration.

Therefore, the inferential analysis significantly predicted that female student (age range of 18-30) in Malaysia tends to own a tablet for more than 2 years. This finding would provide useful insights for product marketing purpose in terms of strategizing marketing mix whereby the young female students tends to be an existing tablet owner for more than 2 years. To refer to what IDC (2014) has suggested, this group of people would have received the used tablet from their family members or they are switching to use a phablet.

4.4 Pearson Correlation Analysis

Value of the Correlation Coefficient	Strength of Correlation
1	Perfect
0.7-0.9	Strong
0.4-0.6	Moderate
0.1-0.3	Weak
0	Zero

Table 11: Dancy and Reidy's (2004)'s categorization rule of thumb for correlation coefficient value.
Source: University of Strathclyde Humanities & Social Sciences.

Correlations							
		Product Returns Satisfaction	Customer Loyalty (Standard Product Returns)	Customer Satisfaction	Customer Value (Extended Product Returns)	Customer Satisfaction (Extended Product Returns)	Customer Loyalty (Extended Product Returns)
Product Returns Satisfaction	Pearson Correlation	1	.909**	.679**	.198**	-.011	.250**
	Sig. (2-tailed)		.000	.000	.001	.856	.000
	N	273	273	273	273	273	273
Customer Loyalty (Standard Product Returns)	Pearson Correlation	.909**	1	.640**	.220**	.017	.351**
	Sig. (2-tailed)	.000		.000	.000	.786	.000
	N	273	273	273	273	273	273
Customer Satisfaction	Pearson Correlation	.679**	.640**	1	.171**	-.057	.187**
	Sig. (2-tailed)	.000	.000		.005	.352	.002
	N	273	273	273	273	273	273
Customer Value (Extended Product Returns)	Pearson Correlation	.198**	.220**	.171**	1	-.007	.175**
	Sig. (2-tailed)	.001	.000	.005		.904	.004
	N	273	273	273	273	273	273
Customer Satisfaction (Extended Product Returns)	Pearson Correlation	-.011	.017	-.057	-.007	1	.219**
	Sig. (2-tailed)	.856	.786	.352	.904		.000
	N	273	273	273	273	273	273
Customer Loyalty (Extended Product Returns)	Pearson Correlation	.250**	.351**	.187**	.175**	.219**	1
	Sig. (2-tailed)	.000	.000	.002	.004	.000	
	N	273	273	273	273	273	273

** Correlation is significant at the 0.01 level (2-tailed).

Table 12: Pearson Correlation Analysis Results

The SPSS output in Table 11 suggests that significant positive relationship exists in between all IVs and DVs tested except for CSE which was observed as not having significant positive relationship with PRS, CL, CS and CVE.

4.5 Multiple Regression Analysis

This technique is principally performed to validate hypotheses which consist of multiple independent variables. It is more practical than the Pearson correlation analysis discussed above which only investigates the direct 1:1 relationship between the IV and DV. The fact is that interactions do exist between the IVs and would form a significant effect towards DV. Along the way of the analysis, interest was sparked to understand how the Product Returns Encounter Experience (PRExp) - A dichotomous categorical variable (data from question no. 8) would affect the outcome of the correlation analysis. It is then added into Table 12.

Product Returns Condition	Factor that affects the feasibility of extending the partnership between Intel and tablet manufacturers to their product return services.	Variable Category
Standard	Product Returns Satisfaction (PRS)	Independent Variable (IV)
Standard	Customer Satisfaction (CS)	Independent Variable (IV)
Standard	Customer Loyalty (CL)	Dependent Variable (DV)
Extended	Customer Value (CVE)	Independent Variable (IV)
Extended	Customer Satisfaction (CSE)	Independent Variable (IV)
Extended	Customer Loyalty (CLE)	Dependent Variable (DV)
Extended	Product Return Encounter Experience (PRExp)	Dependent Variable (DV)

Table 13: List of Variable Identified

4.5.1 Model Summary

The output of regression analysis is arranged and shown in Table 13. $R^2 = 0.828$; taken as a set, the predictors PRS and CS account for 82.8% of the variance in CL. This value is very much higher as compared to the subsequent models developed on the extended product returns, whereby the $R^2 = 0.128$ and 0.129 with the latter slightly improved after PRExp was introduced into the model. This observed result also indicates that 87.2% and 87.3% of variance in CLE are affected by other factors outside of the extended product returns model.

Predictors, IV	DV	R	R Square	Adjusted R Square	Std. Error of the Estimate
PRS, CS	CL	0.910	0.828	0.826	0.278
PRS, CVE and CSE	CLE	0.358	0.128	0.118	0.447
PRS, CVE, CSE and PRExp	CLE	0.360	0.129	0.116	0.448

Table 14: Model Summary result

4.5.2 ANOVA Analysis

The ANOVA result in Table 14 below complements the findings published in the model summary above whereby all 3 models are statistically significant (all p-values are not greater than 0.05, at 5% significance level), with a linear relationship exists in between the measured predictors (IVs) and DV of the respective model. Therefore, the findings at this point show that all 3 overall regression models are significant with:

PRS and CSF were the significant predictors of CL, $F(2, 270) = 647.90$, $p < 0.001$, $R^2 = 0.828$. PRS, CVE and CSE were the significant predictors of CLE, $F(3, 269) = 13.17$, $p < 0.001$, $R^2 = 0.128$. PRS, CVE, CSE and PRExp were the significant predictors of CLE, $F(4, 268) = 9.97$, $p < 0.001$, $R^2 = 0.129$.

Predictors, IV	DV	Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
PRS, CS	CL	Regression	100.125	2	50.063	647.896	0.000
		Residual	20.863	270	0.077		
		Total	120.988	272	-		
PRS, CVE and CSE	CLE	Regression	7.898	3	2.633	13.166	0.000
		Residual	53.791	269	0.2		
		Total	61.689	272	-		
PRS, CVE, CSE and PRExp	CLE	Regression	7.988	4	1.997	9.966	0.000
		Residual	53.702	268	0.2		
		Total	61.689	272	-		

Table 15: ANOVA analysis result

4.5.3 Regression Coefficient

It is observed in the Table 15 below that $P > 0.05$ for CS and PRExp, hence the amount of unique variance each CS and PRExp accounts for is not statistically significant in its respective model. The rest of the predictors accounts for a significant amount of unique variance in CL or CLE of its respective model. Hence, the developed regression models are:

$$CL = 0.441 + 0.841PRS + 0.034CS$$

$$CLE = 1.604 + 0.154PRS + 0.222CSE + 0.133CVE$$

$$CLE = 1.666 + 0.154PRS + 0.224CSE + 0.134CVE - 0.041PRExp$$

Predictor, IV	DV	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Constant	CL	0.441	0.075	-	5.872	0.000
PRS		0.841	0.033	0.88	25.586	0.000
CS		0.034	0.027	0.043	1.239	0.216
Constant	CLE	1.604	0.327	-	4.902	0.000
PRS		0.154	0.04	0.226	3.89	0.000
CSE		0.222	0.057	0.222	3.898	0.000
CVE		0.133	0.059	0.132	2.275	0.024
Constant	CLE	1.666	0.34	-	4.893	0.000
PRS		0.154	0.04	0.226	3.88	0.000
CSE		0.224	0.057	0.224	3.924	0.000
CVE		0.134	0.059	0.133	2.286	0.023
PRExp		-0.041	0.062	-0.038	-0.667	0.505

Table 16: Coefficients result for all variables

PRExp which was introduced into the model later is observed as statistically insignificant; it shows a slight negative correlation to CLE. It could be understood that CLE is affected differently when PRExp was in combination with other variables. Similar explanation would apply to CS whereby although it shows a strong significant Pearson Correlation of 0.64 towards CL, result shows CS is statistically insignificant in the multiple regression analysis. This would be caused by the interaction between CS and PRS in the model.

4.6 Hypotheses Testing

H1_A: There is significant positive relationship between Product Returns Satisfaction (PRS) and Customer Satisfaction (CS). Both PRS and CS served as the IV in the developed research regression equation for standard product returns: $CL = 0.441 + 0.841PRS + 0.034CS$. Bivariate Pearson correlation analysis is conducted to test the relationship between these 2 variables and reveals that the positive relationship is

significant, with the yield result of 0.679 at $p < 0.01$ as shown in Table 11. Hence the H_{1A} is accepted.

H_{2A} : There is a significant positive relationship between Customer Satisfaction (CS) and Customer Loyalty (CL). Bivariate Pearson correlation analysis is conducted to test the direct relationship between these 2 variables and reveals that the positive relationship is significant, with the yield result of 0.640 at $p < 0.01$ as shown in Table 11. Therefore H_{2A} is supported.

H_{3A} : There is significant positive relationship between Product Returns Satisfaction (PRS) and Customer Loyalty (CL) with Customer Satisfaction (CS) as the mediating factor. Bivariate Pearson correlation analysis is conducted to test the direct relationship between PRS and CL and reveals that the positive relationship is significant, with the yield result of 0.909 at $p < 0.01$. The acceptance of H_{1A} and H_{2A} suggests that significant positive relationship exists between PRS-CS, & CS-CL, respectively.

Multiple regression analysis at Table 15 however indicates that $p = 0.216, > 0.05$ for CS whereby it suggests that CS does not account for a significant amount of unique variance in CL while only PRS itself is found statistically significant in the regression model: $CL = 0.441 + 0.841PRS + 0.034CS$. Moreover, the model summary result in Table 13 shows that the overall regression model is significant with PRS and CS being considered as one group of significant predictors of CL, $F(2, 270) = 647.90, p < 0.001, R^2 = 0.828$ in the ANOVA analysis. In order to test the mediating effect, another step is taken to separate the mediated IV (CS) in another model using SPSS and the coefficient results are shown in Table 16.

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.431	.119		12.026	.000
	Customer Satisfaction	.505	.037	.640	13.708	.000
2	(Constant)	.441	.075		5.872	.000
	Customer Satisfaction	.034	.027	.043	1.239	.216
	Product Returns Satisfaction	.841	.033	.880	25.586	.000

a. Dependent Variable: Customer Loyalty (Standard Product Returns)

Table 17: Coefficients result to confirm mediating effect of PRS.

When PRS exists in model 2, it shows a higher Beta value at 0.88 as compared to CS's 0.64 in model 1, at the same time CS changed into insignificant. This result suggests that PRS fully mediates the relationship between CS and CL. Hence it rejects the H_{3A} and modifies it to H_{3AM} as: There is significant positive relationship between Customer Satisfaction (CS) and Customer Loyalty (CL) with Product Returns Satisfaction (PRS) as the full mediating factor.

H_{4A} : Customer Value (CVE) is created by extending the Product Returns Services. CVE reflected the highest mean value of 4.084, and the lowest standard deviation

value of 0.472 among the rest of the measurements in Table 16. Hence the result suggests that most of the respondents perceive value in extended Product Returns Services.

Furthermore, regression coefficient result table shows $p = 0.024$, > 0.05 for CVE whereby it suggests that CVE did account for a significant amount of unique variance in CLE in the regression model. In addition, the overall regression model: $CLE = 1.604 + 0.154PRS + 0.222CSE + 0.133CVE$ is significant when all IVs (PRS, CSE and CVE) were considered as one group of significant predictors of CL, $F(3, 269) = 13.20$, $p < 0.001$, $R^2 = 0.128$ in the ANOVA analysis.

CVE also performed statistical significantly when PReP was introduced into the model in later stage as $CLE = 1.666 + 0.154PRS + 0.224CSE + 0.134CVE - 0.041PReP$, with $p = 0.024$, < 0.05 , when PRS, CVE, CSE and PReP were considered as one group of significant predictors of CLE, $F(4, 268) = 9.97$, $p < 0.001$, $R^2 = 0.129$ in the ANOVA analysis. Therefore, there were reasons to believe Extended Product Returns created Customer Value and the H_{4A} is supported.

It is however worth mentioning that the R^2 value is relatively low as 0.128 and 0.129 for both CLE models as compared to the CL model of 0.826, whereby 87.2% and 87.3% of variance in CLE are affected by other factors outside of the extended product returns model. This suggests that complications arise in the thought process of the respondents as they tend to consider other factors when the Extended Product Returns is being introduced.

H_{5A}: There is a significant positive relationship between CVE: Customer Value (Extended Product Returns) and CSE: Customer Satisfaction (Extended Product Returns). Bivariate Pearson correlation analysis between CVE and CSE reveals that both IVs have no significant relationship, with the yield result of -0.007 at $p > 0.05$. Somehow the relationship of CVE and CS was found marginally significant at $p = 0.004670$ (rounded to 0.05 by SPSS), < 0.05 , but this finding was irrelevant to the research because the interest is on the CSE in CLE model, not CS.

Hence the H_{5A} is rejected and H₀ is accepted as there is no significant positive relationship between CVE and CSE. It is however important to understand that all 3 predictors (PRS, CSE and CVE) show the p -value < 0.05 for the regression model: $CLE = 1.604 + 0.154PRS + 0.222CSE + 0.133CVE$. This result therefore suggests that, though CVE and CSE do not form any direct significant positive relationship in between, they are both, together with PRS, individually accounts for a significant amount of unique variance in CLE. Since the $R^2 = 0.128$ in the ANOVA analysis was relatively low, the result suggests that other factors outside of the model account for 87.2% of variance in CLE, whereby these factors would interact with each predictors (CVE, CSE and PRS) uniquely.

H_{6A}: There is a significant positive relationship between CVE: Customer Value (Extended Product Returns) and CLE: Customer Loyalty (Extended Product Returns). Bivariate Pearson correlation analysis shows a significant relationship between CVE and CLE with the yield result of 0.175 at $p < 0.01$. As discussed on H_{4A} earlier, CVE is statistically significant on every perspective observed in the multiple regression analysis; and therefore the H_{6A} is supported. Furthermore, regression coefficient

result in table shows that $p= 0.024, >0.05$ for CVE whereby it suggests that CVE accounts for a significant amount of unique variance in CLE. In addition, the overall regression model: $CLE= 1.604+ 0.154PRS+ 0.222CSE+ 0.133CVE$ was significant when all IVs (PRS, CSE and CVE) were considered as one group of significant predictors of CL, $F(2, 270) = 647.90, p < 0.001, R^2= 0.828$ in the ANOVA analysis.

CVE also performed statistical significantly when PRExp was introduced into the model in the later stage: $CLE= 1.666+ 0.154PRS+ 0.224CSE+ 0.134CVE - 0.041PRExp$, with $p= 0.024, <0.05$, when PRS, CVE, CSE and PRExp were considered as one group of significant predictors of CLE, $F(4, 268) = 9.97, p < 0.001, R^2= 0.129$ in the ANOVA analysis. Therefore, there are reasons to believe that Extended Product Returns created Customer Value and the H_{6A} is supported.

The ANOVA result compared on Table 14 shows that, though it is insignificant, PRExp provided some moderating effect on the extended product returns regression model whereby it reduced the yield, from 13.166 to 9.966. On the coefficient table however, PRExp slightly increased the β value (3 decimal points) of the individual predictors. The findings of the Hypothesis Tests are summarized in Table 18 and the reconstructed model is presented as Figure 8.

4.7 Purchase Intension

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Purchase Intension_Affected_by_Ex PR (Tablet Owner)	273	2.00	5.00	3.7875	.93871
Purchase Intension_Affected by Availability of Options	464	3.00	5.00	4.0819	.66846
Purchase Intension_Affected_by_Ex PR (Non-Tablet Owner)	191	2.00	5.00	3.8743	.91475
Valid N (listwise)	0				

Table 18: Factors affecting Purchase Intension

From Table 17, the intensity of the tablet market competition is reflected by the mean score of 3.79 of question no.7 which investigated if customer's buying decision would be affected by the availability of different tablet brands in the market. Besides, Question no.39&40 which respectively asked the tablet owner and non-tablet owner about the likelihood to be attracted by the extended product warranty policy to make the purchase shows the respective score of 4.08 and 3.87.

4.9 Reconstructed Model

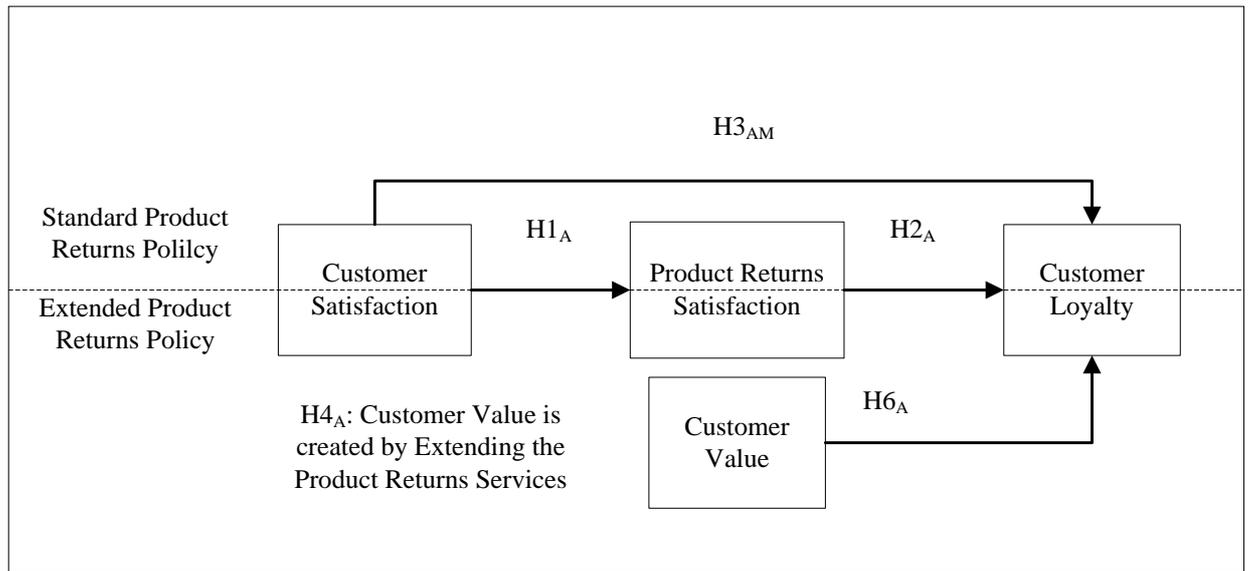


Figure 8: Reconstructed Model

5.0 DISCUSSIONS AND CONCLUSIONS

This chapter will include the follow through of the result discussion in relation to the reviewed literatures and the research objectives, followed by the implications of the study, research conclusion and recommendation. Lastly, the chapter will end with the topic on personal reflection and development.

5.1 Discussion

The aim of this research is to appraise the factors that affect tablet user's satisfaction and loyalty in order to study the feasibility of strategizing Intel's reputable Product returns services from B2B to B2C context and helps both Intel and its OEM partners to win in the tablet market. The objectives that follow through this aim are to analysis to what degree the extension of product returns services would create customer value, customer satisfaction and customer loyalty of tablet user on Intel-OEM co-branded tablet product. The critically reviewed literatures have revealed theories from different researches who consistently suggested the correlation exists in between customer value, customer satisfaction and customer loyalty. From the total of 464 validated responses received from Malaysia, 273 of them were tablet owners and the sample size target of 250 was met. The mode of the population age group was 18-30 which consisted of 53.7% of the population. The reliability tests of all the measurable variables (IV and DV) showed the result ranging from 0.713 to 0.929, it signifies that the designed questionnaire has produced a good consistency for the research.

5.1.1 The First Research Objective

The first research objective is to **critically evaluate the factors that affect customer satisfaction on tablet product, Product Returns services and customer loyalty**. The analysis results accepted H1_A and show that the direct significant positive relationship exists within CS-PRS relationship. As reviewed in section 2.1.6, it is empirical that perceived service value is the fundamental predictor of CS (McDougall and Levesque, 2000; Cronin et al., 2000; Anderson et al., 1994; Dodds et al., 1991; Zeithaml, 1988). The SERVQUAL service quality model developed by Parasuraman, Zeithaml and Berry (1988) which identified five main factors as RATER is found to be widely used to measure service quality in many literatures. This justified the reasoning of studying the PRS-CS relationship whereby Product Returns services is known as one of the most important components of after sales service, and it can be classified under the Reliability and Assurance components in the SERVQUAL model.

Analysis results also supported H2_A as there is significant positive relationship within CS-CL relationship. The rejection of H3_A followed by the formation of H3_{AM} suggests that there is significant positive relationship between Customer Satisfaction (CS) and Customer Loyalty (CL) with Product Returns Satisfaction (PRS) as the full mediating factor in the model: $CL = 0.441 + 0.841PRS + 0.034CS$. This is being understood as the overall Customer Satisfaction (CS) on tablet seems to produce higher levels of Product Returns Satisfaction (PRS), and this higher Product Returns Satisfaction translates into Customer Loyalty (CL) behavior.

One of the reasons of this result would be the low number of respondents who had Product Returns encounter experience, which is just observed as 25.6% of the tablet owner population and therefore the result would be affected by the other 74.4% tablet users who did not have any Product Returns encounter experience whereby their perceived value of PRS tends to follow the overall CS. Also there are chances of the emotions tying to the brand as argued by Price and Dawar (1995) in section 2.3.1 whereby consumer's perception towards warranty services may depends on the strength of a brand's reputation. Besides, the consumer who understands the limits of warranty liability would increase their expectations for a warranted product offered by a reputable brand. Hence, the 1st research objective is accomplished.

5.1.2 The Second Research Objective

The 2nd research objective is to **critically evaluate and understand customer's perception of product returns services**. The discussion starts with the comparison of the significances of PRS in both standard and extended Product Returns regression model. Apparently in both cases, the relationships between PRS-CS and PRS-CSE are observed to be significant ($p < 0.001$) with the standard coefficient (Beta) value of 0.88 and 0.226 respectively. This suggests that PRS significantly explains the variances of both CS and CSE uniquely in both models. However, PRS's effect is much smaller in extended Product Returns model as compared to the standard Product Returns model. This can be explained by the much lower R square value in the extended model which suggests that the model; although is significant, is affected by other unconsidered external factors as much as 87.2%. Therefore the 2nd research objective is considered partially accomplished in view of the low R square value and supported by the argument made by Price and Dawar (1995) discussed in section 5.1.1.

5.1.3 The Third Research Objective

Following to the third research objective which is to **analyze how to gain customer value by repositioning/ redesigning Product Returns services which will help Intel and the OEM partners to achieve differentiation focus in today's competitive market place**, the approach was to extend the standard Product Returns services to include benefits of manufacturer's standard warranty extension from 1 year to 2 years and the feature of guaranteed trade in value (not less than 30%) for the tablet purchased. The acceptance of H4_A and H6_A suggests that customer value can be created by this approach and leads to customer loyalty. In order to achieve differentiation focus, firms have to strive for something special to delight the customer. Barry (2005) stated that customer delight is based on fulfilling unexpected positive surprise-based occurrences and occurs from features that are not expected or that add unexpected utility. The idea of extending the standard Product Returns Policy by the manufacturer met the said criteria as it is most likely to be the first in Malaysia's market. However, it seems to be much complicated when the additional premium (to be added to the selling price) came into the picture. As what stated in section 2.1.7, consumers will eventually evaluate the value by weighing the benefits received versus price paid. Due to customer satisfaction is highly individual as suggested by different researchers (Giese & Cote, 2000; Sureshchander et al., 2002; Schiffman & Karun, 2004), the insignificance of the direct 1:1 relationship between CVE and CSE which rejected H5_A is believed to be caused by the individuals who were skeptical about this new Product Returns policy where they were told to fork out additional cost for it. With that, the 3rd research objective is considered partially accomplished.

5.1.4 The Fourth Research Objective

The last research objective is to **analyze how to drive customer's demand of the tablet powered by Intel chip in order to replicate the success of Intel Inside co-branding campaign in the PC market**. The acceptance of H4_A and H6_A strongly suggests that the customer value created by the extended Product Returns services helped to secure customer loyalty which its measurement was broken down into retention, advocacy and purchasing loyalty (Bob, 2011). The mean score of CLE is 3.432 which increased significantly from the mean score of CL (3.006) suggests that customer loyalty is positively affected by the extended Product Returns policy. In extension to what the hypotheses have tested, the said finding is also supported by the mean scores of 4.08 and 3.87 of question no.39&40 which respectively asked the tablet owner and non-tablet owner about the likelihood to be attracted by the extended product warranty policy to make the purchase. Intel is a component manufacturer and cannot reach out to the end customers effectively without working together with the OEM partners; hence the partnership with OEMs on the context of Product Returns needs to be flourished in order to stay competitive in the intensively competitive tablet market. The intensity is reflected by the mean score of 3.79 for question no.7 which indicates that customers are indeed overwhelmed by the varieties of choices the tablet market offers and this signifies the importance to apply the differentiation focus strategy. Hence, the fourth research objective is accomplished.

5.2 Implication of the Study

Theoretically, the result of this research evidently suggests that customer loyalty is the product of improving customer satisfaction and creating customer value, which aligns with findings from most of the literatures reviewed. Practically, it provides useful insights for firms to understand how the tablet users in Malaysia perceive the value of Product Returns services leading to loyalty behavior, and how they respond towards a brand new Product Returns idea. Also, the “pull effect” from the end customer which generates demand for tablet chips can be realized by having both the OEMs and Intel working together to bring the best out of the Product Returns services for the end customer. The inferential analysis on the other hand, significantly predicts that female student (age range of 18-30) in Malaysia tends to own a tablet for more than 2 years; this will help the business managers and policy makers to outline the overall marketing plan.

5.3 Conclusion

The outcome of the hypotheses testing demonstrates that 4 out of 6 hypotheses were supported whereby both the standard Product Returns model $CL = 0.441 + 0.841PRS + 0.034CS$ and extended Product Returns model: $CLE = 1.604 + 0.154PRS + 0.222CSE + 0.133CVE$ are statistically significant. Product Returns encounter experiences (PRExp) however did not produce much effect to the extended Product Returns model.

There β value of 0.841 signifies a very strong significant positive relationship exists between PRS and CL in the model; moreover PRS causes the unique affect in CL by fully mediating the relationship between CS and CL. Hence it is crucial for the OEM to continue maintaining its Product Returns services in order to keep the customer loyal. Having said that, the utilization of Product Returns services was rather low, only 25.6% from the sampled population of 273 tablet users had Product Returns encounter experience. Therefore from the perspective of securing customer loyalty, firms' investment in Product Returns service could be perceived as only made a little return of investment, which is often considered as a necessary cost-of-doing business (Blackburn et al., 2004).

The significance of all the key attributes in the extended Product Returns model and the model as overall provide an opportunity for firm to look at Product Returns differently. The resources allocated on Product Returns service today could worth more than just a “necessary cost-of-doing business” if it is strategically turned into an effective marketing tool. The result of this research strongly suggests that the analyzed Extended Product Returns solution improves customer loyalty significantly and able to help both Intel and OEMs to capture market share in the tablet segment, in which customer lifetime value (CLV) will be strategically exploited.

However the comparatively lower R square value in the extended Product Returns model signifies that there are other external factors outside the model which would affect the outcome significantly.

5.4 Recommendation

Malaysia is one of the most active Facebook user nations in Asia, besides, research showed that the 80's and 90's tend to be inspired and motivated to participate when comes to learning a new concept or information rather than being passively informed (Daina Middleton, 2013). Therefore, should the marketing promotions pertaining to the subject of tablet products are to be considered, the participation programs such as playing online games, gathering referrals using Facebook and other social media channels e.g., WeChat and LINE are strategically important. Moreover, the result of inferential analysis discussed in section 5.2 indicates that the female schooling teenagers in Malaysia have not bought a new tablet for 2 years. Future research should aims to understand the real reason behind this trend and customize a strategic marketing plan to attract these groups of people.

Component manufacturer- Intel, who has been practicing to subsidize the system integrators (OEM) for marketing purpose, should seriously consider investing in the B2C Product Returns context as soon as the costly contra revenue goes away in 2015. The traditional way of "feeding" B2B customer with incentives would not be as cost effective as "securing" the end customer's interest on the future products, which could be accomplished by honoring customer the right to trade-in their existing tablet and enjoy a handsome rebate on a brand new tablet in future. Nonetheless, Rahman and Chattopadhyay (2004) claimed that although warranty coverage period become increasing important to win customers, the estimation of associated warranty cost is complex yet important. Therefore in order to extent the current Product Returns model from B2B to a sustainable B2C model, the warranty cost structure has to be carefully designed. The proposed 5-10% premium payable by customer would serve as a financial buffer for manufacturers at the beginning stage. Eventually, the cost of the extended Product Returns will be significantly lower when market accepts the concept and produce a higher trade-in fulfillment rate, whereby manufacturers will be given a clearer visibility on the future demand of their products and gain efficiency at the supply chain.

As the suggested by Price and Dawar (1995) whereby consumer needs to be educated on the understanding of warranty terms in order to reduce the difference in customer's expectation between a reputable and lesser reputable firm, the cooperation of all types of OEM are needed to have their staffs (e.g., customer service agents) well trained to keep consumer properly informed on the product's warranty T&Cs and the consumer's right. The insignificance of CVE-CSE direct relationship as discussed in section 5.1.3 shows the importance of customer's understanding of the value the extended Product Returns services bring in exchange of the premium added on the tablet price.

For future research, the key interest is to investigate the factors that bother consumer on the extended Product Returns model which affect the satisfaction level e.g., the premium added on the selling price, whereby as suggested by the literatures, cost and the firm's reputation would be the factors. The sacrifice component (price) as stated by Lam et al. (2004) would correlate positively to the customer's perceive value, therefore the extended Product Returns solution which incurs additional cost to the customer is more likely to add value on higher end products whereby its purchaser has more affordability and less cost sensitive. Besides, customer might be skeptical

about the T&Cs of the deal such as the condition of the returned tablet is not at their advantage. Hence, the extended return policy needs to be carefully considered to avoid discrepancy between customer's expectation and the policy T&Cs and also to balance the cost/ benefit to both Intel and its OEM partners. In order to cover more tech savvy respondent in future research, the distribution of questionnaires needs to be focused on the retailers, shopping malls that sell tablet products. By increasing the sample size, chances of getting respondent who has Product Returns encounter experience will be higher. In addition, future researcher would also consider applying this concept on smartphone segment, as the ultramobiles market is booming.

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