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Determinants Influencing Purchasing Behavior of Korean Cosmetic Purchasing Intention: Case Study of Thai Female Perspective

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Abstract

This study seeks to explore the main factors influencing Thai female consumers purchasing behavior and identify the relationship between consumer behavior and sales objectives of Korean Cosmetic brands I. The data was collected in the form of an online questionnaire which was divided into 5 subsections. This was followed by 1) Demographic data 2) Thai females purchasing behavior of Korean cosmetics 3) Factors influencing the purchase of Korean cosmetics 4) Purchase intention and 5) Suggestions. Four hundred (N = 400) respondents from Thai females were selected for this study. For data analysis, statistical methods which rely mainly on descriptive statistics and multiple linear regression analysis were used. The multiple linear regression model shows the factors determining buying behavior of Thai females. The results show that Product Packaging, Product Quality, and Price weigh heavily on the purchasing intentions of the participants.

Keywords: Purchasing behavior, Purchasing intention, Korean cosmetics, Brand image

Introduction

The Korean cosmetic market has changed remarkably these last few years and has grown into a major competitive market in the world. (Yoon et al., 2020). South Korea is one of the fastest-growing markets in the beauty and personal care industry, reaching nearly a 6% growth rate in 2019 (Genovera, 2019). Korean Cosmetic Agency (2019) identifies the Korean cosmetic industry also became the 9th biggest beauty market in the world, which is quite noticeable for a country of only 57 million inhabitants. Females' dreams to become more beautiful physically and non-physically have driven the demand, a fact particularly true for facial skin (Karya et al., 2021). The creation of new Korean cosmetic brands has enabled the development of the cosmetic production base. Presently, many domestic companies do not produce cosmetics directly, but manufacture products through original equipment manufacturing (OEM) and original design manufacturing (ODM) (Yoon et al., 2020).

Karya et al. (2021) demonstrate that consumers of Korean cosmetics initially saw Korean films or dramas triggering some interest, in addition to online reviews and testimonials on various blogs and YouTube. Moreover, consumers buying a cosmetic product can also be influenced by the brand image of a product and the quality of the product. Recently, Korean cosmetic brands not only appeared in Thailand but also penetrated new markets in America and Europe. Nowadays, South Korean cosmetic products are sold in every corner of the world and are slowly becoming increasingly popular among female consumers (Bailleux & Menache, 2021). On top of that, these customers prefer to buy their cosmetics in a shop rather than online, which also influences their purchasing decisions (Jeong et al., 2017).

Korea is the leading supplier of cosmetics in Asia and is extremely popular in Southeast Asia. The greatest strengths of Korean cosmetics lie in the use of natural ingredients, the light and thick textures of the products which are adapted to the consumers' needs as well as the reasonable pricing of most products (Le et al., 2020). Some brands such as Innisfree, Nature Republic, Nu Skin, and Sephora use natural ingredients while some others such as The Face Shop, Missha, Oriflame, and Etude House use rather chemical ingredients (Genovera, 2019). However, the use of organic and natural ingredients in cosmetics impacts greatly consumers' purchase intentions. The Korean government fully supports the cosmetics industry, which is why the price of the cosmetics itself is affordable as the government gives financial support to carry out research and improve Korea's industry sales all over the world.

Nowadays, Korean brands are already present throughout the world and have a great influence in Thailand. Korean cosmetic brands are top ranked which directly affects the behavior of females to purchase more cosmetics. According to the results, it was found that brand and marketing strategies influence Thai females' decisions to purchase Korean cosmetics. However, the researcher found out that Thai female customers usually have a positive attitude toward Korean cosmetics because Korean brands are perceived as more reliable and popular than in Thailand (Boonmee, 2015).

Nowadays, Thai females are more interested in beauty than in the past. They feel the need to get as beautiful as South Korean females, which is why many cosmetics are imported from Korea. Korean cosmetics brands are very popular in Thailand and have now become the top-ranking supplier in the cosmetic market. Therefore, it has become essential to explore and identify the factors influencing buying behavior of Thai females and to identify the relationship between purchasing behavior and purchasing intention as it will help shed light on the expectations of female consumers in their use of Korean cosmetics. The results of this research should benefit cosmetic business operators and those interested in business operations that must be imported from abroad, as well as being used as a guideline to study consumer behavior.

Objective

1. To explore the factors influencing buying behavior of Thai females
2. To identify the relationship between purchasing behavior and purchasing intention

Literature Review

1. Brand Image

Bailleux & Menache (2021) presents three positive factors explaining the growth of Korean cosmetic in the world. First relates to the Korean beauty culture and the innovation ability of Korean brands, Secondly, the profiles and expectations of the consumers also play an important role. Finally, Korean brand image and marketing strategies are equally important. “Brand” and “image” are related but not identical concepts. “Image” in relation to “brand” is perceived by the target audience as “a generalized portrait” of the branded object. The image-generating qualities are planned actions of the branded object, demonstrating them. The combination of physical characteristics, as well as social and psychological implications, is a solid basis for the creation, of a number of the following brand image definitions. The brand image is formed spontaneously or created purposefully (Kalieva, 2015).

Based on these findings, the concept of brand image is as follows: brand image is the tangible and intangible attributes based on the association formed by the consumer's mind. The means and intensity depend on the user's personality, his attitude toward the brand, social interaction, and brand communication. In addition to that, the existing branding literature points out that products with a strong brand image can reduce consumers’ cognitive risk and increase consumers' appraisal of the target product or service (Aghekyan et al., 2012).

2. Korean cosmetics brand

In today’s world, some Korean cosmetics brands are now regarded as the best and most efficient ones. To better grasp the staggering rise of Korean brands, it is necessary to take a look at the historical movements of Korea and analyze how much has been done so far (Korean Cosmetic Agency (2019). Korean cosmetics find their roots in the Ancient Choson dynasty.

Back then, they utilized ornaments and colored them to represent their social status and religious-based symbols. According to Hee-sook (2004), the people within the era of the ancient Choson dynasty glorified fair skin. Individuals in Manchu used to apply lard to their bodies to prevent them from having soft skin and frostbiting. Prevention of frostbite by applying lard during the winter constitutes the origin of Korean cosmetics. Hautala (2020) identifies that Korean beauty is linked to the important cosmetic habits of Korean people, such as the 10-step skincare routine for example. This consists of applying ten products in ten steps: oil cleanser, foam cleanser, toner, essence, emulsion, serum, sheet mask, eye cream, moisturizer, and sunscreen.

3. Thai Female Purchasing Behavior

There are several factors found in the literature that justify the buying behavior of consumers. The main factors influencing the buying behavior of consumers are discussed below.

3.1 Brand

A brand can affect the consumer's awareness which are name, symbol, design, advertising, and sales (Korean Cosmetic Agency, 2019; Shahid, Hussain & Zafar, 2017). Moreover, branding strategy is a process that helps a company or an organization to achieve a competitive image. Branding strategy refers to what the company stands for, the promise made to the customer, and the personality benefits that can be acquired by the purchase of a specific product. While a brand includes a logo, color palette, and slogan these are elements that transmit your brand. Seems like a brand lives in the everyday interaction that the company has with its market. Elements such as logos, color palettes, and slogans are very important components of a brand. Brands live and interact every day with consumers (Shahid, Hussain & Zafar, 2017).

A brand is a powerful tool to attract more consumers to buy particular products. Some may also consider brand equity which can add value to the products. With a well-known brand name, consumers appear to be more likely to purchase products at much higher prices. Having a strong and remarkable brand image could help establish a strong identity in a definite market. Genovera (2019) identifies brand equity as an important part of consumers purchasing decisions. In addition, it also contains several elements that can generate value: (i) brand association, (ii) brand awareness, (iii) perceived quality, and (iv) brand loyalty. Successful branding makes consumers aware of the presence of the brand and in turn, significantly increases the chance of buying the company's products and services.

3.2 Promotion

Promotion contributes to advertising the product quality which in turn impacts purchase intention. Promotion is able to influence product evaluation and product selection processes. Marketing actions, such as incentives to purchase and communication, will affect consumer effectiveness, which in turn will affect product evaluation and product selection decisions. In-store surprise coupons lead to increased effective circumstances, which results in better store evaluations and more unplanned purchases. In addition, the lottery can also generate strong and positive affective reactions in the minds of consumers, which may lead to the use of simple decision rules in evaluating product quality (Yoon et al., 2020; Le et al., 2020; Shalehah et al., 2019).

3.3 Product Packaging

Product packaging has an effect on purchase intention. Packaging is not only a means to ensure safe and efficient logistics delivery to customers with minimum costs but also one of the most important marketing tools for communicating brand messages to consumers. As a result, product packaging is a means for producers to communicate subliminally with their consumers for product evaluation, brand differentiation and identity, and consumer brand influence. Because product packaging influences most buyers when important purchasing decisions occur.

Research has already been conducted on the effects of packaging on purchase intentions. Consumers focused more on the visual packaging features and suggested that visual packaging attributes include colors, graphics and image forms, typography, and illustrations. Previous studies have further suggested that visual package elements play a large role in influencing consumer purchasing decisions of products (Karya et al., 2021; Le et al., 2020; Hautala, 2020).

3.4 Product Quality

Product quality has a substantial impact on purchase intention. The perception of product quality is very important in most purchase transactions, and the effect of perceived quality on brand evaluation has been well documented. Previous research suggests that brand preference increases with the increasing perception of product quality. Thus, product quality is potentially an important factor that influences perceptions of brand preference. Product quality influences heavily the way customers view product brand equity and overall excellence compared to available alternatives ((Yoon et al., 2020; Le et al., 2020; Shalehah et al., 2019)

3.5 Price

Price perception greatly affects a consumer's decision to purchase a product. The perception of price gives a lot of information about a product and provides incentives for the consumers. Hence, price is an important factor in the purchasing decision, especially for products that are frequently purchased, and in turn, influences the choices of which store, product, and brand to patronize. Consumers are very rational when it comes to judging what benefits they wish to get from buying products or services (Karya et al., 2021; Le et al., 2020). Moreover, Hsu & Pham (2015) identifies that consumer always obtains price information by receiving and converting the information into their memory as magnitude representations.

3.6 Store Environment

The store environment is a critical aspect of marketing and refers to the physical environment of a store, such as the music, lighting, store layout, and arrangement of merchandise. Aspects of the store environment have been found to have a significant influence

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on a store's financial performance. Likewise, the store environment can elicit a wide range of behaviors from people within the store, where certain elements can influence customers to stay in the store longer, increasing the probability that they may buy an item. Conversely, store elements can also have a negative effect on consumer behavior by influencing them to leave the premises prematurely (Jeong et al., 2017).

4. Purchase intention and loyalty

Purchase intention has been derived from the term intention and is mostly used to know the intention of consumers when they make a purchase decision. The purchasing intention of a consumer can be defined as "the consumer's self-instruction to purchase the product" (Karya et al., 2021). The intention is basically the intellectual depiction of a person's willingness to accomplish a given behavior. Additionally, if customers are keen and content to purchase a certain product, it means they have purchase intention (Shalehah et al., 2019).

If consumers are loyal to a brand, then the price will not impact their buying behavior in the sense that they are ready to pay the price for their favorite brand. Furthermore, consumers have confidence that the brand they like provides more benefits to them than the cost incurred. The study shows that retailers enhance the intention of consumers for purchasing organic care products by using efficient marketing strategies like emphasizing natural beauty, product safety, and reasonable prices (Hameed & Kanwal, 2018). It is difficult to comprehend the implication of marketing strategies without a prior understanding of consumer behavior. This study shows that the consumer displays different behaviors toward organic personal care products in different value systems. These values affect the consumer's attitude toward buying organic products and he/she will look for those products which satisfy their values (Aghekyan et al., 2012).

In conclusion, it can be argued that purchase intention depends on the consumer's ability to pay for a particular product. When consumers have enough money, they don't regard the price as an obstacle. When consumers have more purchase intention, they will be more loyal to a brand and will be more likely to consider a particular brand while making purchase decisions. The purchasing behavior of consumers is subsequently affected by peer pressure. Value Consciousness refers to buying a less expensive product by sacrificing a little quality. This behavior of the consumer affects the purchase of counterfeits (Hameed & Kanwal, 2018).

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5. Conceptual Framework and Hypotheses

The exploring female purchasing behavior attributes of purchase intention were developed and presented in Figure 1.

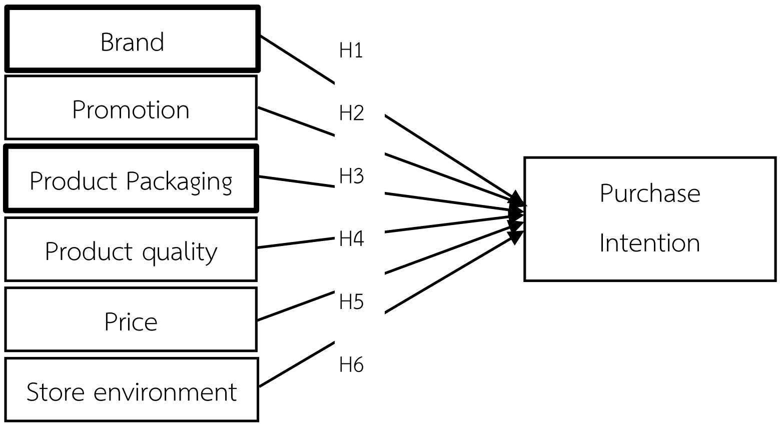

Figure 1 Conceptual framework

H1: Brand has a positive effect on purchasing intention.
H2: Promotion has a positive effect on purchasing intention.
H3: Product Packaging has a positive effect on purchasing intention.
H4: Product quality has a positive effect on purchasing intention.
H5: Price has a positive effect on purchasing intention.
H6: Store environment has a positive effect on purchasing intention.

Methodology

Current research is descriptive in nature and explains or describes some phenomenon in any specific situation. A descriptive quantitative method was used to determine the different aspects of female purchasing behavior attributes. The structured questionnaire was used for the quantitative research method. This is the preferred method of the researchers to find out the different aspects of respondents' behavior. Our research uses quantitative methods. By paying attention to the data that can be enumerated or measured into numbers, and using statistical methods to analyze data the results of the data analysis, we may deduct what is more, less, or less related or not related to anything and differentiate things.

For this study, female perspectives regarding to Korean cosmetics were collected in order to study the impact of determinants to purchase intention. The sample was randomly selected in Bangkok and metropolitan because the population in the area has high possibility to purchase Korean cosmetic products rather than in other regions. The study focuses on females because they are usually more interested in buying cosmetic products than males.

With the size of the population is undefinable, the sample size is calculated at 95% confidence level and 5% margin of error equal to 385 samples. The appropriate sample should be at least 385 samples. The study collected 400 samples.

The structured questionnaire technique was used to collect the data. The questionnaire was beginning with a confirmation statement to ensure that they are willing to respond the questions. The instrument consists of 4 parts: Demographic information, General cosmetics purchasing behavior, Determinants influencing Korean cosmetic purchasing behavior, and Suggestions. Therefore, respondents were requested to evaluate their opinion regarding Korean cosmetic purchasing behavior and intention by using a 5-point Likert scale. The pilot test and reliability were investigated; the values of their reliability were between 0.665 – 0.881.

Multiple linear regression analysis was implemented to investigate the impact between determinants and purchasing behavior. The assumptions of regression analysis were tested: linearity, homoscedasticity, and normality. The relationship of all determinants and purchasing intention showed a significant linear relationship; the residual plot showed a constant pattern in all determinants; the normal Q-Q plot showed a straight-line form. According to the result of the assumption, multiple linear regression analysis is the appropriate technique to discover the impact between independent variables and dependent variables.

Results

The socio-demographic variables are presented in Table 1. 54.25% of the participants were aged between 20 and 30 years, and 70.75% of the respondents were students. The education level of 95% of respondents was undergraduate while approximately 5% of the respondents were postgraduate. 58% of respondents reported that they had a personal monthly income of fewer than 10,000 baht and 41.75% of respondents purchased cosmetics more than five times a year. 59.50% of the respondents purchasing cosmetics did not spend more than one thousand baht per time.

Table 1 Socio-demographic characteristics of respondents (N = 400)

socio-demographic variables	Breakdown	Number of respondents	Percentage
Age	Less than 20	137	34.25
	20 – 30 years	217	54.25
	31 – 40 years	33	8.25
	41 – 50 years	12	3.0
	51 – 60 years	1	0.25

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socio-demographic variables	Breakdown	Number of respondents	Percentage
Occupation	Student	283	70.75
	Civil servant	12	3.0
	Business owner	27	6.75
	State enterprise	8	2.0
	Employee	43	10.75
	Other	27	6.75
Education	Bachelor degree/ Undergraduate degree	380	95.0
	Postgraduate degree	20	5.0
Monthly income	Less than 10,000 baht	232	58.0
	10,000 – 20,000 baht	107	26.75
	20,001 – 30,000 baht	33	8.25
	More than 30,000 baht	28	7.0
Frequency to purchase per month	1 time	21	5.25
	2 – 3 times	137	34.25
	4 – 5 times	75	18.75
	More than 5 times	167	41.75
Amount per time	Less than 1,000 baht	238	59.50
	1,000 – 2,000 baht	121	30.25
	2,001 – 3,000 baht	28	7.0
	More than 3,000 baht	13	3.25

The factor influencing purchasing intention in Korean cosmetics of females was analyzed and presented in table 2. The unstandardized estimated multiple regression weights and p-values for all determinants toward purchase intention were given. Four determinants affect significantly on purchasing intention: Brand (β = 0.113, p-value = 0.004), Product Packaging (β = 0.115, p-value = 0.001), Product Quality (β = 0.450, p-value = 0.000), and Price (β = 0.251, p-value = 0.000). They were significant indicators of purchasing intention. Meanwhile, Promotion (β = 0.074, p = 0.098) and Store Environment (β = 0.050, p = 0.253) do not significantly impact on purchasing intention.

Table 2 The result of multiple linear regression about the factor influencing buying behavior female purchasing intention

Impact	Unstandardized	Coefficients Std. Error	Standardized Coefficients Beta	P-value
Brand → Purchasing Intention	.113	.039	.114	.004*
Promotion → Purchasing Intention	.046	.044	.044	.298
Product Packaging → Purchasing Intention	.115	.033	.142	.001*
Product Quality → Purchasing Intention	.450	.043	.429	.000*
Price → Purchasing Intention	.251	.043	.246	.000*
Store Environment → Purchasing Intention	.006	.036	.007	.864
Intercept	-0.198	.222		

* Significant level at 0.05

The multiple linear equations were constructed by using the stepwise method whereby the non-significant variables which were the variables that had p-value above 0.05 were discarded. Then the regression analysis was re-implemented in order to obtain the coefficient of the equation for predicting as shown in table 3.

Table 3 The result of multiple linear regression for constructing a linear equation

Impact	Unstandardized	Coefficients Std. Error	Standardized Coefficients Beta	P-value
Brand → Purchasing Intention	.124	.038	.125	.001*
Product Packaging → Purchasing Intention	.120	.032	.148	.000*
Product Quality → Purchasing Intention	.465	.041	.443	.000*
Price → Purchasing Intention	.253	.042	.247	.000*
Intercept	-0.121	.209		

* Significant level at 0.05

Among those four factors, product quality is identified as the most influential one and followed by price, package, and brand as shown in the order of standardized coefficients magnitude as 0.443, 0.247, 0.148, and 0.125, respectively. In addition, the new equation was constructed:

$$Y = -.121 + .465*X1 + .253*X2 + .124*X3 + .120*X4$$

Where:

Y = Purchasing Intention

X1 = Product Quality

X2 = Price

X3 = Product Package

X4 = Brand

The equation implies:

1. There are four significant variables: product quality, price, product package, and brand have a positive effect on purchase intention. When there is an increment level of perception upon these four variables; the purchase intention level is also increased.
2. When each one-unit increases in product quality, the purchasing intention level also increased by 0.465 in purchasing Intention.
3. When each one-unit increases in price, the level of purchasing intention is also increased by 0.253.
4. When each one-unit increases in product packaging, the level of purchasing intention are also increased by 0.120.
5. When each one-unit increased in brand, the level of purchasing intention is also increased by 0.124.

Discussions

This paper seeks to explore the factor influencing the intention to purchase behavior of Thai females and identify the relationship between 6 determinants and purchasing intention in Korean cosmetic products. In conclusion, it can be argued that brand, product packaging, product quality, and price have a significant positive impact on purchasing intention. The results indicate that female consumers become purchasers when a good brand is created which is consonant with the previous research by Genovera (2019).

There is a significant positive influence between product packaging with female purchasing intention of Korean cosmetics that is consonant with the previous research of Karya et al. (2021). Consumers also focus on visual packaging features such as colors, graphics, image forms, typography, and illustrations. This finding is consonant with the result of Le et al. (2020) and Hautala (2020) revealed that a positive relationship between product packaging and purchasing intention as visual package elements play an important role in influencing consumer purchasing decisions on products.

Moreover, it has been shown that product quality significantly influences purchasing intention in terms of Korean cosmetics brand image. Shalehah et al. (2019) commented that product quality has the potential to be an important factor that influences perceptions of brand preference. In the cosmetics industry, consumers tend to try the products and experience them first. Moreover, Yoon et al. (2020) and Le et al. (2020) mention that product quality impacts the way in which customers view product brand equity and overall excellence compared to available alternatives. If they can feel good quality, they will automatically be loyal to that brand.

There is a significant positive influence between price with female purchasing intention of Korean cosmetic brand image that is consonant with the previous research of Le et al. (2020). In many fields, price is the most important factor for purchasing intention, especially in the cosmetics product industry. Female consumers are willing to pay more for their cosmetics and their looks as long as it is worth the price. Price perception greatly affects a consumer's decision to purchase a product (Karya et al., 2021; Hsu & Pham, 2015).

Conclusion and suggestions

This research highlights the main tendencies with regard to the factors influencing buying behavior of females purchasing intention using a case study with a particular focus on Korean cosmetics. Based on the findings, brand, product packaging, product quality, and price have a significant influence on purchase intention. All of these factors play important to make female consumers purchase Korean cosmetics. Korean cosmetics firms should improve their brand and explore their product packaging and product quality to make a better brand image. Besides, Korean cosmetic firms need to build a strong brand name and provide attractive prices.

Despite our efforts, there are limitations in results and there is room for further research. research. First, further research could explore and measure the factors that the current scale does not measure through an in-depth study of existing research. Moreover, this paper looked into the relationship between the marketing factors of cosmetic brand shops and the overall brand experience. Finally, further research should examine how these factors are related to the current implementation of firms’ marketing strategies.

New knowledge and the effects on society and communities

1. To understand the factors influencing buying behavior that affects female consumers' purchase intention of Korean cosmetic brand image.
2. To apply the study of factors influencing buying behavior that affects female consumers in other industries such as costume, perfume, and accessories.
3. To educate the concept of factors influencing buying behavior affecting male consumers.

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Marketing Mix Affecting Consumers in Purchasing at Refill Shops in Mueang Chiang Mai District

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Abstract

Refill shop refers to a shop where customers bring their own containers to fill and purchase products with a purpose of preserving the environment by reducing waste. The purpose of this research was to study the marketing mix that affects consumers in shopping at refill shops in Mueang Chiang Mai District. This research is quantitative research. A questionnaire was used to collect data. The samples included 158 customers who had shopped at any refill shop located in Mueang Chiang Mai District. The data collection took place in the 5 selected refill shops in Chiang Mai. The researchers applied descriptive statistics. The study revealed that most respondents were female, single, age range 20-30 years old, graduated with bachelor's degree, worked as company employees, average monthly income of 10,000 - 20,000 baht, shopped at a refill shop 1-2 times per month. Regarding the marketing mix factors, the respondents ranked all marketing mix factors at high to the highest levels. The ranked factors included product (4.21), price (3.98), place (3.94), and promotion (3.53), respectively.

Keywords: Marketing mix, Mueang Chiang Mai District, Refill shop

Introduction

The growing of plastic waste has been a crucial problem in Thailand. The Ministry of Natural Resources and Environment presented a draft of plastic waste management plan to initiate cooperation and public relations among related organizations. The Ministry has proposed a comprehensive waste management approach including "reduce, reuse, and recycle" practices (Pollution Control Department, Ministry of Natural Resources and Environment, 2018). In 2020, Chiang Mai possessed the second highest amount of waste in the country, and most of it was non-biodegradable. Unfortunately, waste sorting plants located in Chiang Mai were still insufficient to cope with the rising waste volume in the upcoming future (Naewna, 2020). Plastic waste is a type of waste that is particularly difficult to decompose. If not being disposed of properly, plastic waste will lead to toxic particles in the atmosphere. In sum, plastic particles would affect people's health in the long run (Prince of Songkla University, 2018). Moreover, since 2020, the outbreak of coronavirus disease 2019 has stimulated more people to order food online, resulting in a 15% increase in plastic waste from food deliveries, or 6,300 tons per day (Na Ranong, 2020).

Due to such issue, business sectors paid significantly more attention to environmental protection. Many of them run their businesses while applying zero-waste life concept into practice. The zero-waste activities were, for instance, using cloth bags instead of plastic bag; using packaging made from natural materials; promoting packaging that can be composted naturally within 1-2 years, to name a few. Besides those common practices, some businesses came up with the idea of a shop where customers must bring their own containers or packaging to refill the products themselves. This creative business idea is called a refill shop business. This kind of shops usually sell products for household consumption such as rice, as well as consumer products such as shampoo, soap, and dishwashing liquid. An advantage of buying from a refill store was that customers could make a purchase in the amount they want without having to pay for more than necessary (Kanchanakit, 2018).

Refill shop business is popular in European countries. The first shop that brought this type of business to open in Thailand was Refill Station. The shop operators saw that there were several ways to reduce waste. They eventually chose a refill model to start with because it was the most viable concept. Customers can bring their own containers to refill the products themselves. In the beginning, this shop was only known to a small group of people who were interested. Later, the shop owners began to hold talks and meet up events to provide opportunities for people who are interested in preserving the environment to meet and exchange their thoughts and experiences. They also discussed ideas of small details to run refill shop, such as how to prepare containers to serving the customers and how to design and run the businesses. Since then, other entrepreneurs began to gradually open up this type of business (TCDC, 2019). The goal of refill shop business was to provide products and services to meet demand of customers interested in environmental protection. At present, there is an increasing number of refill shops in Bangkok and other provinces in Thailand. In Chiang Mai, there has been a growing trend of entrepreneurs starting this type of business. The shops in Chiang Mai are small and aim for environmental conscious customers (Methanupap, 2019).

Hence, the researcher was interested in studying the marketing mix that affects consumers in shopping at refill stores in Mueang Chiang Mai District. The results of the study would benefit entrepreneurs in creating a marketing strategy for their business in the form of a refill shop to meet consumer needs and achieve environmental goals.

Objective

To study marketing mix affecting consumers in purchasing at refill shops in Mueang Chiang Mai District.

Literature Reviews

Marketing Mix (4Ps)

This research applied Marketing Mix Concept or 4Ps to answer the research objective. The marketing mix refers to the marketing tools a business uses to achieve its marketing objectives. Marketing Mix consists of the following components: 1) Product which refers to objects that is offered for sale to meet the needs of customers. Products could either be tangible or intangible. Product features consist of benefits, quality, shape, packaging, and brand. 2) Price refers to value of the product in monetary terms. In general, consumers tend to compare between the value and the price of the product. If the value is higher, the price will influence the consumer's purchasing decision. 3) Place or distribution channel means a channel to move goods and services from the organization to the customer. It also means a channel that will allow customers to access sales. 4) Promotion is the communication between buyers and sellers to exchange information about products and customers' needs. Its purpose is to create a positive attitude and encourage purchase. Some of the popular promotion tools used are advertising, personal sales, and public relations (Sereerat, 2017).

Waste Management Theory

Waste Management Theory is based on the consideration that waste management is to prevent waste causing harm to human health and the environment. In addition, when mention about waste management, the practice of resource conservation comes along. One way to minimize waste was to optimize resources usage and ensures that resources are effectively circulated within the ecosystems (Pongrácz, Phillips & Keiski, 2004).

Refill Business

The Pollution Control Department of Thailand has prepared an environmental quality management plan by 1) Promoting the reduction of solid waste from the source 2) Refraining or reducing the use of Styrofoam boxes, plastic bags, and hard-to-decompose materials and 3) Develop bioplastics including other materials that are environmentally friendly to be able to be recycled as much as possible and 4) Set waste management goals for the entire production process with 3R goals (Reduce, Reuse, Recycle) (Pollution Control Department, Ministry of Natural Resources and Environment, 2018). From this idea, there became a group of people who are interested in protecting the environment along with doing business. One of them is the refill business to reduce the amount of packaging waste in the form of consumer goods store management. The main concept was that customers must bring their own containers to refill with the products at the shop where customers can limit the quantity they would like to buy. The refill shop staff will charge according to the weight of the product in the container (Bangkok bank SME, 2020: online). It was notable that most of the refill shops sell products made from natural extracts that are safe from chemicals (Methanupap, 2019).

Methodology

1. Research framework

1.1 Content

This study is a quantitative study. It focuses on the marketing mix that affects consumers in their purchases at refill stores in Mueang Chiang Mai District. The marketing mix in this study include product, price, place or distribution channel, and promotion factors.

1.2 Population and sample

The population in this study included people who had shopped at any of the refill shop in Mueang Chiang Mai District from November 2020 to November 2021. It was found that there were 5 refill shops in Chiang Mai. The authors then interviewed each of the 5 entrepreneurs. It was found that there were approximately 250 customers bought products from each store per month. The researcher applied Taro Yamane formula to identify the proper size of sample group at 95% confidence level using 5% randomization error. From the formula, the result showed that 158 samples were suitable for this study (Silpjaru, 2007). To collect data, the researcher used a screening question by asking “Have you bought anything at a refill shop during November 2020 to November 2021?” If answered “No,” the researcher would end the questionnaire and not counted as a sample. However, if answered “Yes,” the researcher would continue to collect data.

2. Research methodology

2.1 Research tool

The research instrument used in the study was a questionnaire which was divided into 4 parts as follows:

Part 1 General information about the respondents. This part is a multiple choice. The questions consist of gender, age, marital status, highest level of education, occupation, and average monthly income.

Part 2 Shopping behavior at the refill shop. This part is a multiple-choice question. The questions consist of frequency of purchases at the refill shop, reason for the purchase, reason for buying from refill shop, and satisfaction in shopping from the refill shop.

Part 3 The marketing mix factors that affects consumers in their purchases at refill shops in Mueang Chiang Mai District. This part applied rating scale questions.

Part 4 Information, opinions, and suggestions for refill shops in Mueang Chiang Mai District. This part is an open-ended question.

2.2 Questionnaire development

The researcher developed questionnaire in 4 steps as follows:

Step 1: Study and research related documents and research

Step 2: Take the questionnaire to the 3 experts to check for content validity and to find the Index of Item Objective Congruence (IOC). Based on the criteria for determining IOC, to accept the content validity, the index must be greater than 0.5 (Rovinelli & Hambleton, 1996). From the analysis IOC in this study, it was found that all IOC values of the entire questionnaire were greater than 0.5 and the overall compliance index was 0.97. This indicated the consistency between the questions and the objectives of the questionnaire, and all questions were eligible for use.

Step 3: The researcher measured confidence or internal concordance with Cronbach's Alpha Coefficient, using the expert-recommended questionnaire tested on 30 informants by the selection criteria questions with an α value of 0.70 or higher were considered confident (Tirakanant, 2012). The analysis obtained Cronbach's alpha coefficient of product factor 0.73, price factor, 0.86, place or distribution channel factor 0.76, promotion factor 0.83, and overall, 0.90. Therefore, all questions are considered confident and can be used.

Step 4: Create an online questionnaire and collect data.

2.3 Data analysis

Data collected from the questionnaire were analyzed by using descriptive statistics consisting of frequency, percentage and mean. In terms of marketing mix that affects consumers in purchasing at refill stores in Mueang Chiang Mai District, the criteria were divided into 5 levels according to the Rating Scales Method. The scores were interpreted for each level as follows: 4.21-5.00 means factors having the greatest effect; 3.41-4.20 means factors having a high level of effect; 2.61-3.40 means factors having moderate effects; 1.81-2.60 means to factors that affect at a low level and 1.00-1.80 mean factors that affect at a lowest level. In the Problem Solving and Suggestions section, synonymous answers were grouped together, and the frequency of responses was indicated.

Results

From the results of the study, it was found that most of the respondents were female (72.15%), aged 20-30 years (62.03%), single (62.03%), bachelor's degree (75.95%), working as employees of private companies (36.08%), and average monthly income between 10,000-20,000 baht (53.16%). In terms of shopping behavior at the refill shop, it was found that the majority of the respondents shopped at the refill shop 1-2 times a month (61.39%), most of them bought shower gel (79.11%), and they bought the product to use in daily life (82.28%). They shopped at the refill stores because they wanted to be part of contributing to the environment (85.44%). They often decided where to shop by themselves (72.15%) and searched for the shop information via internet (72.15%). Most of them were satisfied with shopping at the refill shops (72.15 percent).

Regarding the marketing mix affecting consumers to purchase at refill shops, the respondents ranked all marketing mix factors at the highest and high levels. The ranked factors included product (mean 4.21), price (mean 3.98), place or distribution channel (mean 3.94), and promotion (mean 3.53), respectively. The results are shown in table 1.

Table 1 Mean and interpretation of marketing mix affecting consumers in purchasing at refill shops in Mueang Chiang Mai District

Order	Marketing Mix	Mean	Interpretation
1	Product	4.21	Highest
2	Price	3.98	High
3	Place or distribution channel	3.94	High
4	Promotion	3.53	High

The top five sub-factors at the highest level included: the price was calculated based on the quantity purchased (Mean 4.53), the customers could limit the amount of product to be purchased (Mean 4.49); the unit price was clearly labeled (Mean 4.45); the products were made from natural ingredients (4.44); and the shop’s product containers were clean and hygienic (Mean 4.42), respectively. All sub-factor results are shown in table 2.

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Table 2 Mean and interpretation of sub-factors of marketing mix affecting the use of refill shops in Mueang Chiang Mai District

Order	Sub-factors of Marketing Mix	Marketing Mix	Mean	Interpretation
1	The price was calculated based on the quantity purchased.	Price	4.53	Highest
2	Customers could determine the amount of product to be purchased.	Product	4.49	Highest
3	The unit price was clearly labeled.	Price	4.45	Highest
4	The products were made from natural ingredients.	Product	4.44	Highest
5	The shop's product containers were clean and hygienic.	Product	4.42	Highest
6	The products were of high quality.	Product	4.41	Highest
7	Convenience of adding products to the packaging	Product	4.41	Highest
8	The containers were clean.	Product	4.34	Highest
9	The prices of the product were appropriate.	Price	4.27	Highest
10	The process of calculating the weight of the product was easy to understand.	Place/Channel	4.25	Highest
11	The manufacturing and expiration dates as well as ingredients were clearly shown on the product label.	Product	4.22	Highest
12	The products in the shop were well organized.	Place/Distribution channel	4.18	High
13	The sale persons were willing to provide information about the products.	Promotion	4.18	High
14	There was a wide selection of products.	Product	4.00	High

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Order	Sub-factors of Marketing Mix	Marketing Mix	Mean	Interpretation
15	The shop provided “refill concept” such as promoting the reduction of plastic waste from packaging.	Promotion	3.99	High
16	Bringing packaging to fill products helps customers to save costs.	Price	3.78	High
17	The containers were reusable.	Product	3.73	High
18	There are advertisements of the shop and its refill concept in various media.	Promotion	3.68	High
19	The shop used recycled materials.	Product	3.60	High
20	There were “environmentally friendly” or “green product” symbols on the products or in the shop.	Place/Distribution channel	3.58	High
21	The shop provided promotions such as giving discounts or price reduction.	Promotion	2.85	Moderate

The informants provided opinions and suggestions to the refill shops in Mueang Chiang Mai District, which could be summarized as follows: 1) the shops should advertise itself to the wider public since not many people know about refill shop and its concept 2) the shops should provide wider range of products 3) as the products in the shops were priced higher than general products and causing people to hesitated to buy, therefore, the shops should insist on the concept of refill shops and explain about the benefits of such concept which made the product worth the price 4) the unit price of some items that were not clearly labeled could confuse the customers, and 5) the shop should provide accurate and appropriate weighing and measuring tools to develop trust from the customers.

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Discussions

From the analysis of the study results, the important findings were discussed as follows. Regarding the general information of the sample group, it was found that the majority of respondents who used to buy products at a refill shop in Mueang Chiang Mai District were female, aged 20-30 years, single status, bachelor's degree, worked at private company, earned average monthly income of 10,000 – 20,000 baht, which were consistent with the results of a study by Infang (2014) whom studied the behavior of working-age consumers in Mueang Chiang Mai District towards purchasing of environmentally friendly products in the household cleaning products group. Infang (2014) found that the respondents in her study held a bachelor's degree and worked in companies. In addition, the result also aligned the results of a study by Rammasoot (2015) who studied consumer behavior in Mueang Chiang Mai District in purchasing environmentally friendly packaging and found that the respondents were under 30 years of age, single, had a bachelor's degree, earned an average monthly income of 10,000 – 20,000 baht. Furthermore, the results also correlated with the results of the study Poomwitchuvej (2016) who studied about factors affecting the decision to use natural health products in Wiang Sub-District Municipality, Mueang District, Chiang Rai Province. He found that most of the respondents were female, single, had a bachelor's degree, earned monthly income not more than 15,000 baht. It could be observed that the group of customers of shops that focusing on environmental protection and natural products tended to possess similar demographic characteristics.

In terms of shopping behavior at the refill shop, the results of this study indicated that the most popular item that the respondents purchased at the refill shop was shower gel. This finding was consistent with the study on key success factors for refills in beauty industry applications, by Valdez and Maria (2019) who found that respondents tended to buy refillable consumer products such as detergents, shower gels, soaps, body care, perfumes, and shampoo. The main reason to buy was to take part in environmental conservation. This finding was consistent with a study by Rammasoot (2015) who studied on the behavior of consumers in Mueang Chiang Mai District in purchasing environmentally friendly packaging and found that consumers purchased environmentally friendly packaging because they would like to be a part of environmental conservation as well.

In addition, the results showed that the respondents usually made their own decision to purchase products with environmentally friendly packaging. This finding was consistent with the results of Poomwitchuvej (2016) which revealed that people usually made decision to buy natural health product on their own. In terms of the frequency of shopping at the refill shop, this study indicated that people usually buy things at the refill shop around 1-2 times a month. This result contradicted to the results of a study by Rammasoot (2015) who found in his study that people usually purchase at the alike-refill shop of 1-5 times per year, which was less frequent than the result of this study. The source of information that led most respondents in this study to buy things at the refill shop was internet. This result was consistent with a study by Ruadriew (2016) who studied on marketing mix affecting female consumers in Mueang Chiang Mai District in purchasing environmentally friendly cosmetic products and found that the respondents bought the product because they followed online-reviews from the previous customers.

Regarding the marketing mix factors, the respondents in this study ranked all marketing mix factors from the high to the highest level. The ranked factors included product, price, place, and promotion, respectively. It was noted that the results differ from the results of the Valdez and Maria (2019) study on the key success factors for refill shops in the beauty industry. The result showed that the respondents prioritized the marketing mix in descending order: price (highest effect), followed by distribution channels, marketing promotion, and products. The results also differed the study by Rammasoot (2015), who studied the consumer behavior in Mueang Chiang Mai District in purchasing environmentally friendly packaging and found that the consumers paid attention to the marketing mix in descending order: price, product, distribution, and marketing promotion. The respondents in Rammasoot's study rated high priority to all four factors.

Furthermore, the sub-factors that were important to using the refill shop include: the price was calculated based on the quantity purchased; the customers could determine the amount of product to be purchased; the unit price was clearly labeled; the products were made from natural ingredients; and the shop's product containers were clean and hygienic, respectively. These findings differed from Rammasoot (2015) study, who found that the top three most important sub-factors were price that was appropriate for the benefit that would benefit both for the environment and the consumers. Products were safe for health and convenient to purchase. Although the results of the study differed in the prioritizing order, it shall be noted that what consumers paid attention to were similar in terms of quality and safety of products, the ease of access to the distribution sources, and to set the appropriate price.

Conclusion and suggestions

From the results of the study, it could be concluded that most of the informants who shop at refill shops were women, age at the start of work, no family, had a bachelor's degree, worked at private companies, and earned an average monthly income between 10,000-20,000 baht. They usually purchased products at the refill shop 1-2 times a month. Most of them bought products for daily use. The main reason they purchased at the refill shop was because they would like to be a part of contributing to environmental conservation. They often made their own purchasing decisions. The informants received information about the refill shop mainly from the Internet. Most of the informants were satisfied with buying from the refill shop. They prioritized the importance of the marketing mix from highest to lowest in this order:

products, prices, distribution, and marketing promotions. The informants also provided the following suggestions:

1. Suggestions for operators of refill shops in Mueang Chiang Mai District and interested entrepreneurs

1.1 From the results of the study, it was found that consumers pay attention to participating in environmental conservation. Therefore, the shops should focus on making consumers understand the concept of the store on environmental protection and waste reduction. In addition, since the consumer group was a new generation who cares about the environment and knows the shop from the internet, therefore, the shops should do a wide public relation. The public relations could be contents through various social media such as Facebook, Instagram, YouTube, to name a few.

1.2 The shops should focus on the products that consumers prefer. Most of the consumers bought shower gel products, followed by shampoo, and paid great importance to quality, safety, and reasonable prices. Therefore, the shops should pay attention to choosing good quality, safe, natural ingredients. They may also consider adding product variations, such as scents, to be more diverse.

1.3 Because the refill shop has a distinctive point that consumers could determine the amount of product to buy according to their need. In addition, many of the customers brought their own containers to fill products from the shop. Hence, the refill shops should always put in the cleanliness and hygiene of the containers used for packing and transferring products to a good standard.

1.4 The results of the study revealed that consumers pay a lot of attention to the location where they can easily access. Consequently, the shops should choose the easy-access location to reach the new generation of consumers, such as in department stores, or a location near the school of the target customer group to increase the opportunity for customers to buy more.

The researcher would like to suggest that the marketing strategy for the business in the form of refill shop as well as other business alike shall be focused on the benefit of sustainability which includes environment, social, and economics in order to meet the trend of consumer needs and achieve environmental goals.

2.Suggestion for future research

2.1 There should be a study of the success factors in marketing a refill shop business or a business with an idea of environmental protection.

2.2 There should be a study of the factors that cause failure in marketing the refill shop business or the business with the idea of protecting the environment.

New knowledge and the effects on society and communities

This research generated new knowledge about the marketing mix that affects consumers in shopping at refill stores in Mueang Chiang Mai District. The shop owners in Chiang Mai and other provinces can apply the results of this study to develop business marketing strategies. In addition, the growth of the refill shops and the alike businesses such as green hotel and low carbon manufacturing will help the society to realize the importance of stakeholder participation to protect the environment in the long run. In addition, the research result would be a good information for the government to apply in its policy on BCG model.

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Communication Process to Promote Public Participation in Anti-Corruption of People in Muang Chiang Mai District

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Abstract

This research was a mixed-method research. The objectives were to study the situation, condition, problems, and communication process in promoting participation in anti-corruption of people in Muang District, Chiang Mai Province. The result was synthesized into a body of knowledge and a guide book, which was assessed the standard as the last step. The population and data sample were 400 people in Mueang Chiang Mai District, which were randomly randomized (Accidental Sampling) from 16 sub-districts aged between 18-80 years with the validity of the sample size at +95% and the errors at +5. The three-part questionnaire was used to collect the data. The second data group was the content analysis presented in 2017 of Chiang Mai News, Thai News, Rob Wiang Chiang Mai radio program, WE TV news, and Chiang Mai Mai Kong radio program. The media content was selected with multi-stage randomization, while the data collection tool was coding sheets. The third data sample group was the interview of 21 people who were directors, editors and journalists from the local mass media, local independent media, a group of academics in mass media, law and social sciences, the leader of public sectors, the community leaders, and officers in the Chiang Mai Office of the National Anti-Corruption Commission (ONACC) and Office of Public Sector Anti-Corruption Commission (PACC). The semi-structured interview was conducted as the data collection tools. The data were analyzed for frequency, percentage, and standard deviation. The research results revealed that people in Mueang Chiang Mai District were the middle class with urban lifestyle with slight involvement with local and the lower classes which had a rural lifestyle. The middle-aged and older were groups that had highly engagement with communities. The media usage and participation behaviors of Mueang Chiang Mai District residents found that most of them use Facebook, LINE, and Instagram. They participated with liking and sharing through social media, only 10.5 percent of them had ever participated in the social movement. The results of the anti-corruption participation found that local media did not attach importance to presenting corruption news for fear of harm, while some had mutual benefits with local politicians. For the anti-corruption agencies such as the NACC and PACC emphasis, it was placed on the corruption combat training of local civil servants and officials. By this, the guideline suggested that the communication process should be divided into two groups: the middle class should use online media to communicate, and the lower-class should apply meetings, community media, and affordable online media as the tool, while the community leaders were the mainstay of communication. The anti-corruption organizations must primarily support the formation of groups with budget, knowledge, and safety. An important aspect of participation is the safety of members and whistleblowers including avoiding conflicts igniting in the community. The communication strategy must provide knowledge and consequences of corruption, the inequality that leads to corruption, protection laws, and safety.

Keywords: Public participation, Communication process, Anti-corruption, Corruption, Public sector

Introduction

Successive governments have attempted to eradicate corruption by issuing corruption suppression policies. However, the situations have been deteriorating, as seen from the country's ranking on the corruption perception index (CPI) by Transparency International. It was revealed that, from 2017 to 2021, the ranking of Thailand fell from 96 in 2017 to 110 in 2021 (Bangokobiznews, 2022). This was in line with the survey of the World Economic Forum, stating that the number one obstacle for investment in Thailand was corruption. The survey respondents perceived that giving and receiving kickbacks (bribery) and corruption among state officers were still rampant. Although there has been punishment of the offenders, they are usually low-ranking officers (Pleantid, 2021). The most frequent complaints are abuse of power, budget allocation with hidden motives, and bribery. As high as 70-80% of the complaints were related to local administration organizations (Matichon online, 2019). Mana Nimitmongkol, the secretary of Anti-Corruption Organization of Thailand (ACT), expressed his opinion that "state mechanisms are not transparent with a double standard of power and legal enforcement. Official administration and non-governmental organizations are intervened and there are no checks and balances on the justice and non-governmental organizations" (BBC News Thai, 2020). Although anti-corruption agencies have launched campaigns and exploited various media, corruption problems have been increasing. Moreover, public participation is at a low level due to safety concerns, ignorance, and remote offices as well as local governmental agencies refusing to publicize relevant information and provide the public an opportunity to investigate and participate (Kaewhanam & Kaewhanam, 2017; Korrasing, 2017).

Communication, for that reason, has become an important tool against corruption. Media can educate about fraudulent behaviors that have negative impact to society. It also helps to detect and disclose corruption practices including the increase of public participation in the audit process (U4, n.d.). In many developing countries, for example, in South Africa, where the news media exposed corruption until the government investigated. Similarly in Bulgaria where in 2019 the media collaborated with NGOs detected corruption of politicians and civil servants. Stapenhurst (2000) explains that the media has created the "tangible effects" in the fight against corruption (UNODC, 2020). In the case of Thailand, although the government has generated a national strategy plan to combat corruption, to promote public participation, and produce several media campaigns, it has barely diminished corruption cases. This research, therefore, needs to investigate and find solutions to reduce corruption through a communication process and increase people's participation. The research's target was people in Mueang District, Chiang Mai province. Chiang Mai people have highly and actively involved in political movements for many decades, in contrast, it is a province in the northern region with high reports of corruption cases. Hence, this research was conducted to reveal the cause and the suitable solution as a guideline to increase people's participation through communication process to reduce the corruption for people in Mueang Chiang Mai District.

Literature review

Definitions and Characteristics of Corruption

Corruption is the abuse of power in the decision-making process and the use of public power for personal gain to facilitate a particular group or even to a single person. It can also happen in all occupations, such as governments, civil servants, parties, corporations, educational institutions, villages, tribes, families and friends. Corruption doesn't always have to be a matter of money. It may be the use of the position for personal gain (Corruptie.org, n.d.; International Monetary Fund, 1998, p. 8). Corruption can be divided into several types, for example: grand versus petty corruption, conventional versus unconventional corruption, and public versus private corruption (Public Safety Canada, n.d.). The behaviors consist of bribery, extortion, fraud, embezzlement, nepotism, cronyism, appropriation of public assets and property for private use, and influence peddling (Myint, 2000). Corruption in developing countries is a major hurdle for their development. They are rampant due to low income or a low level of GDP, closed economy, influence of religion, low media freedom, low people freedom, a low level of education, and high political conflicts (Transparency International, 2014; Sumah, 2018). Whereas the most common corruption practice in Thailand is bribes, business interference from government officials, indecisiveness in punishing, inefficiency in the work of government agencies. It can be seen that the government is indifferent in reducing the rise of corruption (PPTVHD36, 2022). Also, Chiang Mai is another province with corruption. There were 1,165 corruption complaints in 17 Northern provinces, with the most complaints in Chiang Mai and Nakhon Sawan provinces. Topics of most complaints were related to procurement, negligence in the performance of one's duties or abuse of function, and bribery (Thaipublica, 2015).

People's participation

The United Nations Research Institute for Social Development defines people's participation as the organized support to increase control over resources and regulative institutions on the parts of groups and movements hitherto excluded from such control. It is also the efforts that people make in order to influence public policy decisions (United Nations Research Institute for Social Development, cited in Involve, 2005). Public participation, besides, must be formed at the grassroots level, not by a state agency. There is collaboration among stakeholders in order to influence policies and decision making on programs or activities that affect communities. The objectives of public participation are for administration transparency, community empowerment, community development, and promotion of active citizenship for equality (Singh, 1992; Holdar, 2002; Involve, 2005). Participation in daily life can be done in several manners, such as, publicizing information, catching up information, or participating in program activities, from brainstorming, expressing opinions, criticizing programs, partaking in public forum, to participating in the budget. Additionally, daily participation can be done in the forms of catching up relevant issues from the media, voting, signing a petition, or participating in a gathering, meeting, or financial mobilization (Arnstein, 1969).

As for public participation in Thailand, it was initially the formation for political movements. Whereas anti-corruption and anti-state power, it was found in the last decade due to conflicting opinions and conflict of interest between local people and state agencies (Ananapibut & Suntranurak, 2015). In Chiang Mai and the upper northern region, group formation of communities and the people sector was found in areas having impacts from state policies. Consequently, local networks were established by employing "the culture for battle" strategy and conventional community cultures as well as religious beliefs, both Buddhism and Christianity, were exploited. Additionally, there was in-group and public communication to cultivate understanding and support mobilization on movements, financial support, community supporters, community networks, NGOs, and academics (Yuenyong, 2014; Maneerattanachaiyong, 2016). On the other hand, people in urban and semi-urban areas were formed into larger networks, consisting of the middle class and organizations, e.g., academics, artists, business and private sectors, state agencies, mass media, and religious organizations. Nevertheless, they were mostly the middle class.

Media and anti-corruption participation

A crucial tool to promote public participation is the media. The media play a role in inspecting and presenting corruption news on a regular basis, proposing solutions, and collaborating with the state, private and public sectors. Schauseil (2019) stated that the media play three major roles. The first role of a watchdog against corruption is to inspect and report corruption events in order to scare those intending to get involved in corruption. The second role of promoting integrity involves campaigns for all sectors to perceive the importance of anti-corruption collaboration among domestic and small media to publicize a wider perception on the issue. The last role is to engage citizens in anti-corruption by exploiting modern technology, so that everyone is able to access it and participate in the issue. The media should cultivate “a watchdog culture” in the society by inspecting, reporting, and providing the public of all levels an opportunity to participate. Thus, social media can play a significant role in providing the public an opportunity to participate in anti-corruption. Moreover, the media can promote the participation of civil society by supporting and presenting those inspection results (International Bank of Reconstruction and Development, 2000). To accomplish this, the media must have a freedom in news reporting. Journalists and newsmen must have sufficient income in order not to take bribes, and have undergone skill training in presenting investigative news (International Bank of Reconstruction and Development, 2000; Tegulle, 2011).

As for the anti-corruption role of Thai media, they have not performed their duties to a satisfactory level. They have been free to carry out only some aspects of their duties in the past decade. However, it was found that Thai media are often used as public relations tools to promote activities by governmental organizations. We can see corruption investigations and exposures which more common in independent media, while the local mass media are still less active due to the mutual interests and threats of news coverage (Bangkokbiznews, 2022). Although, some of them are independent media, they have not intended to commit themselves to the anti-corruption role. However, the media practitioners have perceived that anti-corruption campaign activities of the anti-corruption agencies have not been effective. They seem like a publicity of the agency performances rather than serious actual problem solving (Sirisawad, 2017).

The conceptual framework

Figure 1 The conceptual framework

From the conceptual framework, this research applied three concepts which are Definition and characteristics of corruption, Public participation, and Media and Communication process to promote public participation in anti-corruption to create a research conceptual framework in order to create anti-corruption guidebook for people in Mueang Chiang Mai District.

Research objectives

1. To investigate the contexts, problems, and communication process in promoting public participation in anti-corruption of residents in Muang district, Chiang Mai province
2. To synthesize the knowledge in the form of a guidebook on the communication process
3. To assess the standards of the guidebook

Expected results

1. There was realization on the contexts, problems, and communication process to promote public participation in anti-corruption of the residents.
2. Knowledge, mechanisms, and an efficient guidebook for creating the communication process to promote public participation in anti-corruption were derived.
3. The research findings could be used as tools and mechanisms to reduce corruption problems in the province and other urban and sub-urban areas.
4. There are guidelines to create public participation in the form of areal and online networks between the state, civic and public sectors in anti-corruption and other issues.

Methodology

This research utilized a mixed-method approach to collect both quantitative and qualitative data as follows.

1. Procedures for collecting data on the current situation and problems of the variables in Chiang Mai

1.1 Quantitative data collection

The first group is the population and sample group of 234,837 residents in Mueang Chiang Mai District (the 2016 data) which were randomly randomized (Accidental Sampling) from 16 sub-districts. They were both males and females aged between 18 and 80 years old. The Yamane formula was applied to define the sample size at 399.32 or 400 residents, with the validity of the sample size at +95% and the errors at +5. The three-part questionnaire was used to collect the data. The first part was concerned with general information of the respondents, which included gender, age, occupation, income, and educational level. The second part was about their behavior on social media and application use for communication. The third part involved their aspects of social media and application use for their exposure to information as well as social movement groups on the issues of corruption. Their behaviors of the third part were divided into two topics. The first one was their use of social media and communication applications for corruption news presented by the press and the general public. The second one was their use of social media and communication applications for social movement groups. The questionnaire was verified for its content validity by three experts specialized in mass communication, social sciences, and political science. The data were statistically analyzed for frequency, percentage, and standard deviation.

The second data sources were local media contents presented in 2017. The multi-stage random sampling method was applied to select the sample group, which consisted of "Rob Wiang Chiang Mai" radio program, "WE TV News" by the WETV Cable Television Network, Chiang Mai News and Thai news newspaper, and Chiang Mai Mai Kong (Zero corruption Chiang Mai) radio program by Chiang Mai Office of the National Anti-Corruption Commission (ONACC). The data collection's instrument was coding sheets which was verified the content validity by three experts. The analysis of contents that promoted public participation and corruption in Chiang Mai was conducted. The data analysis units were theme and item, while the data from the coding sheet were analyzed for frequency and percentage.

1.2 Qualitative data collection

The depth interview was conducted with 21 informants. The first group of local mass media and local independent media were consisted of directors, editors, journalists, and news anchors. The second group was officers in the Chiang Mai Office of the National Anti-Corruption Commission (ONACC) and Office of Public Sector Anti-Corruption Commission (PACC), while the third group was media, social science and law academics. Besides, community leaders and public sector leaders of "the Green Beauty Scented Organization" and "Love Doi Suthep Network" was interviewed as the last group. The content validity of the semi-structured interview form was verified by three experts. The interview focused on contexts, problems, and communication process in promoting public participation and a guideline for establishing anti-corruption groups or networks to promote both the onsite and online participation of the public in Mueang Chiang Mai District. After this, the data were categorized and analyzed descriptively.

2. Steps in making and assessing the efficiency of the guidebook

The data from the first step was summarized, divided into groups or topics, and analyzed until the result was obtained and created a guidebook. Next, the guidebook had the standard assessment in the four dimensions, which include utility, feasibility, propriety and accuracy standards (Buosoute, 2012). The content validity of the assessment was verified by 3 specialists in Social Sciences, Political Science and Assessment. It was calculated for the index of item-objective congruence (IOC) of each statement. Subsequently, the assessment results revealed that the efficiency of items 1.5, 2.3 and 3.5 was at a high level, whereas that of the rest of the items was at the highest level. The results from the first assessment were used to improve the contents. Then, the guidebook utility was re-assessed by 3 leaders who were representatives of the expected users from the ONACC, local independent media, and the public sector, to examine the content validity and improve the language and issues until the efficient guidebook was obtained.

Results

1. The study results on the contexts, problems, and communication process to promote public participation in anti-corruption

1.1 The aspects and behaviors on anti-corruption participation of the residents in Muang district, Chiang Mai province

The residents

The residents were classified into two major groups: the middle class and the grassroots or lower class. The middle class consisted of local residents and those migrating from other areas. They were not so interested in inspecting corruption at the local level but in public problems at the national level. The lower class consisted of local villagers and those migrating to reside in congested urban areas. In terms of participations, they formed into groups to participate in political activities at the national level, and they were not so interested in local politics as well. The elderly lower class was most active in involving activities and meetings. Due to the internet expenditure, most of the lower class barely used social media; however, some used social media such as LINE to form into groups, e.g., villagers group, village headmen groups, or village health volunteers group. The grassroots were not so involved in inspecting and filing local corruption complaints. If there were issues, they would gather and file their complaints via their community leaders since their kinship relationship was still in existence. Community leaders were consulted whenever problems arose. Nevertheless, these community leaders were often involved in consensual corruption with local influential figures. In such a case, complaints were filed through local mass media or agencies dealing with corruption suppression. On the other hand, the middle class mostly use social media for participation and occasionally join social movement demonstrations. For complaints of corruption, they often complain through arranged state channels and media.

Local mass media

From the interviews, it was found that directors, editors, and journalists of local mass media conceded that corruption news was not presented as often as it should have been for fear of eminent threats. Some media outlets, moreover, were owned by businessmen and had ties with local politicians. Occasionally, local people have complaints through their media, while the evidence must be examined before reporting. However, the local media staffs usually recommend the whistleblowers report to the responsible anti-corruption agencies. This was in line with the analysis results of local news contents, revealing that Chiang Mai mass media presented very little corruption news.

The result from the analysis of news contents in 2017 from 4 local mass media platforms was revealed that Chiang Mai News presented corruption news in the front page news the most, at 63.63%, and 27.27% at the opinion columns. Thai News presented the news in its news articles the most, at 62.5%, and 25% in the front page news. Additionally, Chiang Mai News presented most corruption news in the criminal news, at 26.31%, 15.78% in law news, and 10.53% in political news respectively. Thai News presented most corruption news in political news at 36.36%, 18.18% in financial and criminal news, and 9.09% in environmental news respectively. As for corruption types in Chiang Mai News, it was found that 26.66% were on negligence of official duties, 20% on conflict of interest and abuse of power, and 13.33% on fraudulence and concealment of bidding information and practices of state agencies. The same was found in Thai News with 36.36%, 18.18%, and 9.09% respectively. For the Rob Wiang Jiang Mai radio program, it was revealed that no corruption news was presented. For WETV program, only two pieces of such news, or 2.58%, were presented in short news and criminal news. On promoting public participation in anti-corruption, it was found that Chiang Mai News and Thai News presented corruption news at 46.7% and 45.45%, followed the news at 33.33% and 27.27%, and persuaded the public to inform corruption activities at 20% and 9.09%. On the other hand, the similar contents were not found in the radio and WETV News programs. In summary, from the interview and content analysis of local media, it was found that very little corruption news were presented which mostly were news from other provinces.

Local independent media

Independent media in Chiang Mai had more coverage of corruption news in the form of investigative news. However, they are still unable to carry out to their fullest extent because they are small organizations without adequate financial resources. More often than not, they have to mobilize financial support from external agencies. It requires time and financial support to report corruption activities, and threats and dangers often occur. What they can do is to start the issues in order to catch attention of national media. Certain independent media organizations focus their attention on promoting, training and encouraging the public to report corruption news or to become civil journalists in an attempt to empower them to inspect and report such news by themselves. This is regarded as the cultivation of public participation.

Officers of the Offices of the National Anti-Corruption Commission (ONCC) and the Public Sector Anti-Corruption Commission (PACC) in Chiang Mai

The two agencies are involved in anti-corruption in Chiang Mai with the main focus on training state employees, officers of local administrative organizations, some students, and some groups of the public in order to raise their awareness on the corruption issue. The emphasis is on punishment, relevant laws, and corruption complaints from all sectors. However, media and training information are produced in the headquarters in Bangkok and implemented nationwide which were not so relevant to local contexts. The two local agencies produce some media of their own due to budget restrictions. For instance, the Chiang Mai ONACC produces a radio program to provide the public knowledge about corruption laws and current policies from the government. Both agencies also have major roles in educating and receiving complaints on anti-corruption in Chiang Mai. The two agencies mainly use speakers together with the real case study of the law and the punishment to communicate and attract attentions from participants. Nonetheless, these two agencies worked passively and primarily focused on educating and training local officials.

The results in this section revealed that residents in Mueang Chiang Mai District as well as the local media were not earnestly interested in participating in anti-corruption, but continue to participate in activities of their own interest that was beneficial. The fear of intimidation was one of major reasons. Furthermore, the middle class were not really affected from corruption since they had a regular income. On the other hand, the lower class was clearly affected from receiving equal and complete allocated resources from the state.

1.2 Behaviors of the participants in exposure to and participation in social media

The results of the study in this section are information of the use of social media of the sample group. The result was used in designing suitable media and communication channels for target groups. Moreover, the result of participation behaviors were applied to understanding the target groups which led to the creation of communication strategies.

From the survey, general information of the respondents revealed that the number of male and female respondents was equal. It was found that 46% were aged between 20 and 30 years, 14% between 51 and 60 years, and 13.3% between 31 and 40 years. As for their education, 59.3% were bachelor degree holders, 10% were high school certificate holders, and 8.3% were master's degree holders. Regarding their monthly income, 3.5% earned between 20,001 and 30,000 baht, 29.8% between 10,000 and 20,000 baht, and 12.3% between 30,001 and 40,000 baht. As for their occupations, 22.3% were involved in self-employment or trade, 21.5% were students, and 14.3% were in others.

As for their behaviors in exposure to social media and applications, it was revealed that 91% were using Facebook, 85.8% were using Line APP, and 47% were using Instagram. With regard to their frequency of use, it was revealed that 74.3% used them every day, 13.5% used them 4-5 days a week, and 7.3% used them 2-3 days a week. For their duration of use, it was found that 35.8% used them between 20.01 and 24.00 hours, 30.8% used them all day, and 14% used them between 16.01 and 20.00 hours.

Regarding their manners of using social media and communication applications toward social movement groups concerning corruption, it was found that 38.8% just followed corruption news and movements, 22.8% clicked emoji icons to express their likes or emotions, and 20.5% shared corruption news to others.

Nevertheless, it was revealed that, among the respondents, 44 of them or 10.5% participated in the movements convinced by leaders of social movement groups. About five of them or 1.3% donated money or things to support the movements and their leaders. Furthermore, five of them or 1.3% participated in dress, using products and decorating places as convinced by the groups and their leaders. The results showed that of these people, social media is the most popular for news and engagement, with only 10.5% of people who have really joined the social movement. Most of the sample group showed an engaging role by interacting with the content through social media, but other forms of support such as wearing a support t-shirt, hanging a flag, and tying a green ribbon are not shown. Besides, those who have joined the previous movement, they participated in rallies, donate money, and doing activities to support the movement. From the research results, it was summarized that most of the respondents were middle class. They preferred to use social media and only 10 per cent of them participated in social movement rallies.

2. Knowledge synthesis and analysis results to create the guidebook

The author analyzed and synthesized the aforementioned results to create the guidebook which consists of the guidelines for group/network formation and the communication process to promote anti-corruption. The user of this guide is the anti-corruption agencies and the public sector. The communication process must be created in parallel with the establishment of the anti-corruption group, by this; the next part will describe this process.

1. To create a communication process for people in Mueang Chiang Mai District, the target group must be divided into two groups: the middle class and the lower class groups because of the differences of participation and media use behavior. In addition, from the political conflicts for nearly twenty years in Chiang Mai, some of these two groups have had different political views. Whereas corruption is often associated with political factions and different policies, it is unlikely that the two groups can be participated harmoniously and effectively.

2. From the research results, it was not recommended to create a special group to act solely on anti-corruption because of threats and intimidations. Besides, this may not be recognized and caused suspicion by local authorities and people. To reduce the repetition and responsibility, the tasks should be partaken by the existed groups in community. As well, the activity should not be too demanding or risky so that the local were contented in joining. Good governance or community development was the appropriate terms to name the group or created as objectives, especially in rural areas.

3. The anti-corruption agencies in Chiang Mai must provide the groups on information and knowledge of corruption, legal and technical advice, funding, training, media production advice, protection of groups and whistleblowers, and project implementation tools.

4. Anti-corruption cannot be achieved with any one group; there must be cooperation and support from partners. Corruption behaviors are complicated, it is necessary to have knowledge to distinguish. Other than this, group members must learn and understand the laws and regulations to protect themselves as well as methods to communicate and produce the effective media, thus, the people's sector, the governments and anti-corruption agencies must cooperate with the groups. Educational institutions and local media should provide advice and workshops on communication skills, media production, and civic journalism skills.

The next part is the Table 1 that presented the communication process establishment which divided into 4 components: senders, messages, channels, and receivers.

Table 1 Components and details for group/network formation and the communication process for anti-corruption

<table>
<tr><th rowspan="2">Components</th><th colspan="2">Details</th></tr>
<tr><th>The middle class</th><th>The lower class</th></tr>
<tr><td>1. Guidelines for group/network formation in communities.</td><td colspan="2">1. Survey of community's corruption issues, resources, prospective partners, residents' behaviors on corruption/participation/media use, and local government's anti-corruption policies.
2. Brainstorm the commitment, objectives, policy, and strategies to encourage participations and combat corruption.
3. Create a network and partners with external groups such as anti-corruption agencies, educational institutions, non-governmental organizations, business, public sector leaders, local mass media, and independent mass media, academics, influencers, and interest groups to support and promote the group's activities. Partners and networks are vital for members' safety. They can provide various channels for reporting and hinting the clues.
4.Safety is of the utmost importance which can build trust for participants. In some cases, it is not always necessary to reveal member's identities. However, there should be channels to contact the group.
5. Building trust and familiarity among members may take time, thus, the group leader should initially design easy and fun activities to attract more participants and break the ice.
6. Groups and networks must be open to any comments and encourage members to report the corruption clues through safety channels. However, issues related to political conflicts should be strictly avoided.</td></tr>
<tr><td colspan="3">2. Guidelines for communication processes</td></tr>
<tr><td>A. Senders/ Founders/Actors</td><td>1. Founder of the group or network should be the public sectors cooperate with anti-corruption organizations.
2. Group leaders should review the disseminated information and monitor the members including the partners.</td><td>The founder of the group or network should be the leader of the community working with anti-corruption organizations. Community leaders, regularly, are trusted by locals to lead in various activities and distribute resources.</td></tr>
</table>

Components	Details	
	The middle class	**The lower class**
	3. The group should provide channels for commenting and reporting clues with a strict confidentiality process. **Communication strategy:** The middle class did not have much time to participate onsite. Therefore, the network or group should be built primarily through online media and provides constant information, especially the impact that affect the way of life in urban areas, such as the lack of budget for road development, electricity, and quality of life, etc. Moreover, the sense of belonging to Chiang Mai community must be created to promote participations.	**Communication strategy:** Meetings in a community setting is required; however, there must be other channels that allow people who are not comfortable with revealing identity to contact the leader.
B. Messages/ Contents	1. Contents or messages must be created in accordance with communication goals to increase awareness, recruit partners, resources, and encourage more whistle blowers and participations from various groups in community. 2. Contents that must be presented is: 1) corruption aspects and types, 2) laws and punishment, 3) whistle-blowers' protection guidelines, 4) the 1997 State Information Act, 4) cultivation of attitude and behavior to anti-corruption, 5) convenient and safe channels for corruption complaints. 3. Contents must be uncomplicated and tailor-made in line with target audience. Local dialect may be applied.	
C. Media/ Channels	1. Online media or social media should be the major communication channels for this group, since they participate through online media the most. 2. Public sectors should cooperate with anti-government organizations to manage the media. 3. Recently, some anti-corruption social media pages have been emerged, these can be others channels to inform	1. For the in-group communication, the group should use village broadcasting towers and meetings. 2. Media for the out-group are online media, activities such as exhibition, rallies, sport, cultural, and music events.

Components	Details	
	The middle class	**The lower class**
	the clues. Some journalists point out that these pages are probably originated by staff from the anti-government organization to disclose the cases.	3 . Skilled and experienced speakers are the essential medium for the lower class. They may invite speakers from partners and also train some local speakers. 4. Whistle blowers channels should be created and coordinated with anti-corruption organizations.
D. Receivers/ Target audiences	The middle age residents who have been in Chiang Mai for a long time should be apply local beliefs and Lanna or northern culture as communication strategy. On the other hand, the younger generation should be convinced with information, unequal, disadvantages of corruption which impacts to their daily lives.	

Table 2 The standard assessment results of the guidebook

Standard	Description	Experts' opinions	
		Mean	Standard Deviation
1. Utility	The guidebook can differentiate concerned stakeholders and they are able to benefit from it clearly. The contents are wide-ranging and in response to the needs and interest of users. They are easy to understand and up-to-date	4.17	0.26
2. Feasibility	The guidebook proposes practical implementation methods, and the implementation methods and steps are cost-effective.	4.11	0.39
3. Propriety	The contents enable related groups to create communication processes to promote public participation in anti-corruption efficiently. The presentation of the contents and implementation steps is based on the respect of group's dignity and value. The presentation is also morally and ethically suitable for resources and expenses.	4.00	0.00
4. Accuracy	The explanations of the contents and methods are clearly detailed with suggestions of relevant data sources, resources, agencies, and groups. The implementation steps are clear and adequate with valid and systematic contents.	4.37	0.33

This table 2 is presented the result of guideline evaluation, while the guideline's contents were created from the synthesized information from Table 1. The evaluation process has been conducted twice. The first process was the content validity evaluation by 3 experts on participations, communications, and laws, followed by the second assessment of the guidance users which was a representative of the anti-corruption organization, public sector leaders, and independent media journalist. The assessment results revealed that the efficiency of items 1.5 (Utility Standard), 2.3 (Feasibility Standard) and 3.5 (Propriety Standard) was at a high level, whereas that of the rest of the items was at the highest level.

Discussions

1. Contexts, problems, and communication process in promoting public participation in anti-corruption of the target group

From the 400 respondents of the questionnaire, it was found that only 10% used to participate in social movements. For their behavior in using social media to participate in inspecting corruption, it was revealed that most of them used the media to follow such news, indicating that the middle class in the study area were involved in less participation in local development. This might be due to the fact that there was a demographic change over two decades ago when local residents migrated to less urban areas after there was more traffic in town and residences were more congested. New migrants into the city center were middle class people from other areas, so they felt less love and bond to the locality (Charoenmuang, 1989). Although the new immigrants were willing to collaborate with their communities, conflicts occurred (Binthavihok, 2009). Moreover, educated and wealthy middle class did not like to participate in community meetings or activities and they had channels of communication and complaint filing without going through community leaders (Pa Daet Sub-district headman, 2018). The participation of the middle class in social movements is on the issues of the environment, politics, and development. These issues involve the networks at the provincial and national levels. Nonetheless, the grassroots do not usually participate with the middle class due to political conflicts over ten years ago. The former perceives that the latter participate in the movements that are against the progress of the province (Mattana, 2006; Pinta, 2013; Maneerattanachaiyong, 2016). The latest movement in Chiang Mai involved over 50 networks at the provincial and national levels, called "Love Doi Suthep Network". These movement leaders were still the middle class who were both local residents and those migrating from elsewhere. Group leaders expressed their opinions that Chiang Mai is a city with NGOs and most of them migrated from other areas, and public movements are still going strong (Leader of Love Doi Suthep Network, 2018; North Public News, 2018). Consequently, the media and language used in movements of these groups may be appropriate to the middle class, making some of the lower class being unable to access and understand. Accordingly, most of social movements in Chiang Mai have been led by these middle class networks.

The participation of the grassroots in local developments was still at a low level due to several hurdles, such as, insincerity of local agencies in revealing budget information and concealment of the information that people and the public sector asked for. More importantly, people at the grassroots level are afraid of the influence of local state employees and officers because these influential figures have a close connection. Furthermore, people do not pay much attention to and are not aware of the importance of public participation as well as the understanding of their duties and impacts. In remote areas, travelling can be difficult, so they are unable to attend meetings, besides, many people are daily wage earners and their daily income will be lost if they attend the meeting (Chalui, 2006; Sirisoda 2014; Anti-corruption officer of ONACC, 2018). Some grassroots people in urban areas participate in activities that are specifically beneficial to them, e.g, development activities or election of politicians who promised to bring good to them (Pa Daet Sub-district Headman, 2018; Sattayanurak, 2018; Director of Thai Civil Rights and Investigative Journalism, 2018).

For the problems and hurdles of local mass media in investigating corruption, they stem from business restrictions and safety, because they are small-sized and depend on local supporters. At the same time, business people are also owners of the media, so the focus is more on benefits than on ideology with the practices of mutual interest in order to survive. Although relevant laws and measures have been issued to protect complainants and witnesses, they do not cover and support the work of local mass media. Moreover, the media do not earn much, so they opt for presenting news that does not affect their lives. This is another cause that makes the media to become a part of corruption (Tegulle, 2011; Numcharoen, 2018; Saeteow, 2018).

From this, it can be seen that the middle and lower classes did not highly partake in corruption combat because of work, family, economic burdens, prolonged political conflicts in Chiang Mai, lack of local bonds, and threats. Moreover, investigation and punishment process took time; people did not want to take risks and waste money and time to testify including the danger from revealing identities. Thus, other key guidelines to against corruption is establishing channels to educating and training, reducing political conflicts during the commination process, stressing on damages from corruption, and finding a convenient and safe way to whistle-blowing. The leaders must not instigate members to cause conflicts and intimidations in communities. All of these can help people to get more involved.

2. The knowledge analysis and synthesis results to create the guidebook

To accomplish the objective, the guidebook was created from the results of media use and participation behavior from a survey of 400 residents in Mueang Chiang Mai District, including the interview of academics, anti-corruption staff, community leaders, public sector leaders, and media practitioners. These data have been used to design media and communication strategies for the middle class and the lower class in Chiang Mai such as the effective types of media and messages and the partners and resources supporters. The guidebook was evaluated the standard assessment in the four dimensions of the guidebook thereafter , which include utility, feasibility, propriety and accuracy standards in accordance with the methods of Ratana Buosoute (2012) and Jintana Sooksomdan (2021). In terms of guidebook's contents, it is divided and explained into 4 elements of SMCR (senders/founders, messages/contents, channels/media, receivers/audiences). There are two groups of guidebook user. The primary user is the governmental and anti-corruption organizations, whereas the public sector is the secondary user. In regard to groups and networks creation, the middle class and lower class should be created their own groups since they have different media use and participation practices. Online media is the most appropriate channel for the middle class, while meetings and community media should be the main tool for the lower class group.

The middle class preferred to use Facebook, Line, and Instagram. The public sector group also mentioned that those participating in movements, particularly the middle class, preferred to use social media for participation. It was advisable that the anti-corruption group or network produce their own media. Presently, public sector groups have started using social media to publicize information in conjunction with mass media, activity media, and specific purpose media. However, social media are the mainstream because they are cost-free. Additionally, contents can be specifically designed, information can be spread more quickly, and mainstream mass media can be attracted to participate in news production (Suwantarat, 2012).

The media for the grassroots consist of person media or speakers, who are ideological and respectable leaders like state officials, village heads, monks, or teachers. Moreover, they should apply village broadcasting towers as well as activity media, e.g., folk play, exhibition, drama and music, in order to convey messages and movements to the public. The use of social media for the grassroots has still not been convenient because they have to pay for internet services (Kaewthep, 2000; Don Kaew Chief Administrator of Sub-district Administrative Organization, 2018; Pa Daet Sub-district Headman, 2018). Moreover, for the grassroots groups, it is found that a good leader and/or an efficient speaker will be able to motivate them to participate. The leader as the group speaker must possess high leadership, be ready for change and inquisitive for new knowledge, and seek both internal and external collaboration. Furthermore, he should be able to convince members to develop themselves and perceive the benefits of the public. In addition, he should provide everyone an opportunity to express their opinions and to take part in thinking and designing activities that they are satisfied with and trust in, so that more participation can follow suit (Mungkung, 2017; Don Kaew Chief Administrator of Sub-district Administrative Organization, 2018; Pa Daet Sub-district Headman, 2018).

In terms of contents, the guidebook suggests the presentation of corruption causes and solutions in communities. People should be made aware of the impacts and damages of corruption on their lives and communities. Moreover, complaint lodging processes and relevant laws should be proposed and issued in order for the safety of complainants. Complaint lodging channels should be specifically created and personal information of complainants must be kept strictly confidential. Local administrative organizations should not be involved as there might lead to conflicts and dangers.

There should be a collaborative network among anti-corruption agencies, the public sector, mass media, and others in order to support one another. Giving rewards to complainants and whistle-blowers is another way to motivate them (Sanositrakul, 2010). Nevertheless, some people have still lodged their complaints via mass media. It is therefore recommended that the government establish a fund to support local and independent media to work specifically on anti-corruption, so that they can be independent and have mechanisms to protect their safety (International Bank of Reconstruction and Development, 2000; Numcharoen, 2018). In addition, collaboration with neighboring communities in order to share knowledge and create a network is the key for safety and resources supports. Community members should form their own communication process in an attempt to establish solution guidelines through collective thinking, learning and bonding, so that real public participation is achieved (Gilbreath & Zakharchenko, 2002; Sthaphitanonda, 2008).

Conclusion and suggestions

This research article revealed that characteristic of residents in Mueang Chiang Mai District is a city blended with rural. Most of them are middle class with local origin; also there are a lot of middle class immigrants from other provinces. The residents are not interested in participating with local issues, but focus on national issues. This may be due to a lack of local relations and a middle-class lifestyle that pays attention on work and current agendas. Social movements of the past decades have applied Lanna culture and religious beliefs as movement strategies. However, when the character of the people changed and developed into an urban lifestyle making it impossible to use this traditional communication strategy effectively.

Accordingly, creating a communication process to promote participation must divide into 2 groups, the middle-class groups with urban lifestyles and the lower classes with a rural lifestyle. The first group prefers to communicate and participate via online media, while the latter prefer on-site meetings which the community leaders are influential in leading activities and receiving complaints. Significantly, the communication process to promote anti-corruption must emphasize on safety and confidentiality of whistleblowers. It is necessary to be a network with anti-corruption organizations, educational institutions, and local media to support funding, information, and legal and security assistance. In addition, the middle class and lower class in Chiang Mai has had conflicts caused by diverse political views. Issues of corruption are often related to groups and politics which easily lead to conflicts. To reduce this conflict, group leaders need to be cautious and emphasize on corruption combat and goals. What is mandatory for every group is that channels for lodging complaints about and inspecting corruption must be confidential, safe, and convenient. Although the public sector should play a key role in combating corruption, there are threats and dangers toward the whistleblowers. Therefore, anti-corruption organizations must play a vital role in advocating in this area to build trust. Chiang Mai is a province where the public sector is strong, so concerned agencies should provide necessary resources to them to fight corruption. To distinguish corruption behaviors, training on knowledge about corruption inspection and communication should be particularly provided to the groups. Additionally, state agencies must be serious in revealing relevant information to the public. Nonetheless, safety of complainants must be of utmost importance in order for the public to be willing to participate in the corruption combat.

New knowledge and the effects on society and communities

This research found that people living in Mueang Chiang Mai District have both urban and rural lifestyle, while there is an immigration of the middle class from other areas causing a lack of ties with local life, culture, politics, and social issues. Moreover, urban life drives them to work and study hard which leaves no time for local participations. The middle class pays attention to politics and national agendas, but neglect local problems, especially on corruption. Therefore, to create participation at the local level, it requires communication processes through online media that demonstrate how an unequal resource allocation effect on their quality of life. On the other hand, the lower classes still have a rural lifestyle which community leaders are a key player in leading activities and participations. Consequently, leaders and facilitators with communicative skills contribute to a greater understanding and participation of lower classes. Furthermore, political conflicts between the middle and lower classes in Chiang Mai remains a major obstacle on cooperation, whereas anti-corruption is often associated with investigate and reveal the policies and practices of some particular groups which stimulate more conflicts. To accomplish the plan, the group leader must be cautious and focus on the corruption's solutions and control the political conflict among members. Lastly, the key to participation is ensuring the safety of participants and the confidentiality of whistleblowing. Local anti-corruption agencies must take the lead in building this safety together with the community in order to promote trust and active participation of all groups.

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Development of Human Resource Management Structural Equation Model of the Automotive Parts Manufacturing Industry in Thailand

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Abstract

This research aims to study the human resource management model influencing the operational efficiency of the automotive parts manufacturing industry in Thailand. It is quantitative research and the research tool used was a questionnaire. The sample groups were executives of 500 establishments. The results showed that the knowledge management was average at a high level followed by human resource management, operational efficiency, and organizational innovation. The correlation analysis found that human resource management had a close relationship with organizational innovation. Knowledge management and operational efficiency were high as per the results of the concordance analysis of the model. It was found that the factors directly influencing operational efficiency were human resource management, organizational innovation, and knowledge management. These factors are important tools that help increase operational efficiency and create sustainable competitive advantages for the automotive parts manufacturing industry in Thailand.

Keywords: Human resource management, Knowledge management, Organizational innovation, Operational efficiency

Introduction

The automotive industry is the cornerstone of Thailand's economic development. It is currently worth 5.8% of the gross domestic product (Economic base, 2018). The automotive industry has received a lot of attention from automotive operators around the world. For that reason, the automotive industry is the target industry that will drive the Thai economy in the future. It will be developed as a production base for electric vehicles, expanding business in the value chain of the automotive industry especially the design and prototyping whilst promoting the use of efficient and high-precision production technology. (Eastern Special Development Zone Policy Office, 2019) As for the Thai automotive industry in 2018, there is a rising trend, when looking into both internal and external factors. From this direction, in the automotive industry, there was a 16.2% increase in car sales in 2018. The main factor is the recovery of the domestic economy, improved consumer confidence, and more tourists traveling into Thailand. Including the fact that customers use their first car for 5 years and by then consider a car change. In addition, government assistance to low-income earners also positively affects the growth of the automotive industry. (Economic base, 2018)

Therefore, in order to increase the competitiveness of the automotive parts manufacturing industry in Thailand to have global competitiveness, the organization must focus on human resource management. To help plan the recruitment of personnel with knowledge, abilities, and good attitudes to be the new personnel of the organization. As a result, the organization will and should have sufficient personnel to perform various duties as necessary continuously and appropriately to help strengthen and develop the organization to be successful (Farouk et al., 2016). At the same time, the organization should develop personnel with a training system by providing internal training by recruiting people with expertise and expertise to teach in the organization. Even consider sending the necessary staff to a training and development center or establishment to take part in a program sponsored by the organization itself that was deemed relevant and feasible. As a result, personnel develops themselves in terms of acceptance, learning, understanding, and application. (Boonpetch, 2018) In addition, human resource management also helps to define guidelines for managing personnel within the organization throughout the process and helps develop personnel in the context of an appropriate organizational environment. This leads to the formulation of strategies that are consistent with the vision and main missions of the organization, ultimately resulting in the achievement of the organization's visionary goals. (Phurich and Amornsiripong, 2018) Whereas knowledge management motivates personnel to be creative. Appropriate innovations are used in operations, therefore, organizations must promote and support learning in order to increase the ability to manage knowledge leading to development. In addition, knowledge management is also a tool for determining the sustainable success of an organization. (Jantarajaturapath et al., 2016)

With great emphasis and interest, the researcher was interested in studying the human resource management model that influences the operational efficiency of the automotive parts manufacturing industry in Thailand.

Objective

To study marketing mix affecting consumers in purchasing at refill shops in Mueang Chiang Mai District.

Research objectives

1. To study the components of human resource management, knowledge management, organizational innovation, automotive parts manufacturing industry and operational efficiency

2. To develop a structural equation model of the human resource management model that influences the operational efficiency of the automotive parts manufacturing industry in Thailand.

Literature review

Human resource management

Organizations require a large number of human resources for performing various functions in order to obtain quality human resources which the organization must develop and maintain human resources to be able to work for the organization effectively. The ‘effectiveness’ to predict the future human resource must be related to the direction and plans of the organization. It consists of planning, recruiting, selection, development, compensation, health and safety, and labor relations in order for the organization to have increased operational potential and profitability. From the point of view of the management, the focus of human resources in an organization is to develop employees to have a better potential thereby empowering organizations to compete effectively Hanifah et al. (2019) Like Hamza's research (2016). It was found that human resource management policies are related to organizational performance because human resource management is a part that helps develop personnel in the organization to have the ability to act. Further to strengthen the organization and the working capacity (Nilawan,2018) which found that organizations should focus on internal resources that are considered valuable assets to increase organizational efficiency, while a study by Stucki, (2016) found that human resource management helps to develop organizations to be highly effective. Developing and improving the skills of employees that are committed to enhancing competitive efficiency.

Moreover, human resource management is also related to organizational innovation as organizational innovation arises from the proper management of human resources through incentive methods to motivate employees to perform their tasks (Sherine and Moza, 2016). There are affected by the employees. Including stakeholders and other people involved in the organization that aid to reinvent the working model to focus on maximum efficiency (Shipton et al., 2017). Further, human resource management is related to knowledge management, allowing employees to know their own abilities. In addition, the organization knows the ability of each employee to reduce the risk in the operation. Therefore, the employees participating in various activities of the organization encourage employees to gain knowledge both in the present and in the long run. Thus, organization leaders and employees must have a good relationship with each other to create an exchange of knowledge during work.

As a result, the organization is efficient in terms of sales growth and profit, therefore knowledge management is a fundamental factor. The need to empower employees to make good decisions under different circumstances (Barhate, 2016).

The research hypothesis can be written as follows:

H1: Human resource management has a direct influence on organizational innovation.

H2: Human resource management has a direct influence on operational efficiency.

H3: Human resource management has a direct influence on knowledge management.

Organizational Innovation

Organizational innovation is an important part that will play a role in the organization's competitiveness because innovation creates creativity to develop the production process as well as to organize the organization into a new form. Therefore, the organization should continuously develop innovation in order to compete effectively in the business sector to the international level. Organizational innovations used for competitive advantage consist of product innovations. Types of innovation such as: Marketing innovation, process innovation, behavioral Innovation, strategic innovation, and technological innovation. As for the relationship between organizational innovation and operational efficiency, it was found that organizational innovation will increase productivity and increase the value of products and services effectively depending on organizational structure factors. With regards to, systematic learning and knowledge management, it was found that knowledge management can encourage personnel to create ideas for innovation, enabling the organization to acquire new products or improve the quality of products to be up-to-date, leading to the creation and development of the organization. For the Sherine and Moza study, (2016). Found that organizational innovation also determines the direction of competition that is important for the organization's success, therefore, the role of organizational innovation has resulted in the success of small organizations in sales, thereby having competitive advantages resulting in increased profits for the organization through the process of using knowledge and ideas to develop new things; not as a result of plagiarism or reproduction. In addition, organizational innovation is a key element that creates a competitive advantage and affects market share performance (Horsthuis, 2016) and can be used effectively even if certain organizations have cultural differences (Cavanagh et al., 2017). The context of organizational innovation is the key to developing an organization to progress and have economic growth, thereby being able to create quality people. Employees that have operational skills, have the ability to use technology, have problem- solving skills, have the ability to create a learning society, and produce works of creativity without imitation. In addition, organizational innovation helps to improve service quality for higher efficiency (Nazlina, 2016).

can be written as a research hypothesis as follows:

H4: Innovation capability directly influences operational efficiency.

Knowledge management

Knowledge management is the process of creating and collecting information. The information used to store may be obtained from books, textbooks, or experts as well as disseminating knowledge that is useful and necessary for the development and progress of the organization. This will result in the organization's ability to compete by the knowledge that is divided into 2 types: the knowledge that is a person arising from experience or ability to perform tasks or explicit knowledge: the knowledge that can be conveyed in the form of a manual or journal, or a combination of experience and previously collected information. In addition, knowledge management is a valuable asset to add value to the productivity of the organization. Therefore, knowledge management consists of developing knowledge to a higher level of knowledge gathering and knowledge transfer, in order to create and improve the infrastructure within the organization. By applying the knowledge gained from knowledge management to benefit (Malik and Garg, 2017). It was found that organizations with widespread knowledge dissemination had a positive impact on the success of financial organizations and an organization with a modern knowledge storage system will help the organization utilize the knowledge base efficiently and increase the competitiveness of the organization (Bhaskar and Mishra, 2017). Regarding the relationship between knowledge management and operational efficiency, it was found that important the relationship, allowed the organization to have good performance and create competitive advantages. Therefore, giving rise to a variety of resources and employees that have a high level of operational skills that contribute to the organization’s innovative capability (Zhang, 2016). Operational efficiency arises from knowledge management that is in the work process in every step of the process while working. Moreover, knowledge management is the pursuit of knowledge. Creating and transferring knowledge to groups of people to create added value for the organization as per the study of Jantarajaturapath et al. (2016) found that knowledge management is a component in determining organizational stability and that an organization with effective knowledge management will result in high operational potential.

Can be written as a research hypothesis as follows:

H5: Knowledge management has a direct influence on operational efficiency.

Operating Efficiency

Operational efficiency is the process by which an organization determines the direction and method of work to reach a predetermined goal. By assessing the internal and external environment that affects the organization in order to forecast future events. Organizational performance measures can be measured in many dimensions. There is no proper method. Therefore, it depends on the purpose to be used. The tools used to measure the effectiveness of the organization are: customer focus competitor focus, profitability, sales growth, and new product success for future profits and for the stability of the organization which will lead to competition, in order to create added value for target customers and to formulate strategies that have been widely used by both small and large organizations, including non-profit organizations (Boxall and Purcell, 2016). In addition, it was found that the criteria used to measure the effectiveness of the organization's performance should include: profitability, financial performance, and employee satisfaction within the organization (Choi et al., 2013). For Shipton et al., (2017), the way that organizational performance is effective is focused on performance. Emphasis has been put on learning to develop ideas and lead to organizational innovation and employees in the organization must learn together by being open-minded and thus the cooperation of people within the organization will result in the long-term growth of the organization which is considered better than giving orders and strict regimental policies for the employees to follow. Therefore, organizations must focus on enhancing learning efficiency, knowledge dissemination and thereby applying knowledge to encourage personnel to be involved in the continuous learning process even though they may differ in culture (Cavanagh et al., 2017).

Research conceptual framework

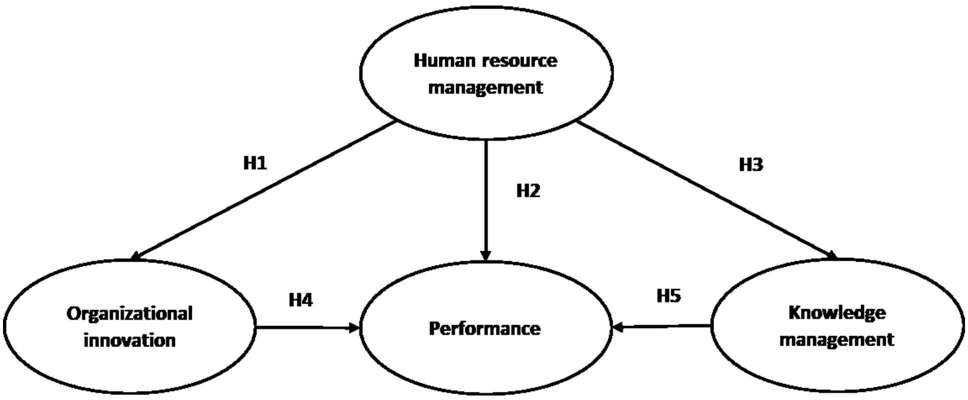

Figure 1 Research conceptual framework

Methodology

Population and sample

The population is the top executives of the automotive parts manufacturing industry of 618 companies (Thai Auto Parts Manufacturers Association, 2018). The sample group was 500 establishments.

Sample group: The sample size was determined using structural equation modeling analysis criteria. The sample size was defined and considered highly sufficient: 500 samples (Comrey and Lee, 1992)with the method of drawing (Probability Sampling)

Research tools

It is a general information questionnaire. The questionnaire was a 5-item checklist, and the questionnaire was a Rating Scale, which had criteria for giving the weight of the assessment into 5 levels according to the Likert method.) 100 items, consisting of 4 areas: human resource management, knowledge management, organizational innovation and operational efficiency.

Creating research tools

Study the principles of questionnaire construction in accordance with the research conceptual framework and study data from books, documents, articles and related research results. as a guideline to create questions and tool quality inspection consisted of 1) Content validity by 3 experts to determine IOC (Index of item objective congruence) The values were between 0.60-1.00 passed the benchmark and were of high accuracy (Rovinelli & Hambleton, 1997) 2). Reliability: A pre-Test of 30 questionnaires were used to determine Cronbach's alpha coefficient, the value was between 0.695-0.839, passed the standard criteria and had high confidence (Nunnally, 1978)

Statistics used in data analysis

Data analysis by statistics, mean, standard deviation. Structural equation model analysis (SEM) was analyzed by evaluating the consistency of all latent variables to have a value. Consistent with empirical data, all criteria were met, the evaluation criteria contain CMIN–p values greater than .05, CMIN/DF greater than 2, GFI greater than .90, RMSEA less than .08 (Arbuckle, 2012).

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Results

The results of the overall opinion analysis revealed that the value was at a high level. ($\overline{X}$ = 3.96, S.D = 0.55) When considering each side, sorted by average from highest to lowest. It was found that knowledge management had a high average of opinions. ($\overline{X}$ = 4.06, S.D = 0.86) followed by human resource management ($\overline{X}$ = 3.98, S.D = 0.71) operational efficiency ($\overline{X}$ = 3.93, S.D = 0.81) and organizational innovation ($\overline{X}$ = 3.91, S.D = 0.73) Able to summarize each aspect as shown in Table 1.

Table 1 Mean and Standard Deviation of Priority

	Overall analysis results	$\overline{X}$	**S.D.**	**Interpret**
1	Human resource management	3.98	0.71	High
2	Corporate innovation	3.91	0.73	High
3	Knowledge management	4.06	0.86	High
4	Operational efficiency	3.93	0.81	High
	Total	**3.96**	**0.55**	**High**

The results of the structural equation analysis consisted of knowledge management factors. The characteristics of entrepreneurs, innovation capability and the terms of competitive advantages, as shown in Figure 2.

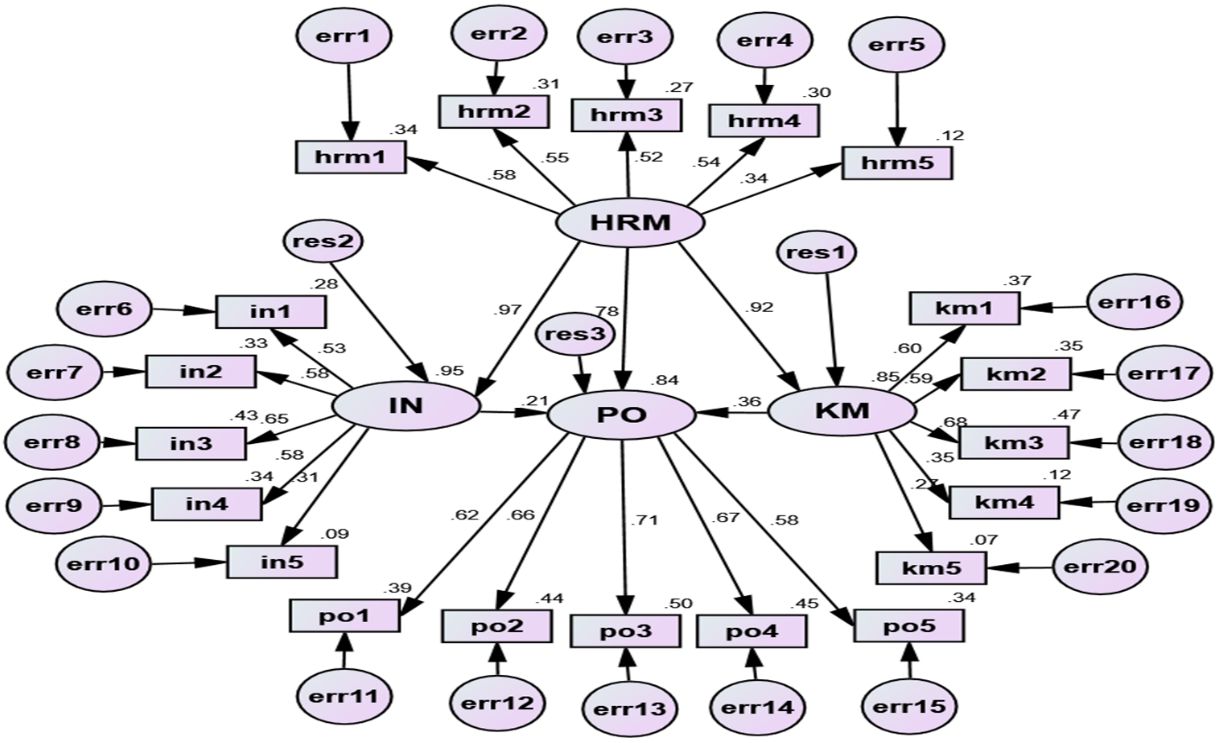

Figure 2 Structural equation model Human resource management style that influences efficiency Operations of the automotive parts manufacturing industry in Thailand

From Figure 2, the results of the structural equation model analysis. The results showed that the probability of chi-square (Chi-Square) was 0.080, correlation chi-square (CMIN/DF) was 1.420, the level of conformance index (GFI) was 0.969, and the mean square root index of estimation error (RMSEA) was 0.060. It was concluded that the surveyed model of the empirical data with the sample was consistent with the review data and passed the designated criteria.

Moreover, it was found that human resource management had a direct influence on organizational innovation (DE = 0.97), operational efficiency (DE = 0.78) and knowledge management (DE = 0.92) were statistically significant at the 0.001 level.
Further it was found that organizational innovation had a direct influence on operational efficiency (DE = 0.21) and knowledge management had a direct influence on operational efficiency (DE = 0.36) with statistical significance at the 0.001 level. The congruence of the model can be analyzed as shown in Table 2.

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Table 2 Regression Weights

Variables			Estimate	S.E.	C.R.	P	Standardized
KM	<---	HRM	1.232	0.143	8.615	***	.924
IN	<---	HRM	0.720	0.129	5.581	***	.970
PO	<---	IN	1.035	0.178	5.815	***	.211
PO	<---	KM	0.914	0.147	6.218	***	.364
PO	<---	HRM	0.920	0.166	5.542	***	.783
hrm 4	<---	HRM	1				.541
hrm 3	<---	HRM	0.978	0.139	7.036	***	.520
hrm 2	<---	HRM	1.179	0.140	8.550	***	.553
in4	<---	IN	1				.584
in3	<---	IN	1.227	0.123	9.976	***	.652
in2	<---	IN	1.141	0.125	9.128	***	.585
in1	<---	IN	1.073	0.117	9.171	***	.530
po5	<---	PO	1				.585
po4	<---	PO	1.173	0.132	8.886	***	.671
po3	<---	PO	1.222	0.126	9.698	***	.711
po2	<---	PO	1.248	0.230	5.426	***	.660
po1	<---	PO	1.055	0.189	5.582	***	.618
hrm 1	<---	HRM	1.204	0.136	8.853	***	.579
km1	<---	KM	1				.848
km2	<---	KM	1.556	0.251	6.199	***	.594
km3	<---	KM	1.183	0.123	9.618	***	.677
hrm 5	<---	HRM	1.460	0.147	9.932	***	.344
in5	<---	IN	0.787	0.146	5.390	***	.314
km4	<---	KM	0.788	0.130	6.062	***	.354
km5	<---	KM	0.803	0.114	7.044	***	.273

****P<0.001*

Research hypothesis

Table 3 Summary of hypothesis testing results

Research hypothesis	Hypothesis test results
H1: Human resource management has a direct influence on organizational innovation.	Influential
H2: Human resource management has a direct influence on operational efficiency.	Influential
H3: Human resource management has a direct influence on knowledge management.	Influential
H4: Organizational innovation has a direct influence on operational efficiency.	Influential
H5: Knowledge management has a direct influence on operational efficiency.	Influential

Discussions

1. Human resource management influences organizational innovation. Human resource management influences organizational innovation because the organization encourages employees to receive training from internal and external agencies to develop knowledge. Specialized skills in both aspects of theory and practices are developed through an appropriate course until the employees understand the work process well. This thereby enables the personnel to be creative in creating innovation and have the proper working methods between employers and employees or between employees and executives in order to create a good working atmosphere and to reduce conflicts that will affect the organization, the findings are consistent with a study by Farouk et al., (2016). It was found that human resource management can lead to innovation within the organization if it is applied appropriately, especially in terms of motivation, training, recruitment, and selection, as well as performance appraisal. As Kuo's Study (2011) The results of the research showed that human resource management resulted in organizational innovation because it caused personnel to learn. The ability to manage knowledge creates innovative ideas within the organization and leads to the development and optimization of the organization for the study Nazlina (2016) found that human resource management in communication and sharing information, compensation, evaluation, selection, training, and development are essential for organizational innovation. In addition, innovation processes are widely used in organizations to be successful as well as build good relationships with personnel. This will result in the appropriate use of human resource potential in the organization to achieve its objectives (Trajkovski, 2018).

2. Human resource management influences knowledge management. Human resource management influences knowledge management. Because knowledge management is the process of collecting information and distributing knowledge within the organization for personnel to use widely and widely. As with the automotive industry, knowledge management processes and design work practices are correct and appropriate to find ways to improve operations to keep up-to-date. The knowledge is applied in solving work-related problems. This is consistent with the study by Sohrabi and Naghavi (2015). It was found that human resource management plays an important role in knowledge transfer because knowledge is a valuable asset that organizations use as a strategy to create competitive advantages. In addition, the knowledge contained in the personnel will be fully utilized only when the organization has effective internal human resource management, flexible, modern, and systematic management. In the study of Sanchez, Marin, and Morales (2015) it was found that operation effectiveness resulted from the selection of personnel to undergo intensive training until they were familiar with the operating procedures. Furthermore, the organization has an evaluation of the performance of sending personnel to comprehensive training supported by the organization this thereby will help improve the organization's personnel to have knowledge and efficiency to perform better. To allow the employees to have the ability to use a variety of technologies and be innovative in decision-making and assist in production planning. Finally, to create added value for the organization. (Sawangrat,2020)

3. Human resource management influences operational efficiency. Human resource management influences operational efficiency because human resource management encourages personnel to gain knowledge in order to achieve an appropriate operational style. From the study, it was found that the human resource management of different organizations resulted in the employees in the organization being learned about the different operations as well. This is consistent with research by Wang et al., (2012). It was found that human resource management starting from recruitment, selection, development, training, performance appraisal, salary, and compensation motivates personnel to perform at their full potential, leading to higher organizational performance. It also helps develop operational skills to be effective and widely applicable to both small and large organizations (Stanton et al., 2014) and non-profit organizations (Boxall and Purcell, 2016). Hamza (2016) found that the policy of human resource management is related to the performance of the organization because human resource management is part of helping to develop personnel in the organization to be able to work as well as At same time, motivation is a process that supports all the activities of personnel that are critical to operational efficiency and that a well-motivated organization increases the likelihood of an organization's success up (Girniene and Atkociuniene, 2015).

4. Organizational innovation influences operational efficiency. Organizational innovation influences operational efficiency as people exchange experience gained from their operations in order to come up with new ways of working, this is appropriate as the personnel accepts the transformation of old ideas into new ideas that can be applied to work for maximum efficiency and better the communication skills of the organization itself. Developing communication skills will have a positive impact on effective feedback. In addition, the organization has promoted and encouraged the learning of new things in order to create creativity and innovation suitable for work operations. An organization will focus on operations such as learning to develop ideas that may ultimately lead to organizational innovation (Shipton et al., 2017). Organizational innovation has a direct influence on operational efficiency because organizational innovation demands the employees to learn from the acquisition of internal and external market data and innovation also determines the key competitive direction. Therefore, it is essential to enable innovation to influence the operational efficiency of the organization. Sherine Farouk et al., (2016) In addition, organizational innovation improves the quality of service (Nazlina, 2016), as well as Kumar's (2010) study, looked at the similarities and differences in strategizing models of innovation while the results showed that the implementation of innovations made the organization more efficient and effective which is similar to the findings from the research of Mohamm and Hinson (2012), which states that innovation is very important for the survival of the organization because it helps the organization to harvest new methods in order to manage and differentiate products and services (Gonzalez and Andrade, 2011).

5. Knowledge management affects operational efficiency. Knowledge management influences operational efficiency because an organization has a knowledge management process and a clear operational plan. To make the organization’s management run smoothly and efficiently it is important to clearly specify the duties and responsibilities of the personnel as appropriate according to their knowledge, competence, and operational skills. Furthermore, to verify the accuracy of the information that may be recycled and reused. In addition, personnel should be involved in the knowledge management processes and aid in the design of work practices that are appropriate to the organization. To further ensure that there is a technique for controlling and coordinating work within the organization that is systematic. The personnel have to find ways to improve operations to be always up-to-date, this is consistent with a study by Wang et al., (2012) found that the wages of employees in organizations largely depend on their learning ability this is because important knowledge gained by the employees is efficiently used within the organization, therefore the organization further motivates and encourages knowledge acquisition and knowledge sharing among employees within the organization. Thus, knowledge management is a process of working in different stages. In addition, Jantarajaturapath et al., (2016) found that knowledge management is a component in determining the stability of organizations, and organizations that have effective knowledge management will result in higher operational potential. Therefore, organizations with intelligent, idealistic leaders avoid the use of power and have the ability to inspire make an organization that yields employee morale and work efficiency (Sawangrat, 2020).

Conclusion and suggestions

1. Recommendations from research

1.1 Human resource management From the results of the study, it was found that human resource management influences operational efficiency, the organization must focus on the selection of personnel using moral and ethical criteria. Integrity and responsibility are the criteria for selecting personnel into the organization because personnel who have such characteristics will have a high ability to work. Further, have the ability to effectively take responsibility for important matters In addition, the organization must consider the personality of themselves and the personnel, in order to create a good image for the organization. Therefore, in order to increase operational efficiency, organizations should consider Human resource management added 3 aspects, namely 1) morality, 2) responsibility, and 3) personality, to strengthen the internal organization.

1.2 Organizational innovation From the study, it was found that operational efficiency arises from the organization's focus on organizational innovation, which is the key to organizational advancement and economic growth to create quality people. An organization with operational skills-, has the ability to use technology, have problem- solving skills and the ability to create a learning society, and has creative ideas consisting of originality. Innovation in the organization arises from the organization's management process in order to change the behavior within the organization to be ready for global competition. Therefore, organizations should consider factors of organizational innovation in 3 additional areas: 1) change the thinking process 2) change the working process, and 3) change the production process. to increase operational efficiency for the organization

1.3 Knowledge Management From the results of the study, it was found that effective knowledge management can result in good organizational performance, the organization must combine the knowledge that is scattered within the organization to be stored within a centralized system. To provide everyone in the organization with access to specific, principled, rational, and credible sources of knowledge to support operational decision-making and in addition to being used for personnel development and organizational development. Encourage personnel with the knowledge and the ability to apply their knowledge to add value and income to the organization. As a result, the organization has the ability to compete, enhance the ability to make decisions, and plan operations, including working efficiently. Therefore, in order to increase operational efficiency, the organization should consider 4 additional knowledge management factors, namely 1) knowledge-gathering 2) knowledge development 3) new knowledge creation, and 4.) applying knowledge wisely. Therefore, this will result in the organization having the highest competitiveness.

1.4 Operational efficiency From the results of the study, it was found that the criteria used to measure the success of the organization's operational efficiency. In addition to human resource management, organizational innovation, and knowledge management. Organizations must focus on operational efficiency in four additional areas: 1) setting the quality standards of the completed work 2) measuring the error of employees in the performance 3) measuring the efficiency of the work performed. Use appropriate and cost-effective resources, and 4) measure the efficiency of the speed in completing the tasks in time. Such components will result in the organization meeting its operational goals. The organization will be able to achieve its human resource development goals and achieve organizational development goals to move towards a learning organization and in turn the application in the operations to achieve efficiency.

2. Suggestions for next research

2.1 Following the points mentioned in this research to further study the factors affecting the efficiency of operations. To support operations in accordance with the vision and organizational development towards sustainability and should apply the conceptual framework from this research to study with other industry groups to obtain guidelines for organizational development and personnel development to test the potential and the efficiency of these highlighted factors. Study the readiness to adapt and the evolution towards the future that will lead to operational efficiency.

2.2 The Ministry of Industry and educational institutions should play a role in promoting knowledge for the automotive industry operators by focusing on 4 main areas, namely human resource management, knowledge management, organizational innovation, and operational efficiency for the production process to be accurate, effective, well-paced and consistent with the needs of current and future target markets and develop the organization to be a highly efficient organization. Thereby the involvement of governmental entities-, may play a role in a standardized production process that is profitable and capable of sustainability.

New knowledge and the effects on society and communities

It was found that the factors directly influencing operational efficiency were human resource management, organizational innovation, and knowledge management. These factors are important tools that help increase operational efficiency and create sustainable competitive advantages for the automotive parts manufacturing industry in Thailand.

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Study on Territorial Politics and Political Identity Transmission Interaction: An Case of Kuomintang in Northern Thailand (1949-1975)

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Abstract

This paper attempts to explain the dynamic process of the relationship between geopolitics and transnational political identity communication during the Cold War, and takes the Kuomintang army in northern Thailand as a classic case for analysis. During the Cold War, different political forces played games with each other, which jointly promoted the formation of different identities of the Kuomintang army in northern Thailand. All political forces, whether out of strategic considerations or security considerations, have caused the "alienation" of northern Thailand. The connotation of Cold War "alienation" is the formation of a "multi hierarchical system" in northern Thailand. This further led to the "diversification" of the political identity of the Kuomintang troops living here. The linkage between region and identity has led to different interactions among units at all levels in the international system.

Keywords: Cold war structure, Southeast Asia geopolitics, Northern Thailand Kuomintang army, Political identity, Identity interaction

Introduction

In modern international relations, regional order and individuals often interact. Generally speaking, regions contain not only geopolitics but also geographical environments created by various factors. Individuals will evolve effective survival strategies to adapt to complex geographical environments. Although the survival strategies are very diverse, they still cannot be separated from the change of the dimension of global - national - geographical - individual. In the process of nation state construction, a country's sovereignty is accompanied by a monopoly on the territorial order. However, when we examine the practice of nation states, we always find the gap between theory and practice. In the non western world, the boundaries of many countries have great "flexibility", which is not shown in the theory of western nation-state. Therefore, in the process of constructing non western countries, we must re-examine a series of concepts such as "sovereignty", "territory" and "state". Based on this, this paper will start from northern Thailand to explain the special situation of "multiple governance" of "sovereignty" and "territory" of non western countries after World War II. Due to the interaction between the cold war structure and the state construction, the phenomenon of "multiple governance" in northern Thailand emerged during the cold war. At the same time, the "multiple governance" was intertwined with the local Kuomintang military identity, which made northern Thailand form an actual "multiple hierarchy system". Therefore, we should first briefly explain the particularity of Northern Thailand.

As far as Thailand is concerned, "power vacuum" has often occurred in northern Thailand since modern times. Since 1558, when Lanna King of northern Thailand was subordinate to the Dongyu Dynasty of Myanmar, this place has been playing the role of Myanmar vassal state. In the 18th century, in order to resist the rule of Myanmar, Lanna chose to ally with the central Thai people, and the Lanna Kingdom chose to become a vassal state of Thailand. However, the situation in Southeast Asia changed in the middle of the 19th century. The signing of the Pauling Treaty and the Chiang Mai Treaty with Thailand enabled Britain to set foot in northern Thailand. Therefore, Thailand gradually cancelled the vassal state type of the Lanna Kingdom in northern Thailand and began to include the Lanna Kingdom in its territory (Saishaw, 2002).

Since 1897, the Bangkok Dynasty has stipulated that Chiang Mai rulers need to be granted titles. At the same time, the Bangkok Dynasty also required people to pay more taxes to consolidate the local rule, and turned many private land into public land. However, most of these measures cannot be implemented due to the overlapping mountains. After being included in the territory, the particularity of northern Thailand has not disappeared. At the beginning of the 20th century, Thailand's management of this area still focused on the task of regaining authority and educating local people, but there were still many local incidents against the central rule. For example, from 1908 to 1936, the local influential eminent monk Xiweicai rebelled against the authority of the government by resisting the Sinhala Law promulgated by the central government (Gong, 2019). It can be said that Northern Thailand, a special geographical region, has a relatively independent position for a long time.

After the end of World War II, the war between the Kuomintang and the Communist Party broke out in an all-round way. After five years of civil war, the Communist Party of China finally won and established New China. After the liberation of Yunnan by the People's Republic of China in the 1950s, many groups of Kuomintang troops kept fighting with the People's Republic of China from Yunnan, China, and retreating to the Sino Myanmar border of Myanmar. In the late 1960s, these talents gradually migrated to northern Thailand and settled down. During their migration, they continued to intermarry with ethnic minorities in Southeast Asia, but still maintained their own Chinese identity. After negotiations between Taiwan and Thailand in the 1970s, their identity came to a conclusion. It can be said that identity (political and cultural), as a tool for them to play games with the region, is protected by the Cold War structure, which allows them to stay locally to carry out political contacts with the Taiwan authorities and curb the expansion of communism in Southeast Asia; On the other hand, they were excluded from the mainstream by the pressure of the construction of the Thai nation-state, resulting in a special field and identity in northern Thailand. Although Thailand was open to naturalization during the Cold War, the Thai government mainly recognized its identity as a "Chinese refugee", while the Taiwan authorities gave the Northern Thai Nationalist Army the status of "overseas Chinese".At present, there is less research involved, but it is the focus of this paper.

Objective

1. To examine why can the Kuomintang army in northern Thailand continue to be stationed in northern Thailand
2. Explain "How does the particularity of northern Thailand shape its (ethnic) identity"
3. Explain "How does the particularity of (ethnic) identity feed back to the particularity of northern Thailand"

Literature review

The research object of this paper is "Northern Thailand Kuomintang Army". Its ethnic group predecessor is the Kuomintang army that retreated from Yunnan Province of China to Southeast Asia. Due to the outbreak of the Cold War, after the Kuomintang army migrated to Southeast Asia because its region is close to the mountain races, the army has gradually been influenced by the mountain races in terms of culture and living habits and began to have the habit of keeping the away from political forces. In addition, after entering Southeast Asia, this group of Kuomintang troops maintained identity contact with Taiwan (ROC), Thailand, and the United States. On the one hand, they also kept a distance from the three parties, so that they could obtain legitimacy of settlement in northern Thailand to a certain extent. They spread their political identity through contact with the three forces, to achieve the effect of "pressure".

Entering the Cold War period, northern Thailand was always a part of geopolitics and served the task of the Cold War grand strategy. However, examining the current study of Cold War geopolitics, scholars still focus on the field of geopolitics. The field can be divided into two groups: peaceful geopolitics focused on the global coalition. For example, the representative of American idealism (Emund Walsh) believes that international organizations can serve as a link between the united tropical nations and the temperate nations, the eastern and western oceans, to achieve the state of the global federation. The other group, Kissinger and Yves Lakoste (etc.), emerges from the main perspective of realism and combines geopolitics with US foreign policy to contribute to US foreign strategy. In the 1970s, the American political scientist Cohen S.B. Put forward the strategic model, and divided the world into Marine trade zone and Eurasian continent zone, combing the strategic objectives of the United States. However, how does geopolitics affect the behavior of the state and the non-state units? Even prompting habitual behavior changes in national and non-national units? There is still a lack of research to analyze the relevant causal mechanisms. (Huang, 2018)

In the study of the political identity of the Kuomintang in northern Thailand, because this paper does not discuss the integration of the Kuomintang army in northern Thailand and only focuses on the local society of the political identity during the Cold War, the previous research only focused on the social integration of the Kuomintang Army in northern Thailand and its descendants do not belong to the scope of this paper. Scholar Gao Weijun tried to analyze the change of ideological identity of the Chinese people in northern Thailand by using the identity theory. Through field observation and data analysis, Gao Weijun pointed out that, with the changes in history, the positioning of Taiwan（ROC）'s political identity has been changed from "central government" to "foreign government". However, the Taiwan（ROC） "Republic of China" identity of the Kuomintang army in northern Thailand has changed from "I" to "the other", but Taiwan（ROC）, China still provides hardware facilities to deepen the identity of the Kuomintang army in northern Thailand to Taiwan（ROC）. Secondly, from the perspective of the political framework, Wenqin Zhang （张雯勤）analyzed through long-term in-depth interviews how the Chinese people in northern Thailand were affected by various political situations in the process of migration, so they developed complex settlement and migration modes. Wenqin Zhang believes that the Kuomintang army in northern Thailand is not forced to migrate, but has its motivation. Under the leadership of the soldiers, they walk in complex international relations and seek their best interests, before choosing to hide their identity to enhance their social and economic status after settling down. (Gao, W, 2012) In addition, in terms of identity, Zhang Wenqin believes that the Kuomintang army in northern Thailand has a special group and a historical history, so when they declare that their identity is wandering between the Han people and Yunnan people. In the internal declaration, the Yunnan people to distinguish different from the general Han people. (Chang, 2008)

Xie Shizhong(谢世忠) discussed the military behavior of the 93rd Division of the 26th Army of the Kuomintang army in different political entities, including mainland China, Taiwan（ROC）, Myanmar, Thailand, etc., explaining how the national identity of these Chinese was from constructed to abandoned. In addition, Xie Shizhong used Charles Case's (Charles F. Keyes) nation-state theory, demonstrating the purpose of the state to construct a political community through the culture manipulated by the regime. (ShizhongX,2004)On the other hand, Po-Yi Hung and chunyi Xu （洪伯邑、许纯镒）took the politics and economy as the center and applied the sociological theory and fieldwork to discuss the integration of the Kuomintang army in northern Thailand. Hong Boyi and Xu Junyi believed that through the cultivation of tea, the Kuomintang army in northern Thailand could be politically stable, and appeared decentralized and liberalized in the economy. The interweaving of these two forces makes the Chinese people in northern Thailand and tea and others have different identity meanings in different fields. (Po-Yi,H, 2022)

Yihui Qin（覃怡辉）, a scholar, analyzed the identity of the former Chinese people in northern Thailand as the center and discussed the war between the Kuomintang and the Communist Party in the Golden Triangle region from the perspective of military history. Qin Yihui used the rich historical materials of Taiwan（ROC） officials and some materials of American foreign aid to explain the complex international relations and power changes of the Golden Triangle. (Qin, 2009) Tingxian He (何庭仙) discussed the statelessness and social relations of the Chinese people in northern Thailand in detail using field investigation and interview. (He, 2014) Tingxian He believes that the current Thai government's statelessness problem for the Chinese in North Thailand is mainly the lack of unity of naturalization policy and implementation, which makes the nationality issue become a pipeline of exploitation. In addition, the issue of nationality also causes discrimination and restrictions in Thai society, but it does not hinder the trend of double identification of the Kuomintang army in northern Thailand. Bian xinyu (边沁宇), from the perspective of the space and time of the Cold War and the background of the Golden Triangle society, analyzes the internal motivation of the Kuomintang army in northern Thailand to establish, manage and maintain a strong identity. Bian believed that through the "anti-communist" support of the Kuomintang army, the local army and the people could survive under their wings, integrating the nature of the army and the villagers, which are mutually beneficial and complement each other. (Bian, 2014)

ScholarsXiangyi Li（黎相宜）, Jinpeng Zhang (张锦鹏), and other scholars analyzed the identity changes of the Kuomintang army in northern Thailand based on the national effect theory. They believed that they had an efficient initiative in the identity of the Kuomintang army in northern Thailand, and believed that most mountain ethnic groups in the mountainous areas of Southeast Asia have such characteristics.（Li, 2019; Zhang, 2014）Several scholars have great reference significance for this paper, but this judgment lacks the investigation of the transnational influence of the Kuomintang army in the north of Thailand. The Kuomintang army in northern Thailand not only participated in the construction of the country to escape the political forces, especially during the Cold War, when the Kuomintang army in North Thailand was occupied in the mountains of Southeast Asia (Zombia), using the us-Thailand-Taiwan (ROC) strategic conception to survive here reasonably.

Therefore, this paper focuses on how the particularity of northern Thailand causes the particularity of identity recognition of ethnic groups including Kuomintang troops in northern Thailand. How did this particularity lead them to develop diplomatic means using identity as a tool of pressure?

Research Hypothesis

We attempts to supplement the network theory of transnational initiatives, and selected cases to fill this gap. At the same time, this paper also tries to reveal the interaction law between non-state actors and political forces during the Cold War. The political identity communication of the Kuomintang army in northern Thailand includes both the influence of geo culture and the factors of transnational communication. To sum up, the State effect theory and the transnational initiative network theory only explain some facts, so we need to make more detailed tracking in the causal mechanism.

1. Due to the location of the ethnic culture diversity and the importance of the multinational border, make us, Taiwan (ROC), and Thailand are trying to use the north Kuomintang army as maintaining their weapons, thus prompted the Thai north Kuomintang army to political identity as a tool.

2. The United States, Thailand and Taiwan (ROC) correspond to the international system, regional system, and cross-regional system, the political identity dissemination of the Kuomintang Army in northern Thailand is to interact with different identities at different levels.

3. In the international system, the United States gave it an "anti-communist vanguard" political identity, and they demanded the legitimacy of the survival of northern Thailand. In the regional system, Thailand gave it a "Chinese refugee" status, and they asked the Thai government to be stationed in northern Thailand. In the trans-regional system, Taiwan (ROC) authorities gave them the identity of "counterattack against the mainland".These political identities formed a political communication cycle centered on the Kuomintang army in northern Thailand.

4. Because the cold War structure restricts the international system to restrict regional and cross-regional systems, there is a process of mutual pressure between them.

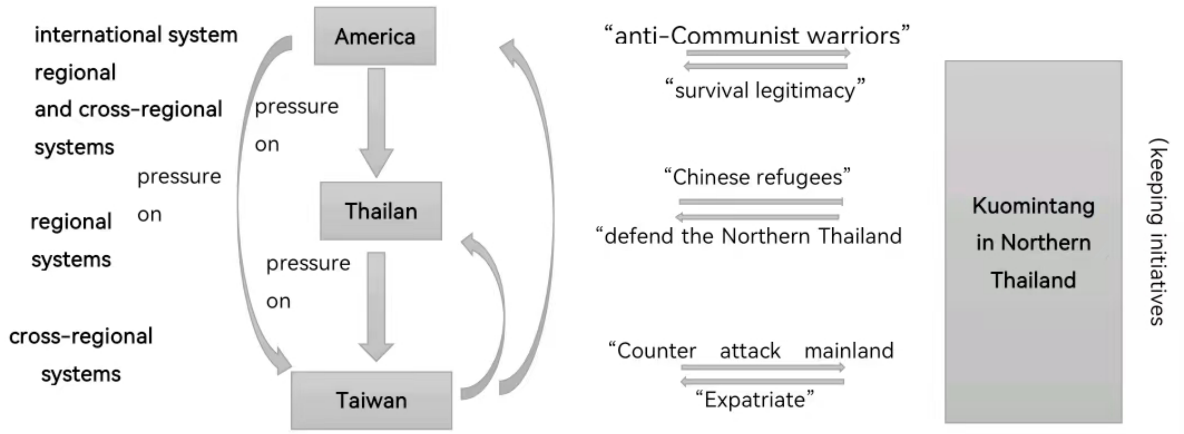

Figure 1 Conceptual diagram of analysis architecture (self drawn by the author)

Methodology

This paper uses the process tracking method to try to find the causal mechanism within the case of the identity change of the Kuomintang army in northern Thailand. The process tracks have four tests at the operational level, nominally, case selection, tracking mechanism, situation conditions, and evidence testing The four tests point to the same purpose: on the one hand, explain the changes in specific cases on a case by case basis, and on the other hand, leave enough room for generalization and application of the refined causal hypothesis.

1. Tracking the political identity transmission path of the Kuomintang army in northern Thailand.
2. The interaction between the Kuomintang army in northern Thailand and various political forces when testing the political identity of communication.
3. Tracking the strategy of Kuomintang troops in northern Thailand to settle in northern Thailand by using the tools of different political identities.

Results

1) 1950-1965

In order to stop communism and win the Cold War, the United States began to control the northern Thailand region close to the socialist countries in the international system, and pressed the Thai government to use this region as an "anti communist bridgehead", thus including Thailand and Taipei, and in the regional and trans regional system level, it beat the Kuomintang forces in northern Thailand to become "anti communist vanguard", Thailand and Taipei have formed sub issues of "garrison in northern Thailand" and "counter attack on the mainland" respectively. For example, the CIA asked Thailand to recognize the power of Vietnam, and supported the Kuomintang troops to invade China's Yunnan Province in the

1950s (Zawach & Yang, 2019). At the same time, the United States will try to bind the whole East Asia with Southeast Asia at the beginning of the Cold War, forming the external pressure shaping Southeast Asia. In April 1954, Eisenhower put forward the "domino" theory, and the United States strengthened its involvement in Indochina affairs.

Secondly, in terms of regional system, with the outbreak of the Cold War, Northern Thailand has become the interface of the dual opposition of the international community and a leading country under the confrontation between the capitalist camp and the socialist camp. In order to promote the process of Thailand's modernization, Thailand began to pay attention to the border mountainous ethnic groups. The cultural diversity and mobility inertia of mountain ethnic groups indicate that the imagined and homogeneous Thai national community has not yet been completed. Therefore, the concept of national nationality must enter the daily life of mountain nationalities, so that they can no longer maintain the non national characteristics of the past. The Thai government takes the concept of natural conservation and economic development as a tool for national modernization and national modernization, and gradually brings mountains under the management of the national system.

After the end of World War II, as Southeast Asian countries tried hard to break away from the control of the colonial home country, national consciousness and communism spread rapidly in Southeast Asia, which further contributed to the co functioning of the original northern Thai culture and the international system - regional system - trans regional system, shaping the special "geopolitics" of northern Thailand. After the New People's Liberation Army defeated the Kuomintang in January 1950, the last two Kuomintang troops on the mainland of China began to flee. Li Guohui, the head of the 79th Regiment of the 8th Army, led the crowd to the border between Yunnan and Myanmar, and joined the 278th Regiment of the 93rd Division of the 26th Army led by Tan Zhong. This group of soldiers and civilians established the "Yunnan Anti Communist and National Salvation Army" in Monza in 1951, with Li Mi as the commander in chief and recruited more than 20000 people locally (Zawach & Yang, 2019).

In 1952, the Myanmar People's Peace Front, the Patriotic Party, the Burmese People's Party and others held a "Committee for Expelling Kuomintang Troops against Invasion" in Yangon, demanding that the Kuomintang withdraw its troops. Faced with the pressure from Myanmar and the international community, the Taiwan authorities had to launch the first Taiwan withdrawal plan (Lin, 2017a). In August 1952, the "Yunnan Anti Communist and National Salvation Army" sent about 700 personnel to the south of Myanmar, which caused the dissatisfaction of the Myanmar government. The Myanmar side believed that the Kuomintang army, which was then the representative of China, violated Myanmar's sovereignty. With the help of the former Soviet Union and New China, he formally filed a complaint with the United Nations in 1953, exposed various acts of Kuomintang troops violating Myanmar's sovereignty and provided the United Nations with a large amount of evidence. Finally, the United Nations ruled that the Kuomintang troops were "aggressors" and demanded Li Mi's troops to withdraw immediately.

In May 1953, representatives from the Taiwan authorities, Thailand, Myanmar and the United States set up a "supervision committee" to demand the withdrawal of the Kuomintang troops in Myanmar. At that time, Liu Yuanlin, the commander in chief, asked the Taiwan authorities for instructions and made two suggestions: first, he submitted to the United Nations the number of evacuees to be evacuated; second, he did not withdraw any personnel from Taiwan, but instead belonged to the intelligence agency, and continued to "counter attack the mainland" in the form of civil society to avoid international concern. This was adopted by Chiang Kai shek, From November 1953 to March 1954, the Kuomintang troops stationed in Myanmar withdrew to Taiwan in three batches (Luo & Luo, 2020).In July 1954, Chiang Kai shek secretly summoned Liu Yuanlin, Instruct to reorganize the remaining Myanmar troops into "Yunnan People's Anti Communist Volunteers" (Deng, 2009; Fineman, 1997; Jiang, 2020).

After returning to Myanmar, Liu Yuanlin reorganized the volunteer army into three armies. Soon there was an "823 Artillery Battle" on both sides of the Taiwan Straits. On the one hand, the KMT troops delayed Myanmar to attack the Yunnan border of new China, on the other hand, they fought with the Communist Party of Myanmar and expanded into five armies again in 1959, which again aroused international attention and also led to the incident of "the second withdrawal of the KMT troops". In 1960, the Chinese People's Liberation Army and the Myanmar Government jointly sent about 60000 troops to encircle and suppress the Kuomintang troops in Myanmar. After three months of fierce fighting, both sides suffered heavy casualties. The "Yunnan People's Anti Communist Volunteer Army" withdrew to Laos, leaving a small number of troops to remain in the mountains of Myanmar. Myanmar once again complained to the international community that the Kuomintang troops had invaded the territory of other countries. In order to avoid diplomatic disputes, the Taiwan authorities decided to withdraw the Lao troops to Taiwan, China, in December 1961.

The second withdrawal was carried out from March to April 1961, with a total of 4400 troops evacuated to Taiwan. However, tens of thousands of troops stationed in Myanmar have not withdrawn. Therefore, this group of troops became the focus of the international community for three times in 1961. This also forced the Taiwan authorities to carry out the third withdrawal plan. The First, Second and Fourth Armies all withdrew to Taiwan, China. Some of the Third and Fifth Armies were reluctant to go to Taiwan because their hometown was on the Yunnan Myanmar border, while some were unable to go to Taiwan because of mission needs (hereinafter referred to as the Third and Fifth Armies). Li Wenhuan and Duan Xiwen, leaders of the 3rd and 5th Armies in northern Thailand, respectively chose Tangwo in Chiang Mai Province and Maestro in Chiang Rai Province as their headquarters.

To sum up, the original geopolitics in the mountains of Southeast Asia has a highly mobile and loose structure. With the outbreak of the Cold War, the geopolitics and the international system - regional system - trans regional system have played a role, thus transforming the geopolitics in northern Thailand. The mobility of Northern Thailand has integrated the political nature of international system - regional system - trans regional system, forming the geopolitical "pluralism" of Northern Thailand during the Cold War. In short, "multi center geopolitics" tries to make Northern Thailand have the attributes of "fixed" and "diversified" at the same time, which is consistent with the assumption of this article.

At the international system level, with the intensification of the Cold War, the United States began to fully enter Southeast Asia, in order to maintain its influence and reduce the burden of moving South Asia. The United States began to discuss with the Thai and Taiwan authorities in order to effectively use the particularity of northern Thailand to participate in the confrontation in Southeast Asia. From the 1960s to the 1970s, the United States secretly trained troops at the Thai border to support the Vietnam War. At the same time, after the signing of the Treaty on Friendly Economic Relations between the United States and Thailand, Economic assistance to Thailand reached the peak of US $60 million (Dai, 2020; Shi, 2012).The United States also negotiated with the local Kuomintang army and agreed to give it a subsidy of 75000 US dollars per month after the meeting and submit the Report on the Work Results of Entering Yunnan to the Taiwan authorities of China on the same day (*Political Warfare: Historical Inheritance and Change*, 2022; Zhang, 2016).The Kuomintang army used the resources given by the US military to act as the international "anti communist" force of the US military in northern Thailand (Tan, 1984).

At the regional level, the Thai government, in order to coordinate with the U.S. strategy and for the security of its own border, also militarized northern Thailand in northern Thailand, calling the Kuomintang troops here "the security forces to suppress the rebellion in northern Thailand "(Deng, 2009), At the same time, they tried to restrict their activities in northern Thailand and imposed many restrictions on their identity. The Thai government distinguishes their identities into three categories; The first "Chinese army" (the former Kuomintang army) (Zhao, 2015).

Second, Chin Ho op pa yop entered Thailand from 1954 to 1961, mainly Chinese and their families who migrated to northern Thailand from 1954 to 1961; Third, Chin Ho Is sa ra entered northern Thailand from 1962 to 1989(He, 2014). The Thai government was very worried that those undeveloped poor and backward areas would become breeding grounds for communist forces, so in 1965 Thailand established the "Communist Suppression Operation Command". This move was also associated with the better treatment of the embassy of the Taiwan authorities at that time, and to some extent acquiesced in the existence of the Kuomintang army in northern Thailand (Zawach & Yang, 2019). At the cross regional level, the Taiwan authorities tried to reorganize the Kuomintang army in northern Thailand in order to implement the plan of "counter attacking the mainland". However, the leaders of the Northern Thai Kuomintang army were unwilling to hand over military power and accused the Taiwan authorities of not giving appropriate subsidies, while the Taiwan authorities accused the Northern Thai army of drug trafficking. Finally, in September 1969, the Taiwan authorities said that they would not consider the private debt of the Northern Thai Kuomintang army.

Despite this, the Taiwan authorities still try to influence the northern part of Thailand to further "alienate" the region.

In addition, the Taiwan authorities used the troops that had fled from the mainland to Southeast Asian countries to launch an actual "anti communist alliance" with the United States, while northern Thailand, as the forefront of the "counter offensive against the mainland", shouldered multiple political significance, so northern Thailand actually became the center of the "multiple hierarchy". With the increase of "alienation" in northern Thailand, the Kuomintang troops in northern Thailand began to use their special identity to wander among the United States, Thailand and Taiwan authorities in order to gain benefits in northern Thailand. In the face of orders from the United States and TaiwanFfigure authorities, they obtained the legitimacy of the United States and Taiwan as "anti communist". It can be seen that with the intensification of the Cold War in Southeast Asia and the "alienation" of various political forces in northern Thailand, the Kuomintang troops here have made use of this special regional state to wander in the United States, Thailand and Taiwan.

During the period from 1950 to 1965, the political identity of the Kuomintang army in northern Thailand was mainly transmitted through pressure on the Taiwan authorities. Taiwan used its political identity to feedback to the United States, and the United States put pressure on Thailand. The particularities of northern Thailand and the attention paid by the United States to the Taiwan authorities shaped the special phenomenon of the spread of political identity during this period.

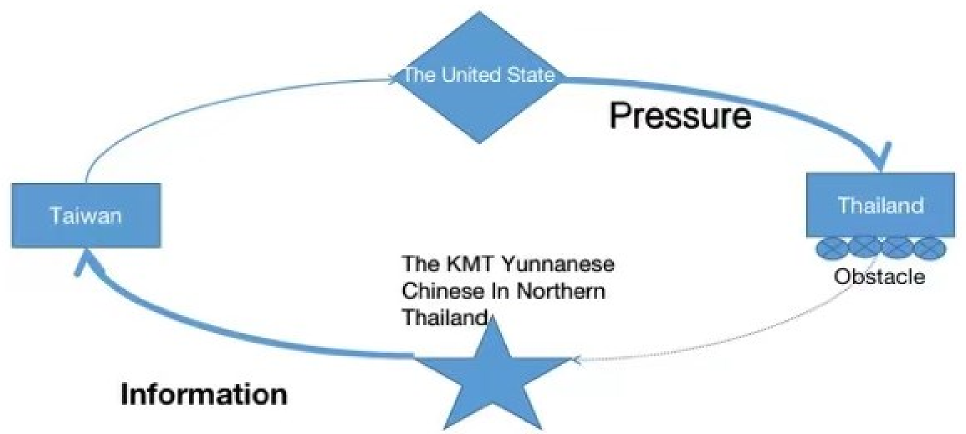

Figure 2 The path of political identity transmission from 1950 to 1965

2) After 1965

First, the United States began to fully intervene in the Vietnam War from the middle and late 1960s to the early 1970s. The United States continued to support the Kuomintang army in order to make its intervention in Southeast Asia more freely, but its recognition of refugee status remained unchanged. However, at this time, the conflict between the Third Army and the Fifth Army and Kunsha, the leader of the Shan Self Defense Force in Myanmar, resulted in a hostile relationship between the United States and Myanmar. Therefore, the United States pressed the Taiwan authorities to withdraw the Third Army and the Fifth Army from Taiwan or completely control them. However, this is contrary to the goal of the Taiwan authorities to "counter attack the mainland". Taiwan claims that it does not want to disarm, so it continues to claim that these troops are "armed refugees" and cannot be managed. The US government does not want to be constrained by the Taiwan authorities in foreign policy, so it forces the Taiwan authorities and Thailand to jointly dispose of these troops, thus forcing the Thai government to start negotiations with the Third and Fifth Armies and the Taiwan authorities (Kaufman, 2001)

The attitude of the United States changed the identification of this group of people by the Taiwan authorities, so they turned to support the Kuomintang's other local secret service organizations and stopped providing resources to the Third and Fifth Armies. In 1965, Kunsha fought with Li and Duan for opium, causing heavy casualties and returning Kunsha to Myanmar. The Myanmar government then completely captured the power of Kunsha (Kessaraporn, 2014; Xu, 1984). This campaign has attracted international attention again. The Thai government has brought the troops of the Thai Myanmar Kuomintang under its jurisdiction and started to discuss relevant matters with the Taiwan authorities. In 1964, the Taiwan authorities issued a statement against the "anti Communist" forces on the Thai Myanmar Laos border: the irregular "anti Communist" forces of China on the Thai Myanmar Laos border were regarded as armed refugees rather than organized forces.

In 1966, Chiang Kai shek summoned Duan Xiwen to understand the situation in the border area and ordered Taiwan's "Ministry of National Defense" to form a review team to inspect northern Thailand for decision-making. In 1968, Thailand, on behalf of Deputy Prime Minister Tawai, negotiated with Duan Xiwen and Li Wenhuan. The two sides finally reached an agreement that the Third and Fifth Armies should be merged into "5735" troops, with Duan as the commander and Li as the deputy commander, and accept Thailand's "naturalization, coordination, and guidance in production", jointly responsible for Thailand's public security and receiving supplies (Bian, 2014; Wei & Wan, 2014). In addition, Thailand also sent representatives to hold four talks with the Taiwan authorities from 1968 to 1970 to jointly discuss the issue of the Kuomintang army in northern Thailand, and requested Li and Duan to participate. The Taiwan authorities always wanted to retain the "anti communist" forces in the Yunnan Myanmar Thailand border region, but they lost confidence in the leaders of Li and Duan, so they preferred to recruit new personnel and establish a new army. The Thai side insisted that the command of the Third and Fifth Armies should be under the jurisdiction of the Thai side (Qin, 2009). Because Thailand strongly requested the Taiwan authorities to reply to the question about the detention of the Kuomintang troops in Thailand, it finally gave way to this matter. The issue of Kuomintang troops in northern Thailand also prompted the Taiwan authorities to change their attitude.

The Taiwan side expressed its willingness to continue to provide supplies to the Third and Fifth Armies, but Li and Duan had to return to Taiwan and accept the reorganization of the army, and the command was given by the government (Shi, 2012). However, due to the conflict of interest between the Third and Fifth Armies and Taiwan's "intelligence agency", the first trilateral talks ended in failure (Lin, 2017a). In 1969, Taiwan again discussed the issue of Duan and Li's armies with the Thai government. In August of the same year, Taiwan and Thailand reached a consensus and agreed to establish a Sino Thai joint team to control the two divisions.

However, the differences between the two sides on military power and survival resources eventually led to the failure of the second trilateral talks. At this time, the Governor of Chiang Rai Province was killed by the Miao armed forces in Thailand. In order to mobilize the Kuomintang army in northern Thailand to deal with the armed forces of the Miao nationality, the Thai side once again put pressure on Taiwan to convene the third trilateral talks (Bai, 1988; Lin, 2017b). As for the ownership of the army, Thailand and Taiwan have clarified several issues. First of all, Li and Duan are unwilling to return to Taiwan. Secondly, Duan and Li asked the Taiwan authorities to repay the army salaries they owed. The Thai side expressed its willingness to discuss all solutions with the Taiwan authorities, and the Thai side put forward three proposals (Li, 1970):

(1) Whether or not the Third and Fifth Armies return to Taiwan, they must reorganize the Third and Fifth Armies and remove Taiwan's command

(2) The 3rd and 5th Armies were handed over to the Thai side for its own disposal, and the command authority was negotiated with the Taiwan government

(3) The Third Army will be handed over to the Thai side, and the Fifth Army will be handed over to the Taiwan government for handling, and the command will be negotiated (Kao, 2012)

In the end, although Thailand and the Taiwan authorities reached an agreement, the Taiwan authorities still secretly communicated with the Third and Fifth Armies. As for the Kuomintang army, Duan and Li, on the one hand, were unwilling to give up their determination to return to Yunnan, so they compromised with Thailand and were willing to stay in China as Thai refugees. On the other hand, they also kept some contact with the Taiwan Government of China privately.Secondly, the international pattern changed from the late 1970s to the early 1980s. Opposing Soviet hegemonism has become the most important goal of China's diplomacy, and the containment strategy against China is no longer the first one of the United States (Chung-chi, 2009; Gibson & Chen, 2011). The Vietnam War was hopeless and consumed too much. The United States had a heavy economic and military burden, which seriously affected its economic development and was under great anti war pressure at home. The economic rise of Western Europe and Japan has challenged the western alliance status of the United States (Sa, 2011). As a result, the role of Chinese in northern Thailand in the United States began to decline. In order to make friends with China and stop the Soviet Union, the United States no longer regards the Kuomintang army in northern Thailand as an available "anti Communist" force to some extent.

In addition, due to the special circumstances in northern Thailand, the jurisdiction of northern Thailand is in chaos. In 1973, the local army exchanged two Soviet hostages for military leader Kunsha to get out of prison. At the end of 1981, Kunsha killed international drug control officials and negotiators. Under the pressure of international drug control, Thailand launched an offensive against the northern part of Thailand, with the "Mountain Local Self Defense Force" adapted from the Third and Fifth Armies as the main force. The United States hopes to try to solve the problem of drugs in the Golden Triangle by exerting pressure on the Thai government. On the one hand, it does not hope that the previous support for the Kuomintang army will lead to the deterioration of US China relations. On the other hand, the United States believes that the Golden Triangle problem must be completely solved to bring relations with Southeast Asian countries and China closer. At this time, the United States no longer regarded the Northern Thai Kuomintang Army as an advance force of the Taiwan authorities, but as a Thai army. “

Under the pressure of the United States, in the 1970s, the Thai government mobilized the 3rd and 5th armies of the Kuomintang army in northern Thailand to eliminate the Miao armed forces in Chiang Rai region. Thanks to the support of the Third and Fifth Armies, Thailand approved the proposal of the Supreme United Front Office in 1978 and agreed to naturalize the officers of the Third and Fifth Armies who had made great contributions to the suppression of the Miao armed forces. In August, the Supreme United Front Department of Thailand set up the "Planning and Naturalization Committee" for the 3rd and 5th military officers and soldiers participating in the war, which is composed of one member from each of the 15 government units, and is chaired by the commander of Department 04. Six conditions for naturalization are set out:

(1) Participated in the mopping up of "communist" (Miao armed forces) insurgents, the injured, disabled, disabled and their families in the battle

(2) Family members who participated in mopping up the "Communist" (Miao armed forces) insurgents and died in the battle

(3) Family members who died (in the war zone) from administrative affairs (Sa, 2011)

After Thailand implemented the policy of naturalization of the Northern Thai Kuomintang Army, although many officers and soldiers obtained Thai citizenship as a result, in 1983 it was estimated that 1300 families of officers and soldiers in Northern Thailand could not obtain Thai citizenship (about 6500 people). However, after the fifth group of personnel were approved for naturalization in 1983, the naturalization work was transferred to the Ministry of the Interior. Therefore, about 30% of the officers and soldiers of the Third and Fifth Armies still use "refugee cards" or "carry on cards". Although they were dissatisfied with the one-sided breach of the contract by the Thai government, they had to accept such a provision. Some veterans or family members with strong national ideas were willing to use "refugee cards" to live a life that only allowed them to move in the mountains, and they were also unwilling to use Thai identity cards (Chen, 2010; Kao, 2012).

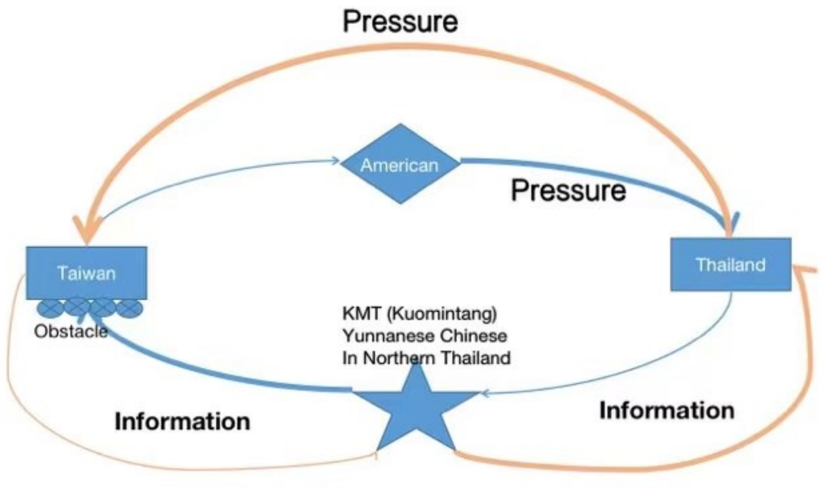

Figure 3 The path of political identity transmission after 1965

Discussions

The strengthening of the Cold War spawned "multiple hierarchies" in northern Thailand, a phenomenon that further led the Kuomintang Army to develop an identity strategy to adapt to the region. The original attributes of "fixation" and "pluralism" were strengthened by the Cold War structure and extended to the formation of the "multiple hierarchical systems", which jointly affected the changes in the international-regional and cross-regional situation. In conclusion, the interaction between the "multiple hierarchical systems" and the international-regional-regional system in northern Thailand is consistent with the assumptions of this paper.

The Kuomintang army in northern Thailand took advantage of the us-Thai-Taiwan (ROC) strategy in northern Thailand, thus transforming its identity strategy into a "foreign" policy. Because the Kuomintang army in northern Thailand took the "new multiple feudalisms" as the center and took the political identity as the tool, thus reaching the "legal occupation" of northern Thailand." Legal occupation" is not only recognized by the United States-Taiwan-Thailand but also a manifestation of the initiative. The "legal occupation" can also pressure one of the three forces, which becomes a game between non-state actors and state-regional and cross-regional forces during the Cold War. The process of developing from the identity strategy of the Kuomintang army in northern Thailand to the "foreign" policy roughly complies with the assumptions of this paper.

Conclusion and suggestions

By analyzing the political perspective of the Cold War and the special geographical structure of Southeast Asia, this paper finds that there is still "multi genus" border ambiguity in Southeast Asia during the Cold War, rather than disappear after the rise of sovereign countries. During the Cold War, Southeast Asia was still in the stage of adaptation to the norms of nation-state. Northern Thailand, as a "multi genus" region, did not lose its characteristics, but strengthened its "multi genus" nature with the reconstruction of the Cold War structure. With the arrival of the Kuomintang army, they combined their own survival strategy with the special geopolitics of northern Thailand. On the one hand, the Kuomintang army settled in northern Thailand by virtue of the particularity of northern Thailand and its pluralistic identity, on the other hand, it wandered between the United States, Thailand and Taiwan authorities as northern Thailand and its pluralistic identity. The Northern Thai Kuomintang Army used this geographical and identity advantage to play games with the US Thailand Taiwan authorities. As a tool of the Cold War, they not only show the loose combination of geopolitics and political identity under the Cold War structure, but also show that the groups used have the initiative to use the power of the Cold War in turn.

We argue that if the Thai government can maintain a moderate degree of flexibility in its policies towards northern Thailand, the ethnic diversity of northern Thailand can become an effective tool for regional governance in Thailand. Especially for the descendants of Chinese refugees, they can bring economic support to the Thai government from the Chinese world. At the same time, their interactions with Thailand, the United States and Taiwan can also be used as past identity strategies and successful cases of interaction between regional governance and global governance in Southeast Asia.

New knowledge and the effects on society and communities

This research is to create a new knowledge.The results of the study will be beneficial to the political identity of trasmission and the governance of northern Thailand.There can be applied the knowledge to solve theThe model in this paper can be used as a reference object when governing ethnic minorities in northern Thailand. Many ethnic minorities in northern Thailand have kept close contact with the outside world, and their identity was always difficult to manage during the Cold War. Through our political identity communication model, we can improve the local authority of the Thai government through joint governance on the one hand, and enable them to give play to their advantages on the other hand. While maintaining their freedom, we can also increase publicity to northern Thailand.

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Brand and Business Model Building from Community Identity for Competitive Advantages of Mae Win Sub-District, Mae Wang District, Chiang Mai Province

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Abstract

The main objectives of this research were to create a brand, business model, and storytelling and to study opinions on identity for community-based tourism and community products in Mae Win Sub-district. Qualitative data was collected using in-depth interviews and focus group with one group of community-based tour operators and five groups of Mae Win sub-district product communities. Data were analyzed using content analysis. Quantitative data were collected by using a questionnaire about tourist behavior regarding community products purchasing and factors effecting traveling and purchasing products in Mae Win sub-district. The data was collected from 600 tourists and a questionnaire of opinion on outstanding identity of Mae Win sub-district from 110 context experts who have lived in Mae Win sub-district for at least 10 years. Data were analyzed using descriptive statistical methods. The results regarding branding found that the brand structure used a unique brand that reflected the story of the community's traditions, culture, wisdom, and lifestyle. The results regarding business modeling showed that business models must be created to understand the customer's journey and customer insights. Moreover, this business model emphasized the value of society over business profit. The results regarding storytelling found that creating a story was a form of travel to guide travel tourists in decision-making to travel to the community. The results of the study showed that opinions on group activities' identity in the area were highly distinctive with a mean of 3.79. The group of physical characteristics indicated a distinctive level with a mean of 3.78 and a group of symbols and wisdom showed a distinctive level with an average of 3.73.

Keywords: Brand, Business model, Storytelling, Identity, Community-based tourism

Introduction

Mae Win Sub-district is one of the famous tourist attractions in Mae Wang District, Chiang Mai Province, Thailand. The major tourist attractions and activities there include elephant riding, trekking, rafting, visiting hill-tribe villages, day-hiking in nature amongst the trees, observing the cascading views of rice fields along the mountains and the forest preserves, and touring flower gardens with Wild Himalayan Cherry trees. The local tourist products are made from natural resources and the cultural products come from ethnic tribes such as Karen woven cloth and model sailing boats. There are running trails for exercising and for learning about the nature around the village. The area includes unique cultural characteristics such as dress and spoken and written language. There are annual events hosted by the people in Mae Win and hill-tribe groups such as the Pakageyor Group (Karen) and the Hmong people. There is rigorous conservation of local wisdom, such as the methods of basketry, barrage mining, bio-composting, tribal terraced farming, and weaving indigenous fabrics distinctive to the culture of each tribe, etc.

With the aforementioned context, Mae Win sub-district has suitable qualifications for developing a community of creative tourism since there are process attributes whereby tourists can exchange knowledge and have direct experiences with the local communities. This interaction could lead to a well-balanced economy, society, culture, and environment for the people of Mae Win since the community products are produced by a variety of cultures and could bring commercial benefits and could develop into a community of quality tourism. This has not yet occurred within the community because the community still follows traditional marketing methods that lack adaptation in a changing market which is a result of the dynamics of the environment, society, culture, and consumer behavior. As a result, Mae Win continues to be exploited by middlemen and tour agents who take advantage of the area by allocating unfair profits to the community. Therefore, the research aimed to strengthen the community marketing and value added creating for community tourism and community products. This research studied the distinctive identity of the community in order to analyze and synthesize the data for community branding, story telling and business models for community tourism and community products of Mae Win sub-district. The analyzed and synthesized data could benefit to the community in order to plan the appropriate marketing and to be able to generate fair trade income which would help to create stability and sustainability of the community business.

The research questions posed were as follows: (1) Will brands created based on the community's identity strengthen tourism and the distinctiveness of community products? (2) Could a business model that emphasizes social and environmental responsibility create a competitive advantage in real situations? This article proposed these concepts to study Mae Win's community identity and then used the data to integrate branding, business models of community tourism and community products, and stories in order to create a fair, competitive advantage for sustainable tourism and community products in the Mae Win Sub-district.

Theories and concepts used in the research included branding, the Business Model Canvas invented by Osterwalder (2010), and brand identity. Branding consists of the following factors: (1) brand title, which is a crucial element (Brown, 2016) because it reflects brand identity very well (Srivastava & Thomas, 2016); (2) logo, which is a brand symbol designed to make the brand more easily recognizable (Logobee, 2020). The logo should be visually meaningful and artistic (Santi, 2018) because the logo helps differentiate the brand of a business from other brands in the market (Rhed Publishers, 2016); (3) brand positioning, which communicates the single most prominent feature of a brand into the minds of customers until they are able to recognize the distinctive features of the brand (Ries & Trout, 2003). Therefore, a good brand position must include words, phrases, or the definition of one thing in the mind of the consumer (Gunelius, 2016); (4) brand personality, which is the personality set of the people who participate in the brand, shown in customers who tend to use the personality of the brand to describe their personality (Sawatsaringkarn, 2017). Brand personality traits are primarily associated with humanity, masculinity and femininity (Lieven, 2018). The Business Model Canvas was invented by Alexander Osterwalder, and was considered a strategic management template that allowed businesses to be able to describe, design, and analyze their business model through nine elements of the canvas (Mansfield, 2019): (1) Customer Segmentation which is the customer target group that a business wants to present the product to; (2) value proposition which is the value of the product, service or experience that will be used to respond to the needs and requirements of customers; (3) channels which present the value of products or services to customers; (4) the customer relationship which is a way of building good relationships with customers; (5) revenue streams which are the main income streams from doing business; (6) key resources which are the main resources required for operating the business according to the model; (7) key activities which are the main activities that must be performed within a business to create value for customers; (8) key partners which are the main trading partners that help drive the growth of a business; and (9) cost structure which includes operating costs divided into fixed cost and variable cost. Finally, brand identity is the external representation of the brand, including logo, sound, and slogan, which is the basic way that consumers recognize the differences between brands (Jain, 2017), making it one of the most important brand attributes (Woraphitayut, 2016). Therefore, strong branding should have a clear brand personality (Aaker, 2000).

The main objectives of this research were to create a brand, business model, and storytelling and to study opinions on identity for community-based tourism and community products in Mae Win Sub-district. The benefits that the community would receive from this research project were the adoption of branding, business models and stories based on identity to create value added for the local businesses so that the communities could generate a steady and continuous increase in general income and make their community more sustainable.

Methodology

This study implemented a parallel research methodology, including qualitative and quantitative research as follows:

1. Qualitative research: The population was a group of community-based tourism operators and community product manufacturers in Mae Win Sub-district. The key informants were selected from a specific sample according to the criterion that they were a group running a business that helped create jobs and careers for people in the community and who genuinely wanted to distribute fair income to the people in the community. The sample groups were obtained, namely, 1) the community enterprise group Ban Sop Win Tourism Club, and 2) Doi Mae Win Girls. Data collection tools included a focus group, in-depth interviews, and field data collection. The data was analyzed using content analysis as follows.

1.1 Branding: The branding procedure included organizing a focus group discussion, in-depth interviews, and participatory workshops with community enterprise groups, Ban Sop Win Tourism Club, and Doi Mae Win Girls to collect information to be used as a guideline for building a prototype branding, together with the use of information obtained from the community identity study, and the data from the needs in the brand composition from both groups until a satisfactory prototype brand was finalized as a reflection of the community's identity.

1.2 Creating a business model: The business model creation procedure started with collecting relevant documents and conducting field surveys. After that, the researchers conducted two focus-group discussions with the community enterprise group, Baan Sop Win Tourism Club, Doi Mae Win Girls group and five other community business groups in Mae Win Sub-district. The goal of the focus group discussion was to work together to analyze the community-based tourism supply chain and community products and create business models.

1.3 Storytelling Creation: The operation processes consisted of a community context survey on community-based tourism and community products, the study of related documents, focus-group discussions, and in-depth interviews with community-based tour operators, producers of community products, and related government agencies in Mae Win Subdistrict, in order to brainstorm ideas to create content for storytelling using quantitative data from the study of community identity. The groups worked together to create a storyboard and a video clip to provide information to tourists through the community's YouTube media channel.

2. Quantitative research: Quantitative research was used to study community identity and behavior of tourists and as follows:

2.1 Study of opinions on identity: The operation procedures included data collection using questionnaires administered to the sample group by indicating the participant criteria as a person who lived or had worked in Mae Win Sub-district for at least 10 years and had knowledge or expertise in identity, society, culture, tourism and community products of Mae Win Sub-district. The use of Delphi Technique as a research tool collected three rounds of data as follows:

Round 1: An open-ended questionnaire was developed from identity theory framework and documents such as publicity brochures from the community-based tourism group of Mae Win Sub-district, the Mae Win Sub-district Administrative Organization website, and interviews with the local people, specifically 10 experts with qualifications according to the specified criteria, consisting of the president of Mae Win Sub-district Administrative Organization, two tourism experts, one municipal council member, one local guide, one village headman, one chairman of Hub Mae Win Group, two accommodation and homestay operators, and one chairman of community-based tourism group.

Round 2: A closed-ended questionnaire using the five-point Likert scale was administered to 110 people consisting of the 10 experts in the first-round questionnaire and 100 members of the local group knowledgeable about local identity. The answers of the experts in this round were analyzed to find the median and the interquartile range to determine the statistics to include in the third-round questionnaire.

Round 3: A closed-ended questionnaire developed from the questionnaire in Round 2 and using the five-point Likert scale was administered to the 10 experts and the 100 members of the local group of Round 2. This questionnaire contained the same questions as Round 2, but added a statistical part indicating the median of the 100 additional participants' answers and the interquartile range to show the corresponding opinions about the answers. These numbers were calculated from the answers of the experts in Round 2 and showed the answer positions of each expert in order to show the consistency of the group's responses so that they could discuss and change their answers to match the group's opinions.

Three groups of identity variables were used to study the community's identity: (1) physical characteristics group, (2) local activity group, and (3) symbol and wisdom communication group, with a total of 20 variables. The data used to determine the variables were drawn from the Mae Win Sub-district administrative organization website, the Mae Win Sub-district public relations brochure of community business and tourism, and transcriptions of interviews with people in the community. The identities of the three groups were then taken to prioritize in order to display their clear relation with the community in the dominant communicative media. The community identity was then determined based on the website, brochure, and interviews, with emphasis given to the website's and brochure's descriptions of the community identity. A Likert scale estimation questionnaire was used, and the analysis of the questionnaire was based on ranking the results by descriptive statistics. The average of the scores was used as an analytical indicator (Best, 1977).

2.2 Study of tourists' behavior: This study examined the factors influencing travelers' decision-making in purchasing community products. The population was tourists who traveled to various places in Mae Win Sub-district, while the sample group was an unknown actual population number. Therefore, number values were substituted using Yamane's formula (1967), assuming the proportion was 0.5 at the 95% confidence level. 600 samples were obtained at the error size of 0.5 using a simplified sample selection method. The data were analyzed by descriptive statistics to determine the frequency and percentage of the general data of the sample group, tourists' activities and community products purchasing behavior. Inferential statistics were used in both one-way and two-way variance. One-way variance was used to analyze the difference of opinion levels in factors that influenced tourists' travelling and product purchasing in the community. These statistics were classified regarding the purposes of travelling to the community. Two-way variance data was used to analyze the variables of gender, age, and purposes of travelling to Mae Win Sub-district. The obtained results were used to support the qualitative analysis of the data.

Results

The findings showed the relationship between branding, business model, storytelling, identities, and tourist behavior that could be integrated to create competitive advantages, as follows:

1. The results of brand building

Two community groups were utilized for brand building within Mae Win: the Ban Sop Win Tourism Club and the Doi Mae Win Girls Group. Brand building with the Ban Sop Win Tourism Club was created from the club's choice among four drafts of images, shown in Figure 1, each with a different brand slogan and brand logo. The group chose the fourth draft with the title "Ban Sop Win Tourism Club Community Enterprise." This title was drawn from the name of a well-known group that led rafting, elephant riding, and trekking activities. The logo was a drawing of an elephant standing on a bamboo raft with local people steering the raft and tourists sitting on top of the elephant. Black and white were used to convey serenity, mystery and suspense. The brand personality expressed excitement, vitality, and adventurousness. The brand positioning for competitiveness is signified as a tourist attraction and an adventure destination deep in nature with aspects of the local culture and a tribal way of life.

Figure 1 Product branding of the community enterprise group, Ban Sop Win Tourism Club (Source: Chum-un et al., 2022)

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Brand building with the Doi Mae Win Girls Group was created in the same way as with the Ban Sop Win Tourism Club. Four drafts of the brand image, shown in Figure 2, were designed, and the group chose the fourth draft with the title "Sao Doi Mae Win" to represent the predominantly female members of the group. The logo was a combination of letters and an image of a woman wearing the tribal costume of the Karen people. The color brown was used as a symbol of friendship, simplicity, tribal beliefs and a tribal way of life. The brand personality expressed sincerity, warmth, and sociableness. The brand positioning for competitive advantage was a based on contemporary wisdom from the local identity of the ethnic tribes.

Figure 2 Branding for Doi Mae Win Girls community products
(Source: Chum-un et al., 2022)

. The results of business model building

The process for building a business model for community- based tourism and community products is shown in Figure 3.

Figure 3 Business model to create competitive advantages in Mae Win Sub-district
(Source: Chum-un et al., 2022)

The business model was divided into two parts: (1) customer equity and revenue contained five fields of information on the canvas, as follows: the customer group (CS) which focused on the market segment located close to tourist attractions, while the value (VP) was delivered to tourists in the local activity group via the physical characteristics group and symbolic communication group using (CH) word-of-mouth and social media channels to build relationships (CR) with tourists. The main income stream (RS) of the community was derived from elephant riding, rafting, trekking, souvenir shops, and accommodation and homestay. The community planned to increase income from new tourist activities such as visiting rice terraces, cooking, running trails, viewing agricultural demonstrations and various tribal traditions, etc. (2) business expenses, consisted of four fields of information on the canvas, as follows: the main resource (KR) included natural tourist attractions, souvenir products, and Mae Win Sub-district brands. These resources must be planned to coincide with the main activity (KA) that could drive business growth, consisting mainly of producing quality products, creating tourism activities that allow tourists to participate in local activities, and ensuring the safety of tourists. The main partners (KP) that supported business operations included the Mae Win Sub-district Administrative Organization that supplied information about tourism in the community and about basic utilities and facilities in the community. The local Mae Wang Police Station also facilitated tourist security. The cost structure (CS) was divided into three main costs including: the cost of conducting tourism business, including hiring tour guides and travel service personnel; the cost of building tourism facilities such as restrooms, accommodations, and restaurants; and the cost of goods consisting of raw material cost, labor cost, and production cost. It is necessary for the community to understand these costs in order to determine fair prices for souvenirs, improve productivity, and increase profits, thereby becoming more self-sufficient.

3. The results of creating tourism storytelling

Creating a story as a form of travel (Round trip) to guide travel for each traveler for decision making to travel to the community as shown in Figure 4.

Figure 4 Community-based tourism storytelling and community products via YouTube videos
(Source: Chum-un et al., 2022)

Storytelling in tourism involves creating a story of travel in the tourists' minds. It is best depicted in a series of images that highlight memorable experiences of the tourists' activities. Storytelling also creates content that is easily searchable (Findable) with keywords, for example, "Thiaw Mae Win, Chiang Mai," and that is easy to understand (Understandable) by the use of images. Storytelling stimulates travel (Actionable) because it incentivizes the need to travel through animation and still images, and it is shareable through the elements of the story. The framework for storytelling consists of three parts: (1) character, which shows the distinctive physical characteristics, natural attractions, and people of the destination. In this study, the story depicted four tourists travelling to the Mae Win Sub-district and stopped by the Mae Win Sub-district Administrative Organization to get helped about local attractions, activities, and community products; (2) plot presented the atmosphere of the community as welcoming and peaceful for being surrounded by mountains and nature. The plot was shown in images without descriptions of the name of each attraction, and accompanied by music to create incentives for tourists to visit and explore the attractions by themselves; (3) theme depicted the experience of once-in-a-lifetime travel that would add value to life by creating memorable experiences.

4. The results of the study of opinions on identity

The results of the study of opinions on the identity of three groups in the community revealed similar scores across the three groups. The activity groups scored an average of 3.79. Outstanding items in this category included traditions and culture with an average score of 4.04, service activities for both Thai and foreign tourists with an average score of 4.0, and way of life of the people in the community with an average score of 3.90. The physical characteristics group scored an average of 3.78, with the outstanding factors including natural attractions with an average score of 4.13, and ecological and natural environment factors with an average score of 3.95, souvenir shops in the community with an average score of 3.90. Symbolic communication and local wisdom factors scored an average of 3.73. The outstanding features in this category were brand and community identity with an average score of 3.90, and natural attractions reflecting local culture with an average score of 3.66. These results are shown in Table 1.

Table 1 Number of percentage, mean, standard deviation and level of opinion about community identity of Mae Win Sub-District.

Identity of Community	$\bar{x}$	S.D.	Interpret
1. Local community activities group	3.79	0.78	Very outstanding
2. Physical characteristics group	3.78	0.76	Very outstanding
3. Symbolic communication and local wisdom group	3.73	0.82	Very outstanding

Group	Level of opinion Lowest N (%)	Low N (%)	Medium N (%)	High N (%)	Highest N (%)	$\bar{x}$	S.D.	Interpret
1. Local activities								
1.1 Tradition and culture		3 (2.73)	20 (18.18)	57 (51.82)	30 (27.27)	4.04	0.753	Very outstanding
1.2 Tourist service activities		1 (0.91)	23 (20.91)	58 (52.73)	28 (25.45)	4.03	0.710	Very outstanding
1.3 Community way of life		4 (3.64)	25 (22.73)	61 (55.45)	20 (18.18)	3.88	0.739	Very outstanding
2. Physical appearance								
2.1 Natural attractions		5 (4.55)	25 (22.73)	46 (41.82)	34 (30.91)	4.13	0.851	Very outstanding
2.2 Ecosystem, natural environment		3 (2.73)	38 (34.55)	53 (48.18)	16 (14.55)	3.95	0.669	Very outstanding
2.3 Souvenir and products		3 (2.73)	30 (27.27)	52 (47.27)	25 (22.73)	3.90	0.778	Very outstanding
3. Symbolic communication								
3.1 Brand and community identity	3 (2.73)	2 (1.82)	32 (29.09)	51 (46.36)	22 (20.00)	3.90	0.879	Very outstanding
3.2 Natural attractions that show culture	1 (0.91)	8 (7.27)	47 (42.73)	38 (34.55)	16 (14.55)	3.55	0.863	Very outstanding

Table 1 shows that the average level of opinions about identity in each group was similar across all items, suggesting that Mae Win Sub-district had a distinctive identity based on all the aspects studied. Three of these aspects would be used to create branding, business models, and storytelling: (1) psychological aspects would be used to impress tourists and stimulate their interest and confidence in travelling to Mae Win Sub-district; (2) behavioral aspects to encourage tourists to seek information on community-based tourism and community products, and; (3) destination image factors to promote a good image of Mae Win Sub-district and make it popular for tourists.

Mae Win was also the basis for creating a Brand Identity Prism based on Kapferer's (2008) concept of a prism diagram. The external characteristics consisted of: physical characteristics, relationship with the community members, and reflection of tourists' interests in the activities of the community, while the internal characteristics consisted of the personalities and character of the community members, the local culture, and the self-image of the community members as cheerful, lively, and welcoming to tourists. These features are summarized in Figure 5.

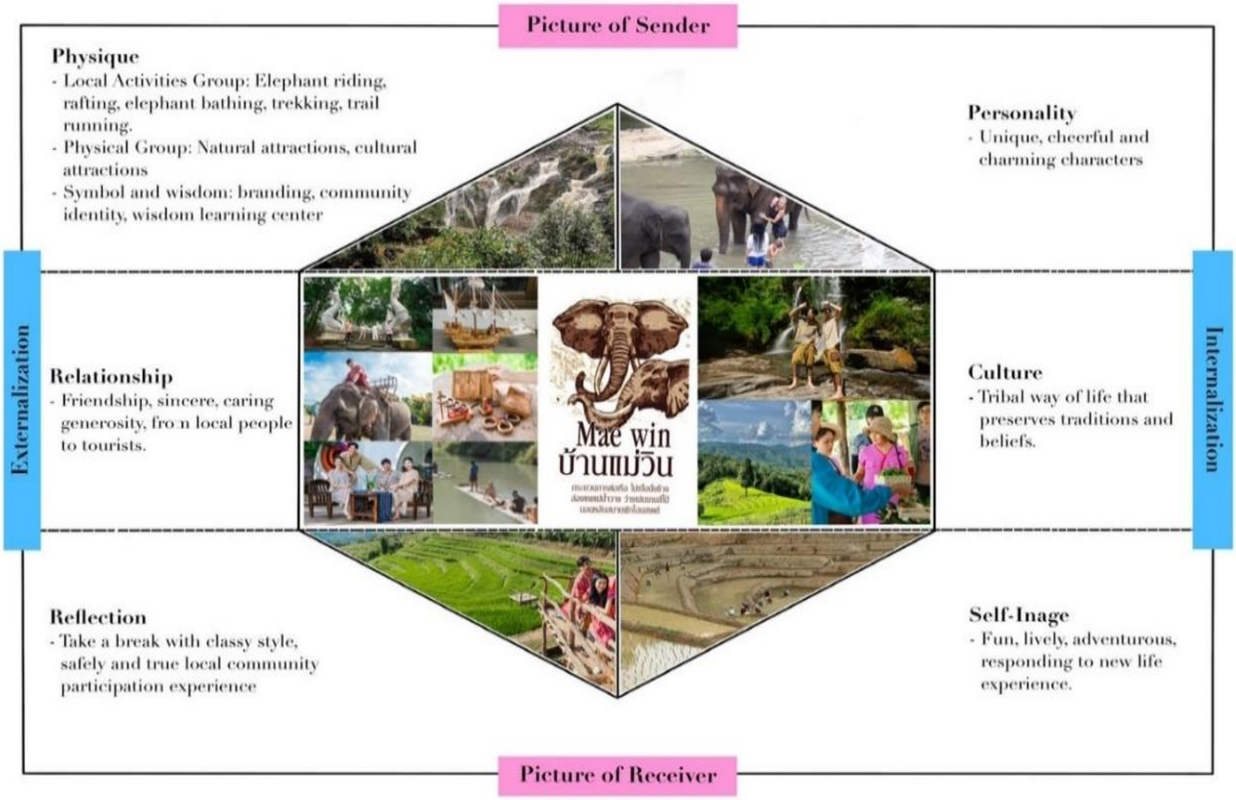

Figure 5 Prism of brand identity, community-based tourism and community products in Mae Win Sub-district (Source: Chum-un et al., 2022)

5. The results of the study of tourist behavior

5.1 The study of tourist behavior and community product purchasing behavior found that most of the respondents were first-time visitors to Mae Win Sub-district, accounting for 55.17% of respondents, while second-time or higher visitors accounted for 44.83%. Tourists' objectives of travelling included rafting (63.69%), followed by elephant riding (15.92%). Tourists indicated that they travelled by private car the most, accounting for 87.17%, followed by vans or rental cars, accounting for 8.17%. Most tourists revealed that they travelled with family and relatives (45.50%), followed by those who travelled with friends (36.50%). Tourists who came for day trips accounted for 94.17% of respondents, and most received information about tourism and community products from family and friends, accounting for 57.58%, followed by the Internet, websites and social media, accounting for 41.47%.

5.2 The results of the study of factors affecting the visit and product purchasing found that the buildings and physical characteristics were important, with a high average score of 4.07 out of 5. Other features were also important, specifically adequate tourist attractions and adequate facilities such as food and beverage shops, accommodations and bathrooms, which altogether scored a high average rating of 4.12, followed by the convenience and safety of travelling to tourist attractions, accommodation and community products shops. Tourists responded that the tourist attractions in the community were clean, beautiful and attractive to visit, with a high average score of 4.08 and that the attractions were well prepared and sufficient, with a mean score of 4.00. These results are shown in Table 2.

Table 2 Number of percentages, mean, standard deviation, and level of opinion on factors influencing tourism and purchase of goods in terms of buildings and physical characteristics

Aspect of creation and physical appearance	Level of Opinions					Average	SD.	Interpret
	Lowest N (%)	Low N (%)	Medium N (%)	High N (%)	Highest N (%)			
1. Tourist attractions have facilities, appropriate and adequate onveniences such as restaurants and accommodations.	14 (2.33)	21 (3.50)	72 (12.00)	263 (43.83)	230 (38.33)	4.12	0.916	High
2. Convenience, safety in travelling to tourist attractions, accommodation and shopping centers	26 (4.33)	10 (1.67)	82 (13.67)	256 (42.67)	226 (37.67)	4.08	0.983	High
3. Tourist attractions in the community are clean and attractive.	24 (4.00)	17 (2.83)	77 (12.83)	252 (42.00)	230 (38.33)	4.08	0.990	High
4. Tourist attractions are ready and provide adequate access to the services.	26 (4.33)	12 (2.00)	85 (14.17)	288 (48.00)	189 (31.50)	4.00	0.963	High
Total						**4.07**	**0.963**	High

The second factor influencing tourists' desire to visit and purchase goods in the community included the local products and tourist attractions, which showed a high average score of 3.99. Natural attractions that were beautiful and safe to access displayed a high average score of 4.11, followed by well-known tourist attractions with an average score of 4.10, followed by a wide variety of travel activities with an average score of 4.00. These results are shown in Table 3.

Table 3 Number of percentages, mean, standard deviation, and level of opinion about factors influencing visits and purchases products and tourist attractions

Local products/Tourist attractions	Lowest N (%)	Low N (%)	Medium N (%)	High N (%)	Highest N (%)	Average	SD.	Interpret
	Level of opinion							
1. Beautiful and safe tourist attractions	20 (3.33)	12 (2.00)	75 (12.50)	270 (45.00)	223 (37.17)	4.11	0.931	High
2. Well-known tourist attractions	11 (1.83)	21 (3.50)	91 (15.17)	253 (42.17)	224 (37.33)	4.10	0.907	High
3. There are various tourist activities such as elephant riding, rafting, and trekking.	19 (3.17)	23 (3.83)	101 (16.83)	254 (42.33)	203 (33.83)	4.00	0.973	High
4. There are adequate local products and shops in the community.	17 (2.83)	25 (4.17)	123 (20.50)	253 (42.17)	182 (30.33)	3.93	0.963	High
5. There are unique local and tribal cultural attractions.	16 (2.67)	26 (4.33)	129 (21.50)	247 (41.17)	182 (30.33)	3.92	0.963	High
6. Tourist attractions demonstrate local methods of production.	18 (3.00)	29 (4.83)	129 (21.50)	242 (40.33)	182 (30.33)	3.90	0.987	High
	Total					**3.99**	**0.954**	**High**

Discussions

1) The study of community identity discovered that tourism and the community's self-sufficiency could be increased by highlighting the distinctive identity of the community and the activities in the area. These activities included tourist engagement with the traditions and culture of the community, physical characteristics such as natural attractions, ecosystems, and the environment, and learning from the groups that specialized in community wisdom and symbols. In turn, tourists' experiences with these activities could be spread via social media and word of mouth, thus creating a community brand and making Mae Win a preferred sustainable travel destination. This was consistent with Teeroovengadum's study (2019), which found that a strong environmental identity could lead tourists to have a positive attitude towards and a greater interest in ecotourism. The study by Sermchayut (2021) found that community tourism would be more successful and sustainable with the use of marketing promotion tools that focused on presenting the community's way of life, and wisdom, including the use of marketing promotions to create tourist loyalty by providing tourists with a sense of belonging. Kamphaengphet et.al. (2019) found that local resources could develop community identity, especially resources and tourist attractions that imparted history and culture. Koomsalud &

Kwaipun (2020) pointed out that community identity consisted of lifestyle identity, community products, and tourism activities. Chaiala & Ruengroj (2016) found a way to communicate identity to promote tourism by creating pride in the identity of the community. The reputation of the community in online media should stimulate interest in the community and increase demand for travel. Sriratna (2021) found that there were two methods of communicating identity: communication within the community and communication outside the community. In addition, the study by Carlucci (2021) indicated that the advancement of digital technology allowed travelers to use mobile applications built by carriers. Moro & Rita (2018) discovered, by analyzing 213 articles related to the use of social media to create a travel brand strategy, that the strong relationship between social media and brands has a major impact on brand building.

2) The brand building study found that brands that come from the identity and culture of the community would foster long-term bonds with tourists, allowing them to experience the community's unique charm and creating good experiences with the people in the community. This was consistent with Chang's study (Cheng et. al., 2020), which observed how customers strengthen emotional engagements with a community's brand and how customers' emotional engagement played a role in their purchasing decisions, thereby strengthening the community brand. Similarly, Mikulic' et.al. (2016) studied the relationship between brand strength and travel intensity and found that brand strength was positively correlated with increased tourism intensity. The study by Phondee & Chesamae (2021) showed that brands that were consistent with community identities could add value to the product. Buaclee (2018) found that the design of a corporate identity to reflect wisdom and culture as universal had the potential to compete with international brands. For a community to provide quality, creative tourism, people in the community must be aware of the conservation and restoration of community resources, including the continuation of traditions, culture and lifestyle from generation to generation, in order to create tourism activities based on community identity shared with tourists who visit. In this way, the community could truly develop into a community of creative tourism. As Twichasri (2017) found, community identity is part of sustainable tourism management, and the community must cooperate to preserve the culture, traditions, and way of life of the local people. Junead, Jamnongchob & Manirochana (2018) found ways to improve experiential tourism by means of attractions, accommodations, amenities, activities, and community participation. Thanongkit (2018) discovered the main factor for the success of creative tourism was the utilization of available resources in the area, which enhanced tourists' experiences by allowing tourists to learn and do the activities themselves.

3) The study on building a business model based on identity revealed that a good business model must be based on understanding the customer journey in the "new normal" era that uses digital resources in everyday life, together with creating shared experiences between communities and tourists and conducting business with social and environmental responsibility. Haggège's study (2020) found similar results and suggested that business models were creative processes that required entrepreneurs to determine how value could be created through new activities. The study by Jin et.al. (2021) indicated that innovative business models were used to find, analyze, and solve problems and create new business models for the future.

Manowan (2017) found that business models could be used as guidelines for business planning in order to create a competitive advantage. Any entrepreneur with a good business model that could actually be used would be able to compete in the market sustainably. Similarly, Dhamabutra (2019) showed that creative strategies must utilize creative business development models and focus on providing opportunities for tourists to participate in creative activities that add new experiences to life. This was in line with a study by Maneeroj (2017) that found that community-based tourism was tourism in which community members participated in tourism management for the benefit of the community. Communities must aim to create interactions and bonds between hosts and visitors through participation in tourism activities. Additionally, Alegre & Miraben (2016) study on the literature on social enterprise and innovative business models indicated three factors that were critically important to a business's success: value proposition, proper market research, and stakeholder engagement. Moreno (2020) stated that the main international institutions pointed the need to transform the economy to be sustainable and environmentally friendly, and cultural heritage could be an important mechanism for future urban development.

4) The study on creating storytelling found that stories could be a guide for tourists to use in deciding to travel to the community and promote good brand awareness by creating content that was easy to find and understand. The use of both moving images and still images conveyed meaning and was motivating. These results were consistent with Ballester's study (2021), showing that storytelling was human instinctive activity and brand narratives would have a positive impact on tourists' reactions to consumer brands. A study by Hong, Yang & Wooldridge (2022) found that brand narratives were effective marketing tools because they were created and shared by consumers, thereby enhancing brand attitude and creating more positive emotional experiences. Likewise, a study by Kemp et.al. (2021) showed that story content was positively associated with the emotional and personal relationships of a consumer. Karampournioti & Wiedmann (2022) found that animated storytelling techniques could enhance the experience of the service users as well as improve the product's overall attractiveness by linking relevant brands in consumers' minds.

Conclusion and suggestions

Branding, business models and storytelling developed from a distinctive community identity and socially and environmentally responsible business practices could create competitive advantages for community-based tourism and community products.Marketing test results indicated that branding was very important regarding building awareness and creating awareness for community products. The brand satisfaction assessment results of Mae Win sub-district overall were at a high level with an average of 4.17. However, the community must work together to establish the brand positioning in the minds of tourists, as well as develop a business model in accordance with the travel behavior of tourists in a world where digital use is very important to their lives. This study has suggested the following points: the community must create new forms of tourist activities that are characteristic of the community. This will create a unique experience for tourists. It will be an important choice for the success of community-based tourism and sustainable community products, where the main goal may be value to society instead of profits. The communities in Mae Win Sub-district have abundant social capital in the form of natural attractions, culture, traditions, and ways of life that create a strong community identity. These resources, combined with hospitability and openness to tourists, can create impressive experiences and allow the Mae Win community to develop sustainable tourism.

New knowledge and the effects on society and communities

The results obtained from this study are presented as follows: (1) a prototype brand of community-based tourism business can be developed to reflect individual identity, personality and brand position; (2) a business model emphasizing social and environmental responsibility can be used as a marketing plan for competitive marketing; (3) video marketing and image narratives could enhance tourist awareness of the community with content that is easily searchable with simple search terms. The visual stimulus should be easy to remember and understand, and copyright permission for audiovisual works should be obtained from the relevant department of intellectual property. Overall, the effect on the local community was the increased production of unique community-based tourism and community products of Mae Win Sub-district, which became more well-known to tourists. The community of Mae Win Sub-district could capitalize on the results of this research to strengthen their business community. This would help them develop strong foundations of economic immunity and sustainable self-sufficiency.

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Confirmatory Factor Analysis of Intrapreneurship in Automatic Identification Technology for Technology Disruption in Thailand

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Abstract

The purpose of this research study was to analyze and examine the confirmatory factors in intrapreneurship of automatic identification technology suitable to cope with technology disruption in Thailand. The conceptual framework of the study, derived from the review of related literature, revealed the main factors in the aspects of human resources development and teamwork, leadership and followership, organizational culture, and learning organization. The sample group for the study comprised 420 representatives, including executive staff members in the position of department managers and professional-level employees selected by multiple-stage sampling method. The tool for data collection was a 5-level rating scale questionnaire with the IOC between 0.80-1.00, and SPSS Amos was used for the confirmatory factor analysis.

The results of the confirmatory factor analysis asserted that the measurement model of human resources development and teamwork, leadership and followership, learning organization, and organizational culture, respectively, which were all consistent with the empirical data. The fit indices analysis results showed $\chi 2$ = 131.80, *df* = 125, P-value = 0.335, AGFI = 0.947, NFI = 0.980, IFI = 0.999, RMSEA = 0.011, SRMR = 0.009, CFI = 0.999, $\chi 2$ / *df* = 1.049.

Based on the results of the research study, the factors examined can be used as a guideline for developing the intrapreneurship of employees in automatic identification technology businesses to embrace the changes and advance the organization to cope with the competitiveness in the future, as well as to come up with creative problem solutions in an effective fashion.

Keywords: Confirmatory factor analysis, Intrapreneurship, Automatic identification technology

Introduction

Today technology has changed rapidly. The fourth industrial revolution introduced the technology that has destroyed the lines between physical, digital, and biological environments in all sectors. Different technologies, including artificial intelligence, nanotechnology, quantum computing, synthetic biology, and robotics have replaced digital advancements that were made in the past 60 years and also made possible what was unlikely to happen then. These technologies have shaken and changed the business patterns of each industry unquestioningly. For example, they have brought about the efficiency enhancement of the electronic equipment called ‘micro processer’ both in terms of the technology itself and architectural structure, making the equipment much tinier, with a more gigantic memory unit. As a result, small portable laptops or notebook computers are seen ubiquitously, and a supercomputer works incredibly faster. However, due to the spread of Covid-19, some organizations have not been able to adjust to the technological changes and ended up shutting themselves down. Additionally, such changes have forced analog technologies to develop into digital ones. Consequently, automatic identification technology has been developed and used very quickly.

Automatic identification technology was invented to facilitate business management and minimize the chance of error, particularly, the use of automatic data recording instead of manual counting and note-taking. Examples of automatic identification technologies are barcodes, optical character recognition (OCR), biometrics, smart card or contact auto-ID, and radio frequency identification (RFID) (Kovintavewat, 2008). Therefore, automatic identification technology, or Auto-ID, has now played an important part in people’s daily life. Barcodes, for example, are generally seen on products and different consumer goods. Still, barcode technology had limitations in storing data previously, but the problems have now been fixed by replacing the old barcode with a new one called QR Code (Quick Response Code) or a 2-dimensional barcode. In Japan and other countries, this new barcode technology has become very much popular and widely used now (Prakobtham, 2011, p.41-47). Today, it is essential to develop automatic identification technology-related businesses. Organizations need to realize the importance of strategies regarding human resources development by putting an emphasis on the development of competence and ability of the personnel in the organizations in order that they can come up with ideas and seek new business opportunities. Corporate entrepreneurship, CE is a strategy introduced for employees to create business value by utilizing in-house resources as if they are all entrepreneurs themselves (Fisher et.al., 2020). Hence, the entrepreneurship of employees is of immense importance for the survival of a business organization due to the fact that they are directly responsible for the risks and uncertainty of doing business, as well as that they are those who lead the business to achieve organizational goals in terms of profits and success (Kulkalyuenyong, 2018, p.1-11).

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The definition of intrapreneurship has been revised based on the ideas of Richard Cantillon (1959), who was the first who introduced the term 'entrepreneur' to mean a business owner. Richard viewed that an entrepreneur possesses certain characteristics of a business owner who is accountable for economic risks that have an impact on his or her organization. He also noted that an entrepreneur is actually a present investor to gain profits which is uncertain in the future. Productivity and wealth in the economy do not exist without business owners who are willing to take risks in their businesses. Additionally, the business owners need to run the businesses to the extent that includes management and coming up with innovations. Entrepreneurs are those who bring about changes in order to make businesses prosper in order to achieve an acceptable standard and cost-effectiveness which is beneficial to the planning and development for efficiency enhancement of the business in the future Likewise, (Kulkalyuenyong, 2018, p.1-11) proposed the idea of entrepreneurship that focuses merely on leadership, emphasizing the importance of how to instill the qualities of an entrepreneur into employees in an organization to keep up with changes regarding modern management that place importance on human capital, leading to a new term being coined as 'intrapreneurship'. The term has been widely-known as 'corporate entrepreneurship' or 'intrapreneurship (Kulkalyuenyong, 2018, p.1-11). In practice, intrapreneurship in an organizational context encourages the employees' creativity and their thirst for new ideas for increasing productivity by seeking opportunities from surrounding situations, managing organizational risks efficiently, and enhancing sustainable competitiveness.

Based on the information, intrapreneurship has been more and more widely popular. However, to support technology disruption in an efficient manner, the intrapreneurship of automatic identification technology in Thailand needs to focus on enhancing the personnel in organizations to work efficiently. Such an initiative requires consistent new knowledge to cope with technology disruption aptly. The idea of developing intrapreneurs has been accepted by many academics in that it will help boost business profits and sustainable competitiveness, as well as encourage efficient short-term and long-term management plans in an organization under changing circumstances for organizational development, in terms of policy, goals, management approach, and human resource development. In order for an automatic identification technology business to survive and prosper under such rapidly changing circumstances, well-organized management that encourages employees' intrapreneurship will help minimize production losses, improve quality, enhance efficiency, and create a positive working atmosphere. Also, based on the concepts and theories about the development model of intrapreneurship, a person can be trained to be an intrapreneur who seeks opportunities to generate a good return.

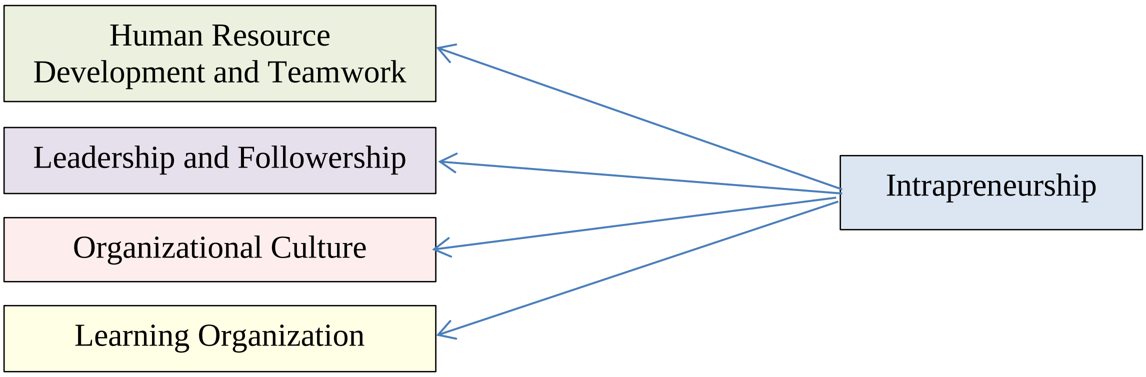

Figure 1 Conceptual framework
(Source: Paitoon, 2022)

Figure 1 illustrates the conceptual framework of the intrapreneurship of automatic identification technology that incorporates.

Research Objectives

To analyze and examine the confirmatory factors in intrapreneurship of automatic identification technology that are suitable to embrace technology disruption in Thailand.

Research Hypothesis

Confirmatory factors for the development model of the intrapreneurship of automatic identification technology to embrace technology disruption in Thailand are consistent with the empirical data.

Methodology

This research study is a quantitative investigation. The tool used for data collection was a 5-level rating scale questionnaire. The content validity of the tool was examined by 5 experts who asserted that its IOC was between 0.80-1.00. The questionnaire was then used for a try-out with 30 people as an experimental group and its reliability examined was 0.95. Subsequently, the questionnaire was used to collect data from the sample group in this research study, and the data were analyzed by the confirmatory factor analysis method. The details of the methodology are described below.

1. Population

The population of the study was made of up the personnel in 201 automatic identification technology companies in Thailand (based on the database of registered juristic persons who own automatic identification technology businesses, the Department of Business Development 2022).

Table 1 Number of registered companies running automatic identification business in Thailand

Provinces	Number of companies	Percentage
Bangkok	115	57.2
Pathum Thani	27	13.4
Nonthaburi	17	8.5
Samut Prakan	12	6.0
Chonburi	11	5.5
Samut Sakhon	5	2.5
Phuket	3	1.5
Nakhon Ratchasima	2	1.0
Phetchaburi	2	1.0
Kalasin	1	0.5
Chachoengsao	1	0.5
Chiang Mai	1	0.5
Mahasarakham	1	0.5
Rayong	1	0.5
Songkhla	1	0.5
Uttaradit	1	0.5
Total	**201**	**100.00**

Source: Department of Business Development, Ministry of Commerce (2022)

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2. Sample group

The sample group consisted of 420 executive staff members, including department managers and professional-level employees in the above-mentioned companies. As the exact number of employees in the companies could not be verified, the sample group was then determined in the case of an infinite population, using the formula invented by W.G. Cochran (1953) at a reliability level of 95% with an error of 5%. Hence, a multi-stage sampling method (May, 1997) was employed for determining the sample group of the study as elaborated below.

Stage 1. A stratified random sampling method was applied to registered companies of automatic identification technology businesses with the Department of Business Development in Thailand and the companies were divided into five strata: 1) Bangkok, 2) Pathum Thani, 3) Nonthaburi, 4) Samut Prakan, and 5) Chonburi.

Stage 2. A quota sampling was then used to specify the number of samples proportionally.

Stage 3. A simple random sampling using a lottery method was finally utilized to determine the sample group of the study which included 420 representatives, including department managers and professional-level employees.

Table 2 Proportion of the five areas with the highest density of automatic identification technology companies

Stratum No.	Number of companies	Percentage	Number of questionnaires
1.Bangkok	115	63.19	265
2.Pathum Thani	27	14.84	63
3.Nonthaburi	17	9.34	39
4.Sumut Prakan	12	6.59	28
5.Chonburi	11	6.04	25
Total	**201**	**100.00**	**420**

Source: Department of Business Development, Ministry of Commerce (2022)

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3. Data analysis

Table 3 Analysis of the distribution of descriptive statistics of variables for the development model for automatic identification technology intrapreneurs to cope with technology disruption in Thailand

Variables	Range	Min	Max	$\overline{X}$	SD.	Variance	Skewness	Kurtosis	CV.
Human Resource Development									
HRT1	3.50	1.50	5.00	4.00	0.62	0.38	-0.52	1.15	15.50%
HRT2	3.50	1.50	5.00	4.13	0.63	0.40	-0.36	0.23	15.23%
HRT3	3.50	1.50	5.00	4.02	0.69	0.47	-0.43	0.04	17.07%
HRT4	4.00	1.00	5.00	3.84	0.69	0.47	-0.90	2.32	17.91%
HRT5	4.00	1.00	5.00	3.93	0.69	0.48	-0.56	1.35	17.54%
HRT6	4.00	1.00	5.00	3.93	0.68	0.47	-0.61	1.02	17.34%
HRT7	3.00	2.00	5.00	4.09	0.61	0.37	-0.41	0.38	14.93%
Leadership and Followership									
LEF1	2.50	2.50	5.00	4.00	0.61	0.37	-0.16	-0.28	15.14%
LEF2	3.00	2.00	5.00	4.12	0.62	0.38	-0.44	0.17	14.98%
LEF3	4.00	1.00	5.00	4.09	0.70	0.49	-0.79	1.36	17.17%
LEF4	3.50	1.50	5.00	3.96	0.70	0.49	-0.69	0.85	17.60%
LEF5	3.50	1.50	5.00	4.05	0.70	0.49	-0.74	0.73	17.30%
Organizational Culture									
ORC1	3.00	2.00	5.00	3.94	0.63	0.39	-0.25	-0.14	15.93%
ORC2	4.00	1.00	5.00	3.88	0.65	0.42	-0.51	1.19	16.75%
ORC3	4.00	1.00	5.00	3.89	0.72	0.52	-0.78	1.76	18.48%
ORC4	3.50	1.50	5.00	4.05	0.69	0.48	-0.47	0.03	17.09%
Learning Organization									
LOR1	3.00	2.00	5.00	4.13	0.50	0.25	-0.51	1.79	12.18%
LOR2	3.00	2.00	5.00	4.05	0.61	0.37	-0.42	0.20	15.11%
LOR3	4.00	1.00	5.00	3.93	0.64	0.41	-0.61	1.75	16.24%
LOR4	3.50	1.50	5.00	4.00	0.64	0.41	-0.43	0.61	15.98%
LOR5	3.00	2.00	5.00	4.09	0.61	0.37	-0.41	0.34	14.96%

In Table 3, referring to the analysis of the distribution of descriptive statistics of variables for the development model for automatic identification technology intrapreneurs to cope with technology disruption in Thailand, there are four latent variables: human resource development, leadership and followership, organizational culture, and learning organization; and there are twenty-one observed variables altogether. The values of range are between 2.50-4.00, whereas the lowest value measured is 1.00 and the highest is 5.00. Mean scores are between 3.84-4.13 which is at a high level. Standard deviation values are between 0.50-0.72 which indicates that the data are distributed close to the mean scores, but not over 30 percent of the mean scores. The variance or square values of the standard deviation are between 0.25-0.52; the skewness values are between (-0.90)-(-0.16) whereas the kurtosis values are between (-0.28)-2.32, which are slightly higher than the normal curve. Recommended skewness value should not be over 3.00; and kurtosis, not be over 10.00 (Suksawang, 2013). Additionally, values of coefficient of variation: CV should be between 12.18-18.48 percent, or lower than 30 percent, which indicates suitable data distribution (Griffiths JC, 1967). For this reason, it can be concluded that the variables have the right validity for the analysis of the measurement model in the confirmatory factor analysis of the development model for automatic identification technology intrapreneurs to cope with technology disruption in Thailand.

Results

Results of confirmatory factor analysis in intrapreneurship of automatic identification technology to cope with technology disruption in Thailand

In this part, the confirmatory factor analysis of the development model for automatic identification technology intrapreneurs to cope with technology disruption in Thailand shows that the variables include. Factor 1 human resource development and teamwork, which consists of 7 sub-factors, including needs for organizational stability (HRT1), basic needs (HRT2), organizational ethics (HRT3), work motivation (HRT4), effective teamwork (HRT5), teamwork processes (HRT6), and team goal (HRT7); Factor 2 leadership and followership, which is made up of 5 sub-factors including leadership and followership qualities (LEF1), relationship between a leader and followers (LEF2), transformational leadership (LEF3), innovative leadership (LEF4), and leaders' vision (LEF5); Factor 3 organizational culture, which comprises 4 sub-factors including organizational values (ORC1), organizational behavior (ORC2), organizational management procedure (ORC3), and organizational vision; and Factor 4 learning organization, which contains 4 sub-factors, including individual vision development (LOR1), creativity (LOR2), effective thinking and decision-making system (LOR3), and shared vision (LOR4). The confirmatory factor model was adjusted by using modification indices to make it more complete in order that the statistics values would be acceptable, the suitability and accuracy of the model were also examined by using the variable weight method, and R-Squared (R^2) was employed to investigate the covariance. The analysis results are displayed in Figure 1 and Table 3

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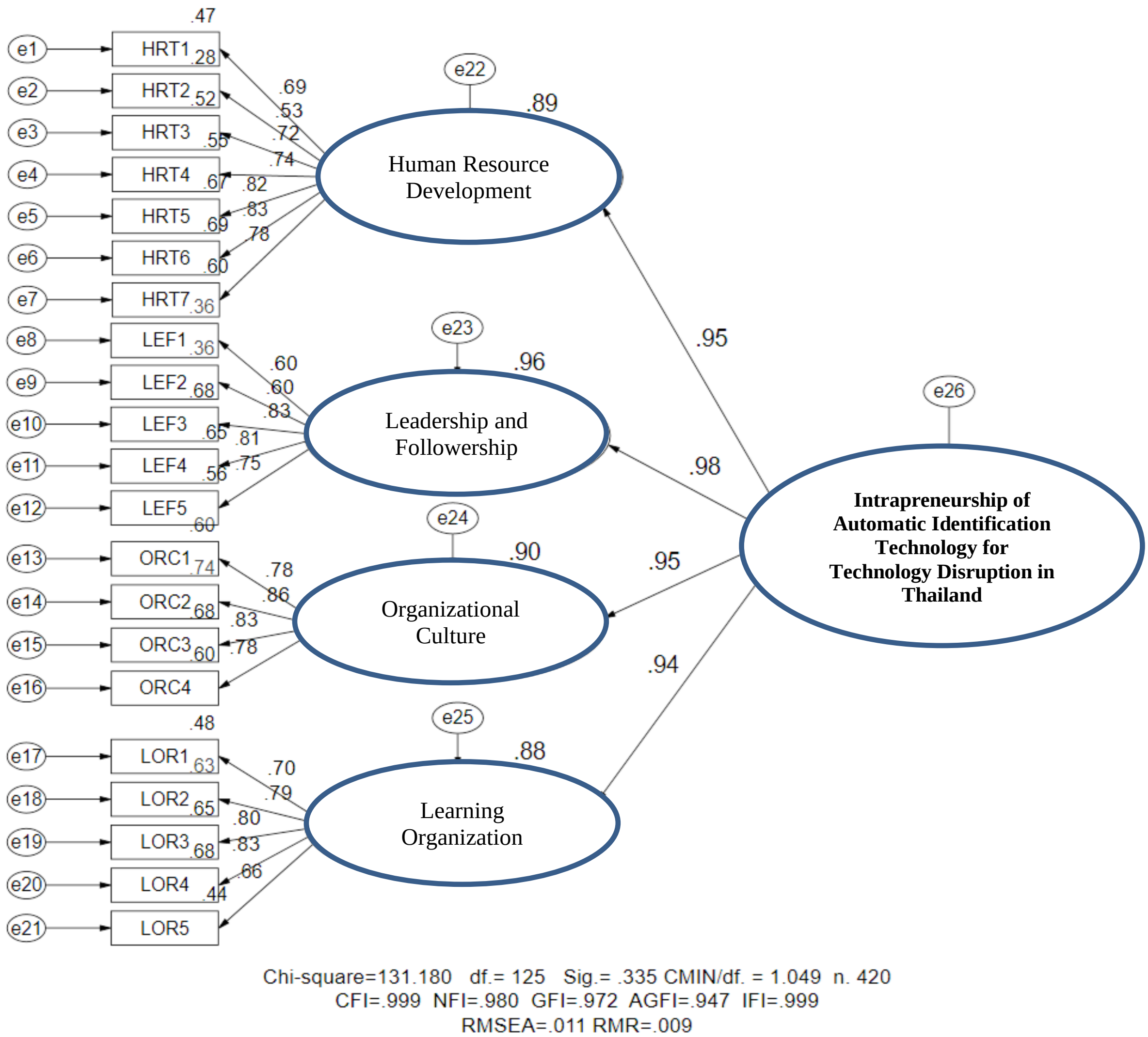

Figure 2 Confirmatory factors of suitable development model for intrapreneurship of automatic identification technology to cope with technology disruption in Thailand (Source: Paitoon, 2022)

Table 4 Statistics displaying the examination of the goodness of fit of suitable development model for intrapreneurship of automatic identification technology to cope with technology disruption in Thailand

Indices	Criteria	Results	Conclusion	References
Chi –Square = 131.180	df. = 125.0			
Sig.	> 0.05	0.335	Acceptable	Hair et al. (2006), Bollen (1989) and Sorbon (1996)
CMIN/df.	< 2.0	1.049	Acceptable	Bollen (1989), Diamantopoulos & Siguaw (2000)
GFI	> 0.80	0.972	Acceptable	Hair et al. (2006), Browne and Cudeck (1993)
AGFI	> 0.80	0.947	Acceptable	Durande-Moreau an Usunier(1999),Harrison walker(2001)
NFI	> 0.90	0.980	Acceptable	Hair et al. (2006) , Diamantopoulos & Siguaw (2000)
IFI	> 0.90	0.999	Acceptable	Hair et al. (2006) , Mueller (1996)
CFI	> 0.90	0.999	Acceptable	Hair et al. (2006) , Diamantopoulos & Siguaw (2000)
RMR	< 0.05	0.009	Acceptable	Diamantopoulos , Siguaw (2000)
RMSEA	< 0.05	0.011	Acceptable	Hair et al. (2006), Schumacker & Lomax (2010)

In Figure 2 and Table 4, the results of the confirmatory factor analysis of a suitable development model for intrapreneurship of automatic identification technology to cope with technology disruption in Thailand, after adjusting the error between the two types of variables using modification indices, revealed that the measurement model is consistent with the empirical data at a satisfactory level, with a statistical significance level of 0.05, a Chi-Square value of 131.180/df.= 125.0/Sig.=0.335 and CMIN/df.= 1.049 which is in compliance with the ideas of Hair et al. (2006), Bollen (1989), and Sorbon (1996). To conclude, after the measurement model adjustment, it was found that all the seven goodness of fit indices and related statistics values met the determined criteria as described below.

1. The Comparative Fit Index: CFI value was 0.999 which was higher than 0.90, and it corresponded to the theory of Hair et al. (2006) which stated that the recommended CFI should be 0.90 or higher to display that the measurement model is consistent with the empirical data.

2. The Goodness of Fit Index: GFI. value was 0.972 which was higher than 0.90 and it was in harmony with Hair et al. (2006) and Muller (1996) who proposed that the GFI value should be 0.90 or higher to indicate that the measurement model is consistent with the empirical data.

3. The Adjusted Goodness of Fit Index: AGFI value was 0.947 which was higher than 0.80 and it was in compliance Durande-Moreau and Usunier (1999) who stated that the AGFI value should be 0.90 or higher, or over 0.80 (Gefen et al, 2000) to show that the measurement model is consistent with the empirical data.

4. The Root Mean Square Error of Approximation: RMSEA value was 0.011 which was lower than < 0.05 and it was corresponding to the theory of Hair et al. (2006), Brown and Cudeck (1993), which stated that a recommended RMSEA value should be lower than 0.05, or between 0.05-0.08 to show that the measurement model is consistent with the empirical data.

5. The Norm Fit Index: NFI value was 0.980 which was higher than 0.90 and it corresponded to Hair et al. (2006), and Diamantopoulos & Siguaw (2000) who proposed similarly that a recommended value of Norm Fit Index should be over 0.90 to indicate that the measurement model is consistent with the empirical data, according to

6. Incremental Fit Index: IFI value was 0.999 which was higher than 0.90, and it was in compliance with the theory of Hair et al. (2006) which indicated that the recommended value of Incremental Fit Index should be over 0.90 to show that the measurement model is consistent with the empirical data.

7. The Root Mean Square Residual: RMR value was 0.009 which was lower than 0.05, and it was in harmony with the theory proposed by Diamantopoulos & Siguaw (2000) in that the RMR should be lower than 0.05 to confirm that the measurement model is consistent with the empirical data.

Based on the analysis results, all seven goodness of fit indices were in unison with the evidence-based data. It is confirmed that the confirmatory factors of a suitable development model for intrapreneurship of automatic identification technology to cope with technology disruption in Thailand are made up of the elements of human resources development and teamwork, leadership and followership, organizational culture, and learning organizations. The factors were all in compliance with the empirical data with a level of statistical significance of 0.05, as required by the determined criteria to verify that the measurement model has validity or OK Fit Confirm.

Table 5 Results of the confirmatory factor analysis of the development model for suitable intrapreneurship of automatic identification technology to cope with technology disruption in Thailand

Factors	Observed Variables	λ	SE.	t-value	R2
Human Resource Development and Teamwork		0.95	-	-	89.0%
	HRT1 (Consistent parameters)	0.69	-	-	47.0%
	HRT2	0.53	0.07	10.761**	28.0%
	HRT3	0.72	0.09	13.622**	52.0%
	HRT4	0.75	0.09	13.900**	56.0%
	HRT5	0.82	0.09	15.332**	67.0%
	HRT6	0.83	0.09	15.508**	70.0%
	HRT7	0.78	0.08	13.840**	60.0%
Leadership and Followership		0.96	0.08	11.208	98.0%
	LEF1 (Consistent parameters)	0.60	-	-	36.0%
	LEF2	0.60	0.07	14.124**	36.0%
	LEF3	0.83	0.12	13.133**	68.0%
	LEF4	0.81	0.12	13.020**	65.0%
	LEF5	0.75	0.12	11.885**	56.0%
Organizational Culture		0.90	0.09	13.571**	95.0%
	ORC1 (Consistent parameters)	0.78	-	-	60.0%
	ORC2	0.86	0.06	19.040**	74.0%
	ORC3	0.83	0.07	17.257**	68.0%
	ORC4	0.78	0.07	16.540**	60.0%
Learning organization		0.94	0.07	12.355	88.0%
	LOR1 (Consistent parameters)	0.70	-	-	49.0%
	LOR2	0.80	0.09	15.129**	63.0%
	LOR3	0.81	0.10	15.300**	65.0%
	LOR4	0.83	0.10	15.692**	68.0%
	LOR5	0.66	0.09	12.755**	44.0%

** statistical significance level of 0.001

In Table 4, the results of the confirmatory factor analysis of the suitable development model of intrapreneurship of automatic identification technology to cope with technology disruption in Thailand demonstrate that there are four latent variables: human resource development and teamwork, leadership and followership, organizational culture, and learning organization; and twenty-one observed variables. According to the results, the coefficient of variation of each observed variable is between 0.53-0.86, or greater than 0.40 which indicates that they all meet the criteria set up (Hair et al., 2010); the values of error are between 0.06-0.12, R-Square values are between 28.0%-74.0%. When the regression coefficient of independent variables was examined, the influence lines of confirmatory factors of the development model of intrapreneurship of automatic identification technology to cope with technology disruption in Thailand are indicated. The examination result of each of the four factors can be explained as follows.

1. The factor of human resource development and teamwork consists of 7 observed variables (HRT1-HRT7). The coefficients of variation are between 0.53-0.83; the measurement errors, 0.07-0.09; and R-Square values, 28.0%-70% respectively; whereas the regression coefficient is 0.95 with the effect size of 89.0%.

2. The factor of leadership and followership comprises 5 observed variables (LEF1-LEF5). The coefficients of variation are between 0.60-0.75; the measurement errors, 0.07-0.12; and R-Square values, 36.0%-65% respectively; whereas the regression coefficient is 0.96 with the effect size of 98.0%.

3. The factor of organizational culture is made up of 4 observed variables (ORC1-ORC4). The coefficients of variation are between 0.78-0.83; the measurement errors, 0.06-0.07; and R-Square values, 60.0%-74% respectively; whereas the regression coefficient is 0.90 with the effect size of 95.0%.

4. The factor of learning organization consists of 5 observed variables (LOR1-LOR5). The coefficients of variation are between 0.66-0.83; the measurement errors, 0.09-0.10; and R-Square values, 44.0%-68% respectively; whereas the regression coefficient is 0.94 with the effect size of 88.0%.

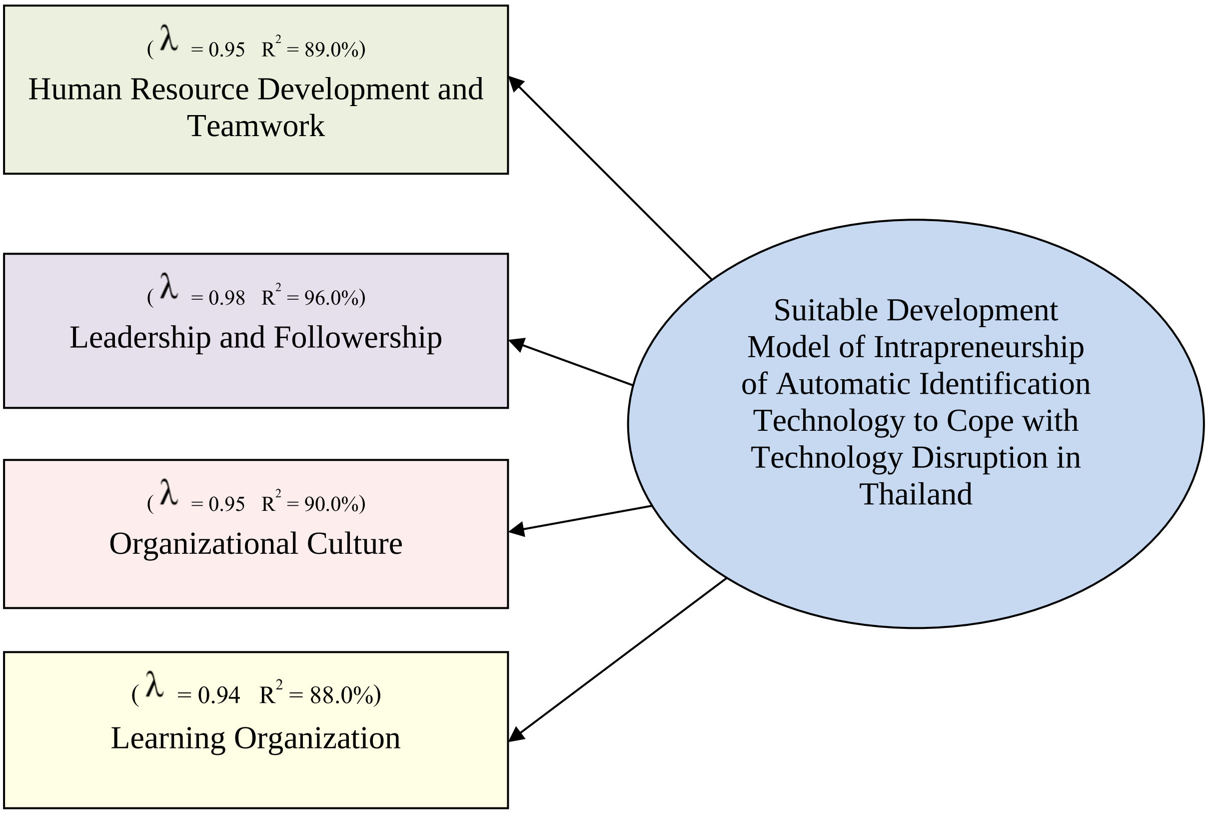

Figure 3 Results of the confirmatory factor analysis of the development model for suitable intrapreneurship in automatic identification technology to cope with technology disruption in Thailand (Source: Paitoon, 2022)

According to the confirmatory factor analysis of the development model for suitable intrapreneurship of automatic identification technology to cope with technology disruption in Thailand shown in Figure 2, it was found that the most impactful factor was that of leadership and followership which had the regression coefficient of 0.96 and the effect size of 98.0%, followed by the factor of organizational culture which displayed the regression coefficient at 0.90 and the effect size at 95.0%; the factor of human resource development and teamwork, 0.95 and 89.0%; and the factor of learning organization, 0.94 and 88.0% respectively.

Discussions

In reference to the confirmatory factor analysis of the development model for suitable intrapreneurship of automatic identification technology to cope with technology disruption in Thailand, it was found that the most impactful factor was that of leadership and followership, followed by the factors of organizational culture, human resource development and teamwork, and learning organization respectively.

As far as the factor of leadership and followership is concerned, it has the most impact on the business due to the fact that there are different job roles in an organization, including top executive staff, managers, and operation staff members. As such, leadership at different levels has an influence on work efficiency. The second most important and related factor is the organizational culture which was noted by Moorman & Miner (1998). that a leader is a person who creates an organizational culture in order to make the organization more effective.
Chief executive officers would adjust the organizational cultures in such a way that is based on their own beliefs. Thus, leadership and organizational culture are interrelated and affect each other. Besides, leadership has also a positive impact on employees' work satisfaction because leaders would assign their employees roles and responsibilities in order to achieve the wanted results and encourage the acceptance of those who attain such goals. It can be noted that the executive staff's innovation-encouraging behavior also shows a level of a leader's personal behavior which is in line with a leader's behaviors that demonstrate some of the significant elements of transformational leadership (Four I's), as proposed by Haynes, Hitt & Campbell, (2015), including (1) Idealized Influence, which refers to the way in which a transformational leader can be a role model for his or her followers and pass on new ideas. In addition, the leader can also exhibit intelligence, competence, determination, self-confidence, and ideological commitment; along with the beliefs and values that encourage unity to achieve common goals; and (2) Inspirational Motivation, which refers to the way in which a transformation leader can motivate the followers to do the things that he or she instructs to, by applying intrinsic motivation to promote positive attitudes. The transformational leader also needs to be creatively motivated, be able to convey his or her expectation to the followers in an understandable manner, and be able to present a common vision (Singchangchai, P., 2021). The research results also correspond to the study of Chutrakul Chaisena and others (Chaisena et al., 2017) in which they found that the transformational leadership of the president of

Singburi provincial administrative organization is interrelated the organizational culture of Singburi provincial administrative organization in a creative manner. To be more specific, the transformation aspects of special characteristics or personal gifts, inspirational motivation, brainpower motivation, and individuality awareness or individual interaction are correlated in a productive way. It can be confirmed that transformation leadership and organizational culture are concomitant. That is to say, they are interrelated in such a way that the two elements reinforce each other and that they have an impact on the entire organization.

Conclusion and suggestions

The purpose of the research study was to analyze and examine the confirmatory factors of the development model for intrapreneurship of automatic identification technology to cope with technology disruption in Thailand. Based on the research study results, it can be concluded as follows.

The results of the examination of confirmatory factors of a suitable development model for intrapreneurship of automatic identification technology to cope with technology disruption in Thailand revealed that there are four latent variables: human resource development and teamwork, leadership and followership, organizational culture, and learning organization; and twenty-one observed variables. According to the results, the coefficient of variation of each observed variable is between 0.53-0.86, or greater than 0.40 which indicates that they all meet the criteria set up (Hair et al., 2010); the values of measurement error are between 0.06-0.12, and the R-Square values are between 28.0%-74.0%. When the regression coefficient of independent variables was subsequently examined, the influence lines of confirmatory factors of the development model of intrapreneurship of automatic identification technology to cope with technology disruption in Thailand could be identified.

Based on the analysis results, all seven goodness of fit indices were in unison with the model evidence-based data. It is confirmed that the confirmatory factors of a suitable development for intrapreneurship of automatic identification technology to cope with technology disruption in Thailand are made up of human resources development and teamwork, leadership and followership, organizational culture, and learning organizations. The factors were all in compliance with the empirical data with a level of statistical significance of 0.05 as required by the determined criteria to verify that the measurement model has validity or OK Fit Confirm.

In conclusion, according to the confirmatory factor analysis of the development model for suitable intrapreneurship of automatic identification technology to cope with technology disruption in Thailand, it was found that the most impactful factor was that of leadership and followership which had a regression coefficient of 0.96, and the effect size of 98.0%, followed by the factor of organizational culture which displayed the regression coefficient at 0.90 and the effect size at 95.0%; the factor of human resource development and teamwork, 0.95 and 89.0%; and the factor of learning organization, 0.94 and 88.0% respectively at the statistical significance level of 0.001.

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New knowledge and the effects on society and communities

The confirmatory factors of a suitable development model for the intrapreneurship of automatic identification technology to cope with technology disruption in Thailand in this research study can be used as a guideline for automatic identification technology companies and other businesses to encourage the intrapreneurship of their employees and to revolutionize the employees' ideas in order to prepare themselves to work for their organizations in an enthusiastic manner and to enable themselves to be the products of satisfaction and benefits to their organizations. The factors discovered can be effective strategies to deal with competitiveness in the rapidly-changing world. The proposed of intrapreneurship model has practical implication. The shifting business environment to the sustainability despite facing competitors determine survival businesses. Hence, the organizations need to adjust their internal capability by configuring resource into process routines for process innovation. In other words, they can be used to cope with any possible change and put forward the organizations to handle the technological competition in the future and to find creative solutions to problems in an effective fashion.

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Accounting Knowledge and Skill Development of Cooperative Employees in Chiangmai Province

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Abstract

This research was a qualitative research that used in-depth interviews and purposive sampling by convenience sampling, for categorizing problems, analyzing associations, an analysis of changes in accounting record accuracy and quantitative research; using a questionnaire to assess knowledge and understanding of the participants before and after the training, as well as a developmental assessment form to check the accuracy of accounting preparation of cooperative employees both before and after the workshop, research aimed at improving accounting knowledge for cooperative employees in Chiang Mai and cooperative stakeholders to create transparency and reduce social inequality. Therefore, the research team summarized the issues of the study, divided into 2 parts as follows: the results of the first part of the study show the results of the development of accounting skills and professional ethics of 800 cooperative employees in Chiang Mai, and it found that the participants' scores on knowledge and understanding of accounting after the training increased by 12.34. Moreover, From the workshops and practical trials, it was found that cooperative employees were able to record accounts and prepare financial statements correctly after additional training; from the accuracy score of 30 percent to 65 percent, which represents the ability to prepare accounts more accurately for 35 percent. For the second part, the results of the training to develop knowledge and understanding about the cooperative system of 500 stakeholders showed that their knowledge and understanding increased by 15.60%. In addition, there was an economic valuation of the research project's worthiness conducted for the future allowance valuation method, in which the result of the study found that the economic value for the accounting skill development was 1,659,660.50 baht.

Keywords: Cooperative account, Cooperative staff, Stakeholders, Transparency, Social inequality

Introduction

A cooperative is an independent organization of people who voluntarily become a member or a group of stakeholders to meet their economic, social and cultural needs and goals through shared ownership and democratic service. In Thailand, cooperatives have been classified into 2 regions and 7 types as follows: 1) agricultural cooperatives consisting of 3 types, namely agricultural cooperatives, fishery cooperatives, and settlement cooperatives; and 2) non-agricultural cooperatives consisting of 4 types, namely saving cooperatives, service cooperatives, shop cooperatives, and credit union cooperatives (Cooperative Promotion Department, 2020)

However, focusing mainly on Chiang Mai province, there are 282 cooperatives including 177 agricultural cooperatives and 105 non-agricultural cooperatives where most employees lack knowledge and understanding in the operation, as a results, there is an accounting problem – no document management, record of receipts, and systematic accounting. Consequently, the results of employee operations are inefficient, causing corruption in cooperative circles in each area (Chiang Mai Provincial Cooperative Office, 2020)

From the study of the above information, it was found that employees in some areas lack accounting knowledge so they cannot record receipts and payments correctly and cause errors in the preparation of financial statements, that if the cooperative employees have true knowledge, understanding, and skills in accounting, they will be able to carry out their assigned tasks efficiently, record the account correctly, clearly show the operating results as well as instill professional ethics by building an attitude and honesty to prevent potential fraud. For this reason, the researcher is interested in developing the accounting skills of cooperatives in the Chiang Mai area in order to develop manpower and enhance sustainable international competition.

Objectives

1. To design a training manual for developing accounting knowledge and skills suitable for cooperative employees in Chiang Mai.
2. To develop knowledge and skills in accounting for cooperative employees in Chiang Mai
3. To transfer knowledge on the ideology, principles and methods of cooperatives to stakeholders to create transparency and reduce social inequality.
4. To assess the economic added value of the cooperatives in Chiang Mai.

Literature Review

Accounting system is a system for collecting information and documents used in accounting records and reports; including operation methods and tools and equipment, in order to be able to provide necessary information to management for decision-making and present information to related third parties (Boonmeesuwan, 2004; Suwan-As, 2011) – it can be summarized as follows: 1) transaction analysis 2) recording the entry in the preliminary book 3) posting from primary to final book or ledger 4) account adjustments at the end of the period 5) preparation of financial statements, and 6) closing accounts (Hirunrasmee et al, 2016; Sachakorn & Srijanphet, 2009)

Cooperative accounting system is an accounting system, recognition, and the preparation of financial statements for the organization of persons voluntarily grouped together to operate enterprises of which they are jointly owned. (Cooperative Promotion Department, 2020; Wichaidit & Kositkanin, 2021; Luathanon, Wittayaphum & Prempanichnukul, 2014; Kerdprakob, 2011)

A cooperative system is an organization of persons voluntarily grouped together to conduct a democratic joint enterprise to meet the common economic, social and cultural needs and hopes (Cooperative Promotion Department, 2020).

The added value in economics is the analysis of economic value. It is a valuation of a products having no market price, most of which are natural resources and tourist attractions. The main methods of the analysis are Market Valuation, Reveal preference, and Stimulated valuation, which simulation is the most popular method (Thaicharoen, 2010)

Economic Value Added is an economic value analysis using Individual Travel Cost Method (ITCM) and Stimulated Valuation and using Contingent Valuation Method (CVM) model, which from the methods mentioned above Simulation Method is most popularly employed (Thaicharoen, 2010; Phomwong, 2014)

Conceptual Framework

This study defines a conceptual framework using principles of learning process design called ADDIE Model as shown in the following figure.

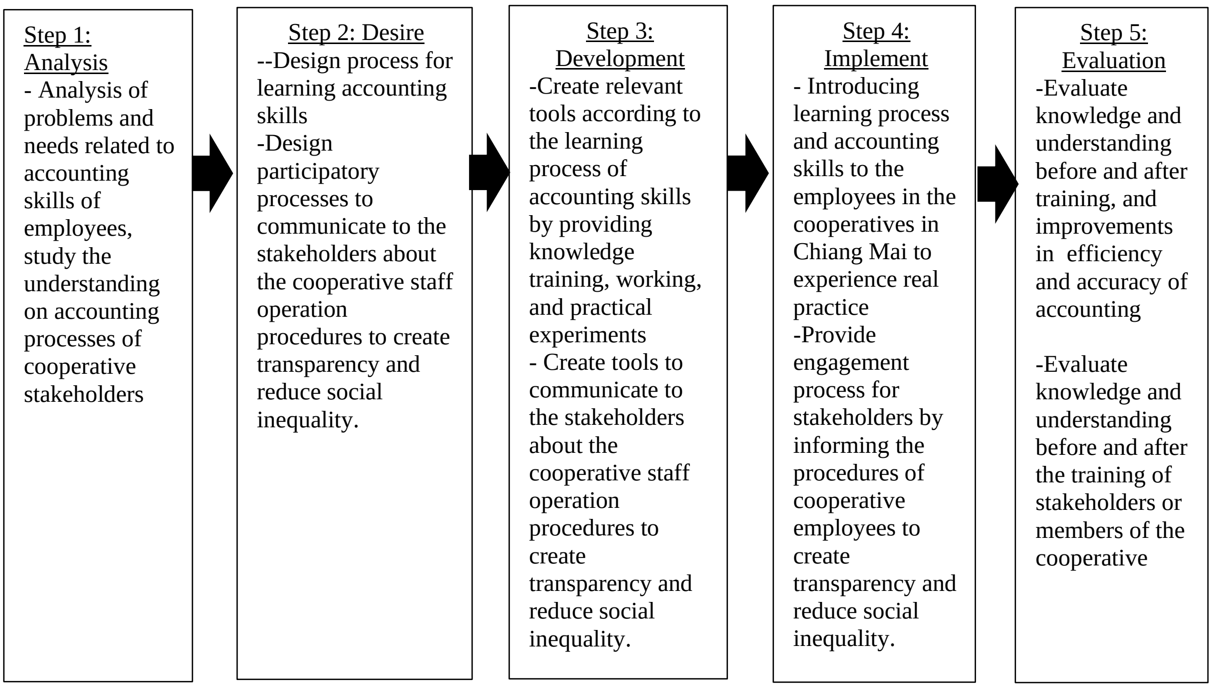

Figure 1 Conceptual framework for research on the development of accounting knowledge for cooperative employees in Chiang Mai Province (Source: Yeesoonsam et al., 2022)

Methodology

1. Population and sample

The sampling used in this study was selected by purposive random sampling with 800 cooperative employees including 500 cooperative stakeholders.

2. Educational tools

This tool is used in the following activities: activity 1, study and analyze the situation to assess the accounting potential of cooperative employees in which the informants are involved in the operation, the cooperative employees in Chiang Mai; activity 2, organize a group forum to brainstorm participative opinions between the researcher, informants, and the 800 research samples on the problems and needs of the cooperative accounting and financial management; activity 3, design a book of accounts suitable for cooperatives; activity 4, conduct training to provide knowledge on accounting preparation to encourage the employees to be aware of the importance and the benefits of accounting; activity 5, organize a training workshop and practical training for cooperative employees; activity 6, test, determine, and evaluate the results of cooperative accounting; and activity 7, organize a group forum to train and educate stakeholders on cooperatives and accounting for stakeholders or members to create transparency and reduce inequality in a society, processing, report preparation, and dissemination of research results to cooperatives

1) Group discussion is a tool used to study and analyze the situation of cooperatives. This group discussion is a tool used in Activity 1, study and situation analysis of the cooperatives to assess the potential of participatory accounting between management, staffs, and members of the cooperative in Chiang Mai, in order to estimate the capability of the cooperation between the management, employees, and stakeholders to summarize the issues and the need for resolutions evaluate the readiness of cooperative accountants

2) Focus group is a tool used in small group discussion activities. It is a tool used in activity

3) In-dept interview is a tool used in in-depth interviewing activities. It is a tool also used in activity 2, the organization of a group forum to brainstorm ideas on problems and needs for accounting and financial management of cooperatives in Chiang Mai.

4) Questionnaire is a tool used in the questionnaire activities before and after the training. It is a tool used in the following activities: activity 4, a training to provide accounting knowledge to cooperative employees to have knowledge and understanding about the meaning of accounting, forms, procedures of accounting, benefits, and the importance of accounting; and activity 7, a training to educate the stakeholders or members that the researchers has set the evaluation form

5) Training on accounting knowledge in Activity 4, the training on accounting to help the employees to realize the importance and the benefits of accounting in order that they can gain knowledge and understanding of the correct system according to generally accepted accounting standards; and activity 7, the training to educate stakeholders of members to provide them with knowledge and understanding of the cooperative system and instill the idea to establish the participation and common ownership including to create transparency and reduce social inequality

6) Workshops and practical experiments in activity 5, organizing workshops and practical training for cooperative employees

7) Evaluation of the practicality from the workshop and the practical experiment in activity 6, testing and evaluating the use of the accounting system for cooperative employees by testing the correctness of the preparation and summary of financial statements, which the researcher conducted an evaluation before and after the practical training.

3. Statistics used in data analysis

Data analysis uses a combination of both quantitative and qualitative methods. Qualitative data analysis methods use classification, correlation analysis, analysis of changes in accounting accuracy for quantitative data analysis: percentage, frequency, average, and the correlation analysis of the data using Rating Scale estimation standard.

Qualitative data analysis uses classification, correlation analysis, an analysis of changes in accounting accuracy, and the evaluation of development before and after the workshop. Questionnaires and assessments were quality controlled with Content Validity by 3 experts, with an IOC of more than 0.5. The total consistency of the questionnaire was 0.8. The quantitative data were analyzed along with descriptive statistics by using statistical tools to process data, namely percentage, frequency, mean and correlation analysis using the standard of rating scale estimation

4. Economic valuation of accounting education training

It is an economic assessment of the economic value of training to develop accounting knowledge and skills, and the promotion of professional ethnics for employees by employing Contingent Valuation Method (CVM); estimating the relationship of willingness to pay with variables including gender, status, age, education level, average, monthly income, work experience, and knowledge scores after training (Thamphithak & Unthong, 2011); and using Ordinary Least Square: OLS in the form of Multiple regression equation that can show the relationship between the variables as follows.

$$\mathbf{WTP_i = a + b_1SEX_i + b_2STA_i + b_3AGE_i + b_4EDU_i + b_5INC_i + b_6EXP_i + b_7KNO_i}$$

where WTPi is the willingness to pay for the accounting training of person i (Baht)

SEXi is the gender of person i.

STAi is the status of person i.

AGEi is the age of person i (years).

EDUi is person I's level of education, represented by the number of years of education.

INCi is the income of person i (Baht/month)

EXPi is the work experience of person i (years).

b7KNOi is person I's post-training knowledge score (out of 50 points).

Note: Education is the number of academic years of sample i, divided into 4 levels as follows:

EDUi = 12 means high school level / Vocational

EDUi = 14 means Diploma/High Vocational

EDUi = 16 means a bachelor's degree or equivalent.

EDUi = 18 means postgraduate level

Results

From a qualitative research study by means of in-depth interviews of executives of cooperatives in Chiang Mai Province, it was found that cooperatives had 2 main problems in their operations as follows:

1. For the structure of the organization, the problems consist of internal structure flaws such as cooperative members lack participation and ownership, and some of the executive committees still do not have enough knowledge and competence causing some cooperatives to lack clear policy formulation leading to non-transparency; and external structures, such as the lack of network connections to create the power of negotiations.

2. In terms of management efficiency, it was found that cooperatives in some areas still lacked planning, evaluation control. and good personnel development

From the implementation of the development of accounting knowledge for cooperative employees in Chiang Mai by training to provide knowledge and workshops on accounting and to educate stakeholders or members of the cooperative including economic value-added analysis results, the results of the study can be summarized into 3 parts as follows:

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1. Results of the design and development of knowledge and skills in accounting for cooperative employees in Chiang Mai

Result from the design a training manual to development of knowledge and accounting skills for 800 cooperative employees in Chiang Mai, the training to provide knowledge along with workshops was held for cooperative employees and committee performing duties in accounting so that they could obtain more knowledge and understand accounting more correctly. Additionally, there were also the workshops to train the cooperative employees to be able to record accounts and prepare financial statements correctly in accordance with financial reporting standards to assess changes before and after the workshop, and there were a manual to be a model to learn accounting skills and an operational manual used among the cooperative employees in Chiang Mai as well as those working in other areas, businesses, or organizations.

Cooperative Receiving-Paying Account Book
cooperative name..................Sample............period.....April, 2021.......

				Assets					Liabilities		owner's equity		Receive			Expense					
Date	receive (Thb.)	Pay (Thb.)	Balance (Thb.)	Cash / Bank	product	Debtor	Other current assets	non-current assets	creditor	accrued expenses	share capital	retained earnings	sell products	get stock capital	other income	cost of sales	utility bills	office supplies	meeting allowance	reception fee	other expenses
1.4.2021	500.00		500.00	500.00							500.00										
2.4.2021		200.00	300.00	-200.00	200.00																
5.4.2021		50.00	250.00	- 50.00													50.00				
9.4.2021	300.00		550.00									100.00	300.00			200.00					
Total	800.00	800.00		250.00	200.00						500.00	100.00	300.00			200.00	50.00				

Figure 2 Cooperative account book
(Source: Yeesoonsam et al., 2022)

Table 1 Shows the level of knowledge and understanding of accounting of cooperative employees, representing Mean ($\bar{x}$) and standard deviation (S.D.) before and after training

Issues	Before training			After training		
	$\bar{x}$	S.D.	Level	$\bar{x}$	S.D.	Level
1) Able to analyze trade transactions and recognize income-expenses correctly	2.18	0.39	low level	4.42	0.50	high level
2) Able to analyze trade transactions and recognize income-expenses in its entirety	2.26	0.44	low level	4.10	0.42	high level
3) Able to accurately summarize the performance of the cooperative in accordance with generally accepted accounting principles	3.24	0.74	moderate	4.46	0.58	high level
4) Able to accurately summarize the financial position of the cooperative in accordance with generally accepted accounting principles	3.30	0.74	moderate	4.24	0.52	high level
5) The cooperatives have an appropriate accounting system the errors can be quickly checked and fixed	3.38	0.70	moderate	4.44	0.58	high level
6) Cooperatives have effective internal control systems	3.34	0.69	moderate	4.28	0.50	high level
7) The accounting system of the cooperative is transparent, clear, and verifiable	3.34	0.72	moderate	4.48	0.61	high level
8) Cooperatives disclose information about their financial reports to stakeholders (cooperative members)	3.32	0.71	moderate	4.34	0.52	high level
9) The financial statements of cooperatives are prepared in accordance with the International Education Standards Framework for professional accountants and rules according to relevant accounting standards	3.38	0.70	moderate	4.42	0.54	high level
10) The financial statements of cooperatives are properly presented and do not contain any material misstatement.	3.36	0.69	moderate	4.26	0.63	high level

For Table 1 Shows the level of knowledge and understanding of accounting of cooperative employees, representing Mean ($\bar{x}$) and standard deviation (S.D.) before and after training, It could be concluded that from the test results before and after the accounting knowledge training for 800 cooperative employees, the average scores on various issues from 10 questionnaires, each measuring knowledge and understanding from the score range of 1- 5 points, which is divided into the lowest level to the highest level, so the maximum score of the assessment is 50 points. From the mean and standard deviation analysis, it was found that the knowledge mean after training was higher than before training, demonstrating increasing knowledge and understanding after undergoing accounting training of the employees. Each standard deviation measured was small indicating that the measured data is close to the mean shows the accuracy of the experiment.

Table 2 Assessment of accounting knowledge before and after the training

Experiment	**N**	**μ**	**S.D.**
Before the training	800	31.10	5.59
After the training	800	43.44	2.70

For table 2, in summary, the results of the pre-training and post-training test for 800 employees in Chiang Mai showed that the post-training knowledge assessment value was higher than before the training – the pre-training knowledge assessment was 31.10 and the post-training knowledge assessment was 43.44. – the participants had increased knowledge in accounting and finance by 12.34.

Table 3 Assessment of cooperative accounting capacity before and after the workshop

Accuracy of Cooperative Accounting	**Assessment results before training**	**Evaluation results after training**	**changes**
Accuracy rate of cooperative accounting and financial statements	30 percent	65 percent	Increase 35 percent

From Table 3, from the evaluation of learning and practical practice of cooperative accounts in Chiang Mai by examining the accuracy of accounting records and financial statements from a full score of 10 (comprising the accuracy of accounting and financial statements) 2 points for revenue recording, 2 points for accuracy in expense recording, 2 points for accuracy in asset recognition, 2 points for accuracy in preparing the statement of financial position, and 2 points for accuracy in managing the income statement), the researcher conducted the evaluation before and after the workshop and were able to summarize the accuracy of accounting from a total score of 3 points, equivalent to 30 percent, a total score of 6.5 points, equivalent to 65 percent, considering as increasing by 35 percent. Therefore, if the cooperative employees have continuous practice until they become proficient in accounting records and summary of financial statements, they will have more accurate performance, be more reliable, know the real performance, and be able to use the accounting information to analyze, control, and formulate various policies appropriately.

2. The results of the development of knowledge and understanding of the ideology, principles and methods of cooperatives for stakeholders to create transparency and reduce social inequality

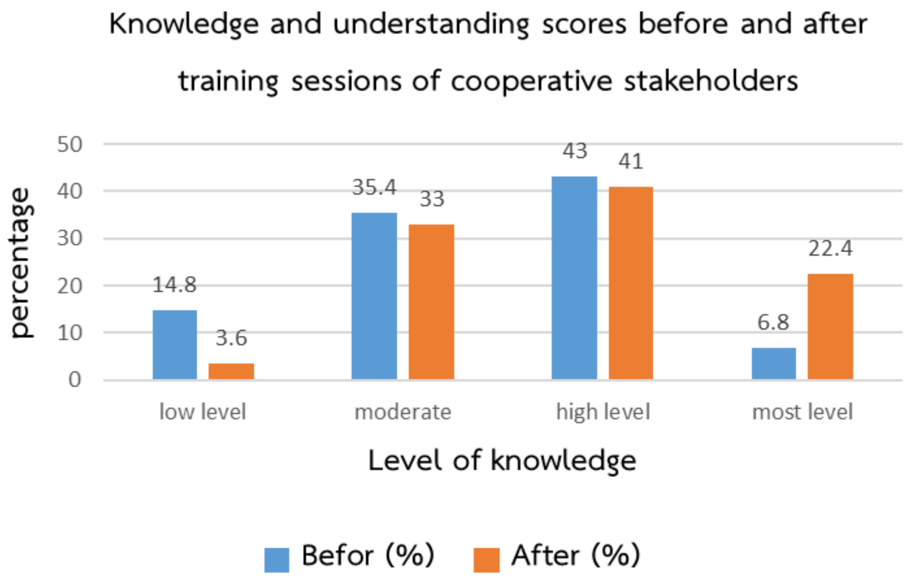

Figure 3 Assessment before and after the cooperative stakeholders attend the training (Source: Yeesoonsam et al., 2022)

A workshop to strengthen the roles and duties to participate in cooperative operations for stakeholders in Chiang Mai is the first step in mobilizing their participation was the way to provide information of cooperatives that should be known as a basis for decision-making to participate in various activities organized by each cooperative. Also, it created a feeling which when each stakeholder was aware of the importance of cooperatives, and knew the scope of their authority to act, they would be interested in participating in the process of the cooperative's operations, in addition to the co-benefit process. For example, they would take part in the decision-making process to select an operating committee, or in meetings to examine the operations of the cooperative by stating questions, etc. Eventually, when stakeholders had a better understanding about the cooperative's affairs and more participation, it would increase the enthusiasm of the cooperative staff, which would ultimately benefit the business of the cooperative.

3. The results of the economic value-added analysis of the development of competency and accounting skills for cooperative employees in Chiang Mai

Table 4 Estimated results of the coefficient of willingness to pay for accounting training

Variable	Symbol	Coefficient	Standard deviation	t - statistic	Significant
Constant	a	2,342.708	164.006	14.284	0.000***
Gender	b_1	3.502	13.402	0.261	0.794
Status	b_2	-23.634	11.388	-2.075	0.038**
Age	b_3	-8.396	7.340	-1.144	0.253
Education	b_4	-10.560	4.592	-2.300	0.022**
Income	b_5	3.723	6.563	0.567	0.571
Experience	b_6	-1.956	4.457	-0.439	0.661
Knowledge score	b_7	-1.549	3.345	-0.463	0.643

Note *** There was a correlation with the variable at a significant level of 0.01
** There was a correlation with the variables at a significant level of 0.05

From table 4, when considering the significance to find independent variables that were related to dependent variables, it was found that status and education were related to the willingness to pay for accounting training at the significant level of 0.05, showing that the two independent variables were associated with the dependent variable for 95 percent of confidence level. However, for the other variables such as gender, age, income, experience and knowledge, they were not related to the dependent variable or the consent to pay for the training at a confidence level of 95 percent.

Therefore, the researcher reworked the correlation analysis of the above variables by considering only the independent variables correlated with the dependent variables, and the results were as follows.

Table 5 Estimated results of the coefficients of willingness to pay for attending competency development and accounting skill training when using single status as a base;

Variable	Symbol	Coefficient	Standard deviation	t - statistic	Significant
Constant	a	2,244,511	62.028	36.186	0.000***
Status	b_2	-28,737	10.477	-2.075	0.006***
Education	b_4	-9,405	4.353	-2.161	0.031**

Note *** There was a correlation with the variable at a significant level of 0.01
** There was a correlation with the variables at a significant level of 0.05
Source: From the calculation, substituting the coefficient obtained from the calculation into the willingness to pay equation as follows

$$WTP_i = 2,244,511 – 28,737STA_i \; -9,405EDU_{i'}$$

From Table 5, it was found that the status variable was correlated with the willingness to pay at 99%, meaning that on average, those who were single are willing to pay than other statuses for 28,737 baht. In addition, the educational variable was correlated with willingness to pay at 95%, meaning that if participants had an extra year of training, their willingness to pay for training would decrease by 9,405 baht

To consider differences in willingness to pay at different statuses, the researcher re-established the relationship by changing the base variable.

Table 6 Estimated results of the coefficients of willingness to pay for attending competency development and accounting skill training using marital status

Variable	Symbol	Coefficient	Standard deviation	t - statistic	Significant
Constant	a	2,172,541	57.408	37.844	0.000***
Status	b_2	14,579	9.673	1.507	0.132
Education	b_4	-9,531	4.429	-2.152	0.032**

Note *** There was a correlation with the variable at a significant level of 0.01

** There was a correlation with the variables at a significant level of 0.05

Source: From the calculation, substituting the coefficient obtained from the calculation into the willingness to pay equation as follows

$$WTP_i = 2,172.541 – 9,531EDU_i$$

From Table 6, when considering the level of significance, the status variable had no relationship with willingness to pay, meaning that, on average, people with marital status had no effect on willingness to pay for training. However, the educational variables were correlated with willingness to pay at a 0.95 confidence level, meaning that if the participants had an additional year of study, their willingness to pay for the training would decrease by 9,531 baht. When setting variables of widowed, divorced, separated status as base, the study results will be as follows:

Table 7 Estimated results of the coefficients of willingness to pay for attending competency and skill development training in accounting using widow, divorce and separated status as a base

Variable	Symbol	Coefficient	Standard deviation	t - statistic	Significant
Constant	a	2,127,870	62.028	36.186	0.000***
Status	b_2	33,867	13.296	2.547	0.011**
Education	b_4	-10,686	4.439	-2.407	0.016**

Note *** There was a correlation with the variable at a significant level of 0.01
** There was a correlation with the variables at a significant level of 0.05
Source: Calculated by substituting the calculated coefficients into the willingness to pay equation, the results are as follows.

$$WTP_i = 2{,}127{,}870 + 33{,}867STA_i - 10{,}686EDU_i$$

From Table 7, it was found that the status variable was associated with willingness to pay at the 95% confidence level, meaning that, on average, those who were widowed, divorced, and separated were more likely to pay more than any other status: equals 33,867 baht. In addition, the educational variable was correlated with willingness to pay at the 95% confidence level, meaning that if participants had an extra year of training, their willingness to pay for training would decrease by 10,686 baht.

When considering the data of 800 participants, it was found that 255 of the participants were single, 461 were married, and 84 were widowed/divorced/separated, which could bring such data and the mean of Education, which is equal to 13.10 years, to find the economic value of attending training to develop competencies and skills in accounting as follows:

The economic value of the training for 255 single participants is (2,244,511 – 28,737 - 9,405(13.10))*255 = 533,604.97 baht.

The economic value of the training to develop competency and accounting skills of 467 participants with marital status equals to (2,172,541 – 9,531(13.10))*467) = 956,268.85 baht.

The training's economic value for widowed/divorced/separated, 84 persons in total, is (2,127,870 + 33,867 - 10,686(13.10))*84 = 169,786.89 baht.

Therefore, the economic value of this training is equal to 1,659,660.50 baht.

Discussions

From the study of cooperatives' problems in Chiang Mai, most of the problems encountered was that the employees lacked knowledge and understanding in accounting operations, and there was no systematic accounting. This was consistent with the results of Kerdprakob's study (2011), a study on the problems of accounting cooperatives in Ang Thong. It was found that the highest average problem in personnel aspect was that the accounting officers had inadequate knowledge and understanding on financial matters, considered as moderate problem. The following problem was that the officers lacked motivation to perform duties due to low compensation, also considered as moderate problem. Thus, the recommendations for cooperative Executives in Ang Thong to increase efficiency in work operations are as follows: 1) have the Department of Auditing provide trainings to educate the accounting officers 2) consider more compensation for the officers so that they could have more incentive to work.

From training to provide knowledge on accounting to cooperative employees assessed before and after the training by using a questionnaire, it was found that the knowledge after training was higher than before the training – the pre-training knowledge assessment was 31.10 and the post-training knowledge assessment was 43.44. In conclusion, the participants' knowledge about accounting and finance increased by 12.34, and the accuracy to summarize the accounts increased by 35%. Therefore, if cooperative employees received continuous training and practice until they became proficient in accounting records and summary of financial statements, their performance would be more accurate and reliable – which was similar to the study of Wichaidit & Kositkanin (2021), guidelines for developing accounting potential that affect the success of cooperative accountants in Thailand. The results indicated that accounting potential including professional knowledge had a positive effect on the success of the accountant's work in Thailand in every aspect such as achieving goals, procurement and the use of resources, operational process, and satisfaction of all parties, so, cooperative accountants should focus on the potential in all 5 areas for use in their work, and should develop potential to enhance other relevant competencies to be applied in practice, leading to good performance in further operation. Furthermore, it was related to the study of Luethanom & Wittayaphum & Prempanichnukul (2014) that the processes to classify accounting in terms of analysis and interpretation had relationship and positive impact on overall financial reporting performance. Hence, cooperatives should improve the accounting process and promote the process of personnel development to have more knowledge of accounting information.

From the results of the assessment of stakeholders' knowledge and understanding about cooperatives, for the stakeholders in Chiang Mai, before and after training, it was noticeable that there was a change in the participants' training scores – after receiving the training, there were those having more scores and reaching a very good level, showing that the stakeholders had a greater understanding on cooperative business operations. When each stakeholder was aware of the importance of cooperatives and the scope of the powers and duties, they would have more interest to participate in various stages of cooperative operations in addition to the co-benefit process. For instance, the stakeholders would participate in the decision-making process for the operating committee or in meetings to examine the operations of the cooperative through questioning, etc. This was in accordance with Malai (2015), who conducted a study on the factors affecting stakeholders' participation in business operations of Prao Agricultural Cooperative Limited, Phrao District, Chiang Mai. The result showed that important factors involved in business operations sorted from highest to lowest average were: a sense of belonging to the cooperative, the convenience to do business with the cooperative, reward (dividend/average cash back), staffs' services, security, suitable location, credibility of operating directors as a source of funds (loan), and the publicity of information about cooperative and welfare.

When considering the significance to find the independent variable correlated with the dependent variable, it was found that there were differences in willingness to pay at different statuses. When considering the data of 800 participants, it was found that 255 of the participants were single, 461 were married, and 84 were widowed/divorced/separated, which could bring such data and the mean of Education, which is equal to 13.10 years – the training for development of competency and accounting skills of 467 persons with marital status equals (2,172.541 – 9,531(13.10))*467 = 956,268.85 baht, which is a tool to help analyze the project's worthiness by the same method. with the study of Areerat Thaicharoen (2010). She has studied Economic valuation of the College of Music Mahidol University with the objective to evaluate the economic value by using the Individual Travel Cost Method: ITCM. The results of the study showed that the factors related to the number of trips attend music performance at the College of Music, Mahidol University, including the total cost of traveling and education level by the College of Music's economic value in 2008 was 38,976,710.77 baht

Conclusion and suggestions

From the above research results, it can be concluded that most of the cooperative employees lack accounting knowledge because they do not graduate directly in accounting. In addition, there is no experience in accounting in accordance with the correct rules according to financial reporting standards. As a result, the accounting record and the preparation of financial statements are inefficient, and cannot be used in appropriate economic decision-making of cooperatives. In consequence, if cooperative employees have increased knowledge and understanding of accounting after the workshop and be able to continuously practice in accounting in accordance with financial reporting standards, the financial statements of cooperatives in Chiang Mai will be more transparent and more reliable, and it will allow the Cooperative Board to bring such information to be used in economic decision making and planning for the future more properly. Besides, when the stakeholders learn more about the cooperative system and its importance, they will understand their role and are aware of their involvement, creating transparency in the cooperative system and sustainably reducing social inequality.

New knowledge and the effects on society and communities

Cooperatives in Chiang Mai attending the research project learned about "Cooperative Accounting System" – how to set up an account and the preparation of financial statements – which gives cooperative employees sufficient knowledge and competence to properly prepare accounts and financial statements in accordance with financial reporting standards, drawing more transparency and reduce errors in accounting because the employees will honestly record the accounts according to correct, complete documentary evidence, and reliably summarize the financial statements.

Cooperatives in Chiang Mai participating in the research project learned about "Cooperative accounting system" along with accounting methods and preparation of financial statements, through 5-step ADDIE model process: 1) problem analysis or causes of errors 2) appropriate system design 3) knowledge development and Practice 4) operation and 5) evaluation when performing a sequence of steps. These procedures are effective because they identify the issues and the most appropriate solutions to the circumstances to maximize the benefits in developing accounting knowledge, skills and ethics of the employees, which will enable them to have sufficient knowledge and abilities to prepare accounting and financial statements accurately in accordance with financial reporting standards. That will be the source of transparency and reducing errors occurred from accounting. The employees will honestly record the accounts according to accurate, complete documents and evidence; reliably summarize financial statements; and be as a model for other cooperatives in other areas.

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Wellness and Health Tourism in Thailand: a Chinese Visitors' Perceptions of Transcultural Nursing

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Abstract

The researchers conducted a quantitative study in Thailand with 520 Chinese visitors who had used Thailand's health and medical services. The precise number is unknown, but there are numerous. The effect size f = 0.25, error probability = 0.01, and power of test (1 -) = 0.99 were calculated using G*Power (Faul et al., 2013). To investigate transcultural nursing perceptions during health and medical tourism. A five-point Likert scale was used to score 32 observed variables in an accidental sampling. Exploratory Factor Analysis (EFA) was used to analyse the data and determine how visitors perceived transcultural nursing. The outcomes demonstrated that the factors influencing visitors’ perception, which consisted of five factors and 31 observed variables, had a cumulative variance of 73.892%. Visitors' impressions of people who use wellness and healthcare services were influenced by factor 1, sanitation issues, and Thai medical standards, which had the highest percentage of variance. The remaining four criteria included psychological skills (10.444%), ancillary services (14.934%), nursing and biological variation (13.552%), and communication and privacy (16.634%), respectively. These factors can be credited to the benefits of research in identifying marketing tactics that increase awareness and offer top-notch service, enhancing competitive advantages by luring new customers and satisfying the wants of returning ones.

Keywords: Transcultural nursing, Perception, Medical tourism, Chinese visitor, Nursing care

Introduction

A cooperative is an independent organization of people who voluntarily become a Consumers nowadays are enthusiastic about their health and well-being. By 2030, there are expected to be 5.3 billion middle-class people on the planet. Most of these people may reside in Asia, particularly in China and India. Both countries' economies are doing better than in the past. Furthermore, China's middle-class market will be valued at $14.1 trillion, which has significant future potential for Thailand's health and medical tourism (Bangkok Bank, 2021). Furthermore, as a medical centre, Thailand offers numerous aspects that attract visitors, for example, excellent quality and worldwide services. Many professionals are equipped with cutting-edge technology. The features motivate Thailand's private hospital business to expand its market to foreign patients, who have higher purchasing power and spend more on healthcare than patients in the second country, thereby increasing the number of foreign service recipients. Every year, between 1.1 million and 1.2 million patients, including foreigners, visit the hospital. Foreign patients make roughly 66% of the total, with Thais accounting for the rest. (Bangkok Post, 2021). Every year, more Thai and foreign service recipients enter private hospitals, culminating in increased cultural diversity in terms of race, religion, language, and culture. Transcultural care is thus critical in this time of transition (Treethipwanich et al, 2019).

Since health resources in China are insufficient and poorly dispersed, there is a significant demand for therapy across provinces, cities, and even counties (Liu et al., 2022). Customers' "willingness to spend on health" (Jiang et al., 2022) drives health tourism; travellers are viewed as crucial to the success of healthcare providers in each destination (Kamassi et al., 2020). Thailand is an attractive and affordable destination, with its medical and tourism industry features scoring well above average and ranking sixth. Finally, as a result of the efforts made to obtain international certifications for its key facilities and the competence of its medical team, the quality of its facilities and services component ended up scoring above average, with lower medical treatment costs than Singapore and India (Ninkitsaranont, 2019). Thailand has the largest private hospital in Asia and is the first country in the world to receive ISO 9001 certification and JCI accreditation. To date, 59 hospitals have been accredited by the JCI, all of them private (The Nation Thailand, 2022). This is since health visitors and healthcare professionals, such as physicians and nurses, come from diverse cultures. The influence of cultural diversity on health care is direct. Overall, Thailand is becoming a successful medical tourism destination, benefiting from Asia's growing population seeking less expensive treatments elsewhere but close by. In the index between 2020 and 2021, Thailand was ranked 17th, followed by Canada, Singapore, Japan, Spain, and the United Kingdom (The Nation Thailand, 2022).

Transcultural nursing is a nursing science and practise that considers individuals' values and beliefs when executing particular cultural nursing activities (Smeltzer et al., 2007). The goal of transcultural nursing is to prepare nurses to provide nursing care in accordance with either culturally specific or universal nursing practises (Nur'ainun, & Novieastari, 2019).

People of the same race might have cultural distinctions, but people from other cultures are much more understanding of the culture of such visitors in terms of nonverbal language, attitude, way of life, and so on. Therefore, providing health care to families of all races, ethnicities, and cultures is a crucial and essential aspect (Shen, 2015). Transcultural nursing is an essential component of modern healthcare, and nursing stems from the necessity to care for patients from other cultures, each with their own unique set of traits (Karabudak et al., 2013). However, due to the presence of hurdles (Hasnain et al., 2011) related to personal and environmental characteristics that might promote or hinder care (Starr & Wallace, 2009), putting such initiatives into practise remains difficult. Wellness and health tourism: previously, the majority of research and medical investigations into topics included customer satisfaction (Anaya-Aguilar et al., 2021), service quality (Han et al., 2021), wellness centres (Mueller & Kaufmann, 2001), older adult healthcare (Han et al., 2015), medical tourism (Kanittinsuttitong, 2015), psychological well-being (Martin et al., 2013), and cosmetic surgery (Wu et al., 2021). Most of the research in Thailand has been done in the context of cultural competence for registered nurses. Furthermore, there is insufficient research on transcultural healthcare among healthcare professionals (Sirisawat et al., 2020) or nursing student educational assessment (Nupech & Kaewpimon, 2020; Jeh-alee & Jeasoh, 2019). A lack of information in this area may lead to misconceptions or a failure to recognise the medical requirements of Chinese patients. The researchers wanted to see how foreign patients perceived transcultural nursing. What is your outlook on service? Additionally, most of these employ theory as a primary research method (Campinha-Bacote, 2002).

In this study, researchers used a methodology to assess the cultural competency of health and medical visitors. Researchers conducted a systematic review of the literature. Articles on the applicability of these four transcultural nursing concepts are relevant to the study's context: Giger & Davidhizar, 2008; Campinha-Bacote, 2002. The Giger and Davidhizars transcultural assessment model was discovered by the researchers to be a tool intended to measure cultural competency in health and medical behaviour (Karabudak et al., 2013). It is a straightforward, intelligible, and well-suited instrument for a wide variety of applications that have been identified as distinctive and evaluated in terms of five cultural dimensions: communication, personal distance, social organization, time, environmental management, and biodiversity (Sung & Park, 2019). These were used in this study. This will provide information on health and medical tourism. In this article, we will discuss Thailand's health and medical tourism, specifically from the perspective of health visitors.

In light of the preceding significance and issues, researchers are interested in studying Chinese visitors' perceptions of transcultural nursing in Thailand. Medical tourism marketing and promotion strategies will greatly benefit from this research. The development of long-term transcultural medical service quality plans and increasing the number of health and medical visitors who utilize the service.

Methodology

Sample

A key concern when conducting factor analysis (FA) is sample size, since correlation coefficients are heavily relied upon (Costello & Osborne, 2005). The validity and statistical inference of the coefficient determine whether it is a good approximation of the population correlation; that is, the more stable the sample correlations, the more valid the scores (Schumacker & Lomax, 2016; Finch et al., 2016; Tabachnick & Linda, 2019). Smaller samples, on the other hand, may provide unstable correlation estimates and are more sensitive to outliers (Finch et al., 2016). According to Tabachnick & Linda (2019) and Kline (2016), the sample size should be five times the number of independent parameters; Raykov & Marcoulides (2006) recommend ten times the number of independent parameters. Therefore, the populations were Chinese visitors who had used Thailand's health and medical services. The precise number is unknown, but there are numerous them. The effect size f = 0.25, error probability = 0.01, and power of test (1 -) = 0.99 were calculated using G*Power (Faul et al., 2013). The study included 520 visitors who were chosen through accidental sampling.

Data Collection

The survey consisted of two sections: the socio-demographic profile (gender, age, monthly income, education, and marital status); and the perception of transcultural nursing among Chinese visitors to Thailand in terms of health and medical tourism. According to Giger & Davidhizars (2008), communication, personal space, time, environmental management, social organization, and biological differences are included, as well as two additional factors: nursing and ancillary services (Lenoir, 2011; Miller, 2018). Using a Likert-style scale ranging from 5 (strongly agree) to 1 (strongly disagree), an initial pilot survey with 30 participants was undertaken to remove any ambiguities. According to the transcultural nursing analysis (Wongratana, 2010), tests of surveys were undertaken to verify the validity and reliability of the survey questions before the project was conducted formally. A confidence value of over 0.70 is considered acceptable for a confidence question, which got a Cronbach's alpha coefficient of 0.89. The information was evaluated using the evaluation form to confirm the content and construct validity and appropriateness of the questionnaire (Item-Objective Congruence Index, IOC). It was examined by three tourism specialists and a Chinese professor. Language and content were reviewed in the evaluation form. The entire assessment form was rated on a three-point scale from -1 to 1. Items with scores greater than or equal to 0.5 were deemed appropriate; those with scores less than 0.5 were deemed inappropriate and required to be altered in accordance with the experts' recommendations. Researchers gathered information on 520 Chinese visitors who visited Thailand for medical tourism between December 2021 and February 2022. Ascertain that the questionnaire is comprehensive and accurate.

Data Analysis

The data was analysed in two steps. To begin, descriptive statistics were employed to collect socio-demographic information about Chinese visitors. Second, the 32 observed variables relating to satisfaction perceptions of the transcultural nursing variables were subjected to an exploratory factor analysis (EFA). To extract the factors, principal component analysis (PCA) with varimax rotation was chosen as the best estimation approach for factor analysis. Prior to factor analysis, KMO (Kaiser-Meyer-Olkin Measure of Sampling Adequacy) and Bartlett's Test of Sphericity were utilised (Bartlett, 1954). According to common criteria, only factors with eigenvalues greater than 1 and items with factor loadings and communalities more than 0.5 were retained in the final factor structure (Kaiser, 1974). Reliability indices within each dimension were calculated to best fit a factor's internal consistency (Kline, 2016).

Results

A. Descriptive Statistics

The study has a sample size of 520 visitors, questionnaires collected and processed. Demographic information of the observed sample is presented in Table 1. To determine the demographic characteristics of patients enrolled in our 520 samples of study, most were men (n = 264, 50.8%) were educated to master's degree or higher (n = 316, 60.8%), were age 36-52 year (n = 290, 55.8%), were single (n = 316, 60.8%), and were monthly income 6,001 or over (n = 325, 62.5%).

Table 1 Characteristic of the Participants

Variable	frequency	%	Variable	frequency	%
Gender			**Education background**		
Male	264	50.80	Under bachelor's degree	51	9.80
Female	256	49.20	Bachelor's degree	153	29.40
Age			Master's degree or higher	316	60.80
17 or below	0	0	**Monthly income (Rmb)**		
18-35	230	44.20	2,000 or below	0	0
36-52	290	55.80	2,000-4,000	53	10.20
53 or older	0	0	4,001-6,000	142	27.30
Marital Status			6,001 or over	325	62.50
Single	316	60.80			
Married	204	39.20			

In table 2, based on the replies given to the total of 32 observed variables, the researchers discovered that the respondents' perceptions were generally positive, with the lowest mean score achieved for the response to the statement, " The medical staff's empathy" (M = 4.32). The response with the highest mean score achieved, on the other hand, was " The attitude of the medical staff toward my customs and traditions" (M = 4.69). The score shows how positive the respondents appeared to be in terms of how they regarded themselves in connection to the topic under discussion. The responses clearly differentiate between personal ideals, space, family, nursing, and supplementary services, all of which have an impact on self-belief in transcultural nursing. The data's normality was assessed by computing the statistics of skewness and kurtosis and comparing them to the "rule of thumb value" of 2.58 (Hair et al., 2018). Skewness is a measure of how the symmetry of a distribution affects tests of means, whereas kurtosis is a measure of how the peakedness of a distribution affects tests of variances and covariances. The skewness values ranged from -1.36 to 0.05, which is inside the threshold, indicating that respondents answered these questions identically. Kurtosis values varied from -2.055 to 0.875, again within the recommended range.

Table 2 Perception of Transcultural Nursing

Variable	Mean	SD.	Skewness	Kurtosis	Variable	Mean	SD.	Skewness	Kurtosis
A1	4.64	0.571	-1.362	0.875	**A17**	4.69	0.468	-0.876	-1.084
A2	4.59	0.537	-0.805	-0.499	**A18**	4.34	0.483	0.566	-1.412
A3	4.43	0.647	-0.703	-0.535	**A19**	4.49	0.504	-0.018	-1.889
A4	4.66	0.484	-0.760	-1.157	**A20**	4.49	0.515	-0.111	-1.584
A5	4.54	0.514	-0.325	-1.490	**A21**	4.56	0.501	-0.290	-1.800
A6	4.49	0.504	-0.022	-1.889	**A22**	4.52	0.605	-0.856	-0.261
A7	4.58	0.493	-0.344	-1.889	**A23**	4.32	0.558	-0.073	-0.669
A8	4.59	0.504	-0.496	-1.422	**A24**	4.50	0.530	-0.314	-1.232
A9	4.59	0.501	-0.445	-1.572	**A25**	4.50	0.527	-0.266	-1.316
A10	4.51	0.512	-0.161	-1.660	**A26**	4.36	0.611	-0.395	-0.662
A11	4.56	0.500	-0.161	-1.660	**A27**	4.38	0.567	-0.233	-0.785
A12	4.57	0.507	-0.406	-1.511	**A28**	4.43	0.591	-0.480	-0.661
A13	4.51	0.500	-0.054	-2.055	**A29**	4.56	0.549	-0.725	-0.571
A14	4.67	0.475	-0.776	-1.255	**A30**	4.43	0.595	-0.506	-0.645
A15	4.56	0.507	-0.283	-1.698	**A31**	4.59	0.533	-0.806	-0.516
A16	4.55	0.506	-0.279	-1.698	**A32**	4.50	0.541	-0.421	-1.017

C. Factor analysis

Researchers utilised exploratory factor analysis (EFA) to estimate the latent dimensions of visitor satisfaction with transcultural nursing in a private hospital in Thailand. Researchers diminished the data to a smaller number of dimensions utilising factor analysis, which clarified most of the variance in the satisfaction structure. A principal component analysis (PCA) was conducted on 32 observed variables, which are used to evaluate visitor satisfaction with individual elements of transcultural nursing. To identify the scale factors, an EFA with a varimax rotation was performed using SPSS software. To assess whether a data set is suitable for factor analysis, the strength of the link between the items must be examined (Hair et al., 2018). Items having factor loadings less than 0.4 (Tabachnick & Linda, 2019) or cross-loaded on more than one factor were deleted, and the internal reliability of each factor was assessed using Cronbach's alpha. Cronbach's alpha is greater than 0.7, indicating that the variables have a moderate correlation with their component groupings and can be deemed internally consistent and stable (Hair et al., 2018). In addition, based on statistical tests for the existence of correlations between variables, known as Bartlett's Test of Sphericity, and measuring the adequacy rate when sampling KMO (Kaiser-Meyer-Olkin), this study assessed the ability factor of the data. The resulting KMO value is 0.927 where the position exceeds 0.6, which is the minimum acceptable value (Hair et al., 2018), Table 3.

Table 3 KMO and Bartlett's Test values

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.927
Bartlett's Test of Sphericity	Approx. Chi-Square	12449.768
	df	435
	Sig.	.000

Several criteria were used to select factors and identify dimensions, including eigenvalue, percentage of variance, Cronbach's alpha coefficient, extracted communalities from individual satisfactions, Scree plots, and factor loadings with their structure. At the beginning of the factor analysis, only factors with eigenvalues greater than one were extracted. Researchers only considered factor structures that explained more than 50% of the total variance to determine the best factor solution. The scree plot was used to determine the optimal number of extracted factors and the presence of a fracture point behind the five components. PCA discovered five factors with characteristic values greater than one and an explained variance of 73.89%.

The values of communality are calculated in the range of 0.407 to 0.794. As a result, this type of five-factor solution demonstrates that the variability of the original items is adequately explained. Based on Catell's criteria, it was decided to keep all five factors for further research (Cattell, 1966). Table 4 depicts the structure of the isolated dimensions. A Varimax rotation was used, and the extracted dimensions have no correlation. The goal of the rotation is for each variable to be represented with the fewest number of factors and with the best spatial distribution possible. Based on table 4, the items that comprise the five-factor solution were assigned factors: F1—sanitation, F2—communication and privacy, F3—ancillary service, F4—nursing and biological variations, and F5—psychological skills, with an explained variance of 73.89%. Cronbach's alpha reliability coefficient demonstrated the measuring instrument's dependability. It is the most commonly used instrument for measuring the scale's internal consistency and the level of relatedness of the items that comprise the scale (Pallant, 2007). In an ideal case, this coefficient would be greater than 0.7 (DeVellis, 2003). Cronbach's alpha coefficient for the proposed five-factor solution is 0.837, indicating adequate internal consistency of the selected factors. Cronbach's alpha coefficient is 0.910 for the entire scale of 32 questions.

Table 4 The statistical values for each component before and after factor extraction

Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Total	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
13.234	44.113	44.113	13.234	44.113	44.113	5.499	18.328	18.328
3.626	12.088	56.200	3.626	12.088	56.200	4.990	16.634	34.963
2.378	7.925	64.126	2.378	7.925	64.126	4.480	14.934	49.896
1.554	5.180	69.306	1.554	5.180	69.306	4.066	13.552	63.448
1.376	4.586	73.892	1.376	4.586	73.892	3.133	10.444	73.892

Table 5 The variables for each component

	Varibles	**Factor Loading**
Factor 1	A12 The healthcare professional’s hand sanitation when performing a procedure or contacting a patient	0.839
	A11 Clean and sanitary hospital facilities (e.g., toilets, tableware)	0.831
	A14 You concentrate on Thailand medicine in your healthcare service	0.825
	A13 Patients can wash their hands at an alcohol station in each department	0.816
	A10 The patient is served quickly and accurately	0.812
	A9 medical staff devotes adequate time to patient care	0.763
	A15 Your family makes the majority of healthcare decisions for me	0.723
Factor 2	A5 Excellent care for patient records	0.731
	A2 The medical team communicates clearly with the patient	0.713
	A4 Using less medical words	0.709
	A3 Healthcare professionals gently and compassionately touches the patient	0.684
	A8 A short consultation wait time	0.681
	A1 The medical team addresses a patient and my family in a soft and friendly manner	0.638
	A7 Ensuring patient confidentiality when providing healthcare services	0.624
	A6 Confidentiality in the hospital room	0.590
Factor 3	A28 The hospital's canteen is accessible	0.838
	A29 Shuttle bus/ taxi service	0.787
	A27 Currency exchange is available	0.762
	A26 Food quality is satisfaction	0.731
	A30 Interpreter	0.693
	A31 Convenient hospital facilities in the hospital (e.g., convenience store, café’)	0.626
Factor 4	A22 Medical treatment costs are appropriated	0.734
	A21 Prompt service	0.725
	A23 The medical staff's empathy	0.711
	A20 The medical team is aware of China's poor health conditions	0.702
	A24 The medical personnel are well qualified	0.700
	A25 Excellent diagnostic quality	0.682
Factor 5	A18 The medical personnel is aware of the dangers of contracting an illness or condition	0.797
	A16 The attitude of medical staff regarding my nationality	0.763
	A17 The attitude of the medical staff toward my customs and traditions	0.631

A19 Medical staff healing psychology is quite common	0.622

As can be seen in Table 5, factor 1, there are seven variables. These variables have variable names and factor loading: A9, A10, A11, A12, A13, A14, and A15 describe the 18.328% variation, and they can be referred to as component 1 as sanitation factors and Thai medical standards. In accordance with the concept of an expert healthcare professionals, patients expect maximum confidence in their abilities, including the advice and knowledge of healthcare professionals about diseases and health conditions, because it relates to the service recipients' lives and safety (Maslow, 1970). In addition, as physicians and healthcare professionals, scheduling the exact treatment schedule gives a feeling of confidence in the treatment (Deephaisarnsakul, 2013). Handwashing facilities are crucial to preventing the spread of infectious diseases such as diarrhoea, vomiting and thrush, among others (Berihun et al., 2022). The physical environment of the health facility was found to be positively correlated with assessments of the facility. A satisfactory rating for service accessibility (a composite of waiting area and time, drinking water, and clean restrooms) (Srivastava et al., 2015). Bangladesh, Gambia, Thailand, India, and Iran similarly identified cleanliness and hygiene upkeep as major predictors of satisfaction. The most frequently mentioned factor influencing women's satisfaction was interpersonal behaviour, particularly provider civility and refraining from abuse (Bouzid et al., 2018).

The communication and privacy factors are composed of eight variables, listed in variable names and factor loading as follows: The 16.634% variation is described by the variables A1, A2, A3, A4, A5, A6, A7, and A8. Quality healthcare is recognised to require effective communication between healthcare professionals and patients (Negi et al., 2017). A significant number of culturally diverse patients frequently present communication issues for healthcare professionals, particularly if sociocultural differences are not fully recognised, appreciated, investigated, or understood (Betancourt et al., 2003). A lack of cultural understanding fosters negative attitudes about transcultural nursing and influences healthcare professionals' perceived readiness to care for culturally varied patients (Marshall et al., 2017). When nurses are effectively communicating with others and providing safe care, it directly impacts the quality of nursing care, according to Chuwongin et al. (2020). A nurse's communication skills can influence the cooperation between nurse and patient. According to Bonsang & Van Soest (2012), the treatment period directly affects patient satisfaction. Additionally, in accordance with human rights principles, patients have a right to privacy, both physically and mentally, access to personal information, and the right to discriminate against or act independently. A patient's right to anonymity has been specified in Article 6 of the Professional Council of Medical Entrepreneurs and the control committee for practising the art of healing, where the statement reads: "Patients have the right to anonymity of their own information unless they consent or are acting on the practitioner's duty." The Medical Profession Act, B.E. 2525, Medical Council rules, the Nursing and Midwifery Profession Act, B.E. 2528, as well as the amendment (No. 2), B.E. 2540, have all defined the medical profession.

A variance of 14.934 percent is referred to as ancillary services aimed at Chinese consumers, as expressed by four variables in factor 3. As explained previously, factor 3 is composed of five variables in the following order: A26, A27, A28, A29, A30, and A31 all comprise the variance of 14.934 percent. According to Lenoir (2011), there are other services, and with these, as well as the major items associated with them, consumers will have more alternatives. It is the key to a location's additional revenue. Ancillary services are diagnostic or supportive measures that physicians use to help treat patients. They are generally located in hospitals, medical offices, or free-standing diagnostic testing facilities. During a stay in a hospital, anything that doesn't include room and board is an ancillary. Physical therapy, X-rays, lab tests, and ultrasounds are examples of such services (Miller, 2018). In addition, patients benefit greatly from a more focused and comprehensive treatment approach. The significance of ancillary services in the care of a hospitalised kid cannot be overstated. They boost patient satisfaction and have a beneficial impact on quality of life, which can be translated into quantitative outcomes such as shorter procedure times, fewer doctor visits, less symptoms, earlier release, and fewer drugs required. These services save employees' time and energy, boosting productivity, retaining employees, and minimising burnout (Gomberg et al., 2020). The services can be introduced based on geographic region, hospital tier, and provider availability. All services do not have to be available in one location, but they can be shared among hospitals within a reasonable commute. As more freestanding children's hospitals open their doors, ancillary services will acquire reputation and appeal in order to give the greatest patient care experience possible (Alsabri et al., 2020).

The nursing and biological variation factor consists of five variables: A20, A21, A22, A23, A24, and A25, which together comprise 13.552% of the total variance. Cultural competency is characterised in the healthcare environment as an understanding of how social and cultural elements influence patients' health attitudes and behaviours, and how these factors are considered at various levels of a healthcare delivery system to ensure quality healthcare (Betancourt et al., 2003). Assessments of culture are crucial for achieving positive treatment outcomes, both personally and holistically. Demographics must be considered as well. There are numerous factors that influence health behaviors, beliefs, customs, habits, and biases, as well as work activities, healthcare, and treatment methods (Stanisavljevi & Kekus, 2019). Any human must be able to comprehend the variations in elements like age, food, physical activity, and hereditary features between different people or animals (Badrick, 2021). Healthcare services should cater to the culture of the target audience and be in line with contemporary medicine. Patients live in a society whose values, beliefs, and lifestyles shape their cultural identity. Health professionals should understand disease awareness and health response, as well as cultural factors that influence those behaviours (Tortumolu et al., 2004). To provide quality patient care, personalised medicine (PM) offers the potential to tailor therapies with the best response and greatest safety margin (Vogenberg et al., 2010).

Factor 5: The psychological skills factor is made up of five variables, which are stated in variable names and factor loading order below: A16, A17, A18, and A19 comprise 10.444%. Verbal and nonverbal communication, emotional behaviour, belief, empathy, listening, perception, and joint decision-making are all examples of doctor-patient relationship psychological skills. Quality outcomes are associated with negotiation, information, persuasion, and so on. Improving physician compliance, satisfaction, and recall while also contributing to diagnosis and treatment (Turabian, 2019). The use of psychology in the treatment of diseases It is very important because not only mental disorders, but other diseases can be treated with psychology. Techniques for psychologically informed practise are numerous, and recommendations to improve care have included, to name a few, developing communication skills (Travado et al., 2015), a multi-dimensional construct, a person's cultural sensitivity, attitudes, cultural awareness, and cultural knowledge and skills (Shen, 2015; Alizadeh & Chavan, 2016), and interpersonal interactions (De Haes & Tunissen, 2005). Aside from these abilities, the rapidly expanding evidence base of diagnoses and treatments necessitates the regular updating of healthcare professionals' own psychological knowledge. Culture competence training will be essential to increase healthcare professionals' awareness of cultural differences and how to treat culturally diverse patients (Kaihlanen et al., 2019).

Conclusion and suggestions

Despite the fact that transcultural nursing is a crucial element of the holistic approach, healthcare professionals should be culturally aware. It also demands health professional specialisation in order to deliver qualified, culturally relevant care. This study's empirical evidence opens up new avenues for understanding transcultural nursing from the perspectives of the family unit, society, culture, and lifestyle. In health care services, individualised intercultural care is the role of a healthcare provider as both a human and a professional. This is not only because of culturally adapted care but also because it reflects the patient's satisfaction and positive perception of care. Transcultural nursing is challenging because of cultural conflicts, the expression of pain and suffering, and the need to navigate personal and organisational constraints. Cultural sensitivity, on the other hand, can result in the categorization of cultures, leading to stereotypical behaviours in certain cultures, ethnicities, and religions. It is stressed that the sufferer may feel "special," "vulnerable," or "patronised." Those healthcare professionals who are more capable of meeting their needs in a multicultural environment could make better decisions. Healthcare professionals ought to have the ability to practise self-criticism and tolerance for differences, but also to develop interpersonal and psychological skills, as well as collaborative relationships with patients and their families, to overcome these challenges.

Sanitation, patient communication, and privacy should all be considered in private hospitals. Therefore, because these characteristics are necessary for patients, practitioners should ensure that healthcare professionals and equipment are sanitized. Ancillary services are aimed at enhancing wellness and health visitors' choices and experiences while supporting the success of the core visitor establishments. More study into travelers' views of positive and unfavourable services in various agencies is needed as a benchmark for improving service quality. The relationship between hospital brand attributes and visitors repurchase intentions should be investigated. When designing a marketing plan for future target groups, it is crucial to establish such characteristics.

New knowledge and the effects on society and communities

Thailand's medical tourism policy recommends continuing to attract and retain medical tourists. The government should promote bilingual professionals who can communicate in both English and Chinese, as well as global standards for medical facilities worldwide. Furthermore, government agencies should utilise this study to create a marketing strategy that promotes wellness tourism, focuses on sanitation, and more fully fulfils international hospital standards. Major medical tourism providers should broaden and deepen their research on transcultural nursing as compared to other research to gain new knowledge. Additionally, we will investigate how Chinese citizens and other foreigners behave in different contexts based on the knowledge network structure within an organization. All healthcare professionals should receive regular training to increase awareness of attitude, customer service, and care, which should emphasize sanitation and follow Thai medical standards. Aside from that, ancillary services are provided in hospitals for the convenience of visitors and for them to become comfortable using them. These factors must be prioritised in their business and marketing strategies. Additionally, the country's competitive advantage will encourage more visitors to visit, which will lead to the development of a health tourism industry.

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Lone Mothers in Chiang Mai with Experiences of Social Stigma

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Abstract

This article explains the outcome of the study to strengthen the knowledge of the experience of being lone mothers by focusing on the way “social stigma” and “social support” are involved in the creation of the women's experience in and being alone mothers in contemporary Thai society. In this article, researchers have studied the experiences and views described by the goal. The stories of the lone mothers of 18 people living in Chiang Mai are brought to the dialogue, reflecting the perception and experience of stigma and dealing with that stigma. In this place, researchers have included the “experts” in the future because they are interested to cover a wider group of stigma experiences. So specialists will be able to provide greater experience through the stories that the service provider or lone mothers to receive help in order to answer. The research question, “how much is that the social stigma/discrimination has created an experience of lone mothers in Chiang Mai”. It is a guideline for analyzing data, as well as lone mothers. However, the tools from this theory are not suitable for the stigma of lone mothers. Therefore, the researchers have taken three benefits to this research: 1) stigma experience 2) dealing with stigma and 3) ashamed and self-punishment. In addition, in this article, the story of the stigma lone mothers arranged by looking at the type of lone mothers that found that age group is a similar feature of the type of lone mothers that some of them are associated with the seals at stigma they. While other groups of lone mothers are older, the seals that occur are different.

Keywords: Lone mother, Social stigma, Chiangmai

Introduction

The family is the most fundamental social institution in human civilization. Family phenomena will act as a mirror, reflecting society as a whole. If the majority of individuals in society enjoy decent living circumstances or strong social welfare, family members will likely experience these same benefits as well. (Nonpathamadul, 2009) It is clear that the family is where the process of molding family members and molding society begins. The quality of the family in a society determines whether or not that society is good, making the family an essential component that cannot be ignored. A "lone mother" is physically weaker than a man due to differences in gender and anatomy, and having to shoulder the load by herself is difficult for women. (Family Network Foundation, 2011) In Thai culture, lone mothers are seen as terrible women who fail to fulfill their role as wives, and the issue of lone mothers is seen as the root of many other issues, such as drug issues, criminal issues, domestic violence issues, etc. Children in single-parent households run the danger of acting inappropriately since some members of society still see them as dysfunctional families. As a result of being perceived by society as a problem for their families, lone mothers experience considerable difficulties climbing the mental, emotional, and everyday ladders, this discourages them and makes them feel helpless. The government and the commercial sector are now both aware of the rising number of single-parent families, and as a result, they have put measures in place for lone mothers, whose families are thought to be struggling. (Office of Women's Affairs and Family Development, 2013) Lone mothers require assistance since they struggle with emotional, psychological, financial, and social issues, especially if their environment does not support them and they are unable to access benefits.

Being a "lone mother" is the fact that a woman is responsible for raising only one child, it is very sensitive in Thai society because being a single mother makes a single mother stigmatize society with two aspects of perspective, both on the good and bad sides. (Thavorn, 2015) The good side is to show the responsibility of being a loving mother, taking care of your child, being a strong example, even if socially cynical, being able to prove yourself with patience, sacrifice for your child, but in one aspect of society on the negative side, there is the same, (Jittayasothorn, 2009) because the majority of lone mother is usually in groups of people aged 18-30 (during adolescence) or younger, it is a matter of lack of responsibility for prevention, and also means pre-impulsive, contrary to traditional Thai morality and culture, both of these views are also sensitive issues that can't be addressed, and they are considered to be the ongoing problems of the teenage mother in the face of the truth in society, being a single mother in Thai society today is not easy for women, because you may be caught up in the guilt of raising a child without a father, fatigue to do everything alone for your child experience lone mother each one is different, one of the same is that lone mothers have to actively make money to take care of their families, to build their own morale, to be both parents and parents, but before they go through that and go through the hardest thing is to make the decision to break up with your husband. (Family Network Foundation, 2011)

But family-style lone mothers are not a new phenomenon in Thai society, women who have children and can't live a double life for whatever reason, all of them are in every age and society, what follows is the impact of being a lone mother family, lone mother families from different causes are recognized by different societies because of their social values, a culture of different social contexts lone mothers the family caused by the cause that society does not accept, society will look at aspects of dysfunction or deviant, also include absorbing and accepting respect for the self-image which affects the physical condition, mind, emotions and behaviors. It's an important part of how the lone mother family can adapt to the normal life of society, having a lone mother's family in one of the family's problems may be related and cause other problems. (Family Network Foundation, 2011) In particular, the quality of life is depressing, causing families to struggle with problems, including mental, feelings of isolation, and loss of confidence, self-blame, stress in the burden of responsibility, physical hardship, struggling for family survival can be detrimental to the health and balance of the family. In addition, most concepts remain dominated by traditional family ideologies that have long been deeply rooted in Thai society. As a result, lone mother family is an unpleasant condition and is still often stigmatized by society.

Objectives

A study of social stigma in adapting to lone mothers including the operation of the network that helps support lone mothers in Chiangmai.

Methodology

This research is a study of the access to lone mother and the lifestyle path of lone mother in Chiang Mai Province. In this study, the researchers presented a layout in the design of the research, including research methodology, data collection, and data analysis. The concept of social constructivist is to support this research to study the access to lone mother and the lifestyle of lone mother in Chiang Mai Province, especially the experience has been stigmatized and social support. The researchers selected the qualitative method type of qualitative method using case study in this study to cover the complexity and diversity of experience of becoming a lone mother and the elements that affect each woman in the perception of the experience of being a lone mother. The reason for choosing qualitative research is because of the purpose of the study, to reveal the process of becoming a lone mother and experience being a lone mother, seeking answers about the creative and meaningful social experiences by focusing on the nature of the reality that society creates and qualitative interviews can bring a deeper understanding of being a lone mother, this translates to change according to context, the situation and interaction of social experiences and processes that women experience.

In this research, semi-structured interviews are focused on the main topics or issues that need to be studied. The researchers found it was more appropriate than unstructured interviews, there are no guidelines or schedules for interviews, but questions or questions asked to amplify what happened during a semi-structured interview are designed to form a flexible interview guideline this method makes it possible to gather information about the experience of lone mother. This is especially true of stigma and social support, and the participants express their thoughts and feelings, as well as provide a picture of knowledge and experience open-ended questions encourage research participants to start telling their own stories, and using questions to amplify speech and encouragement opens up opportunities to explain more about them. In the research methodology of this study, there will be observations, by observation it brings notes and event logs, systematic behavior of objects in the social location selected in the research, recording what is observed most often refers to field records “field note” is a detailed narrative, no concrete judgment to the observer. Observation is a very important and fundamental method of qualitative research, which is used to reveal complex interactions that occur in inherent social locations. In addition to the observations in conjunction with in-depth interviews, the researchers found that the researchers were able to use the following observations. The researchers were more likely to record body language and responses than words, participant observation brings researchers to focus on real-world situations, which gives researchers the opportunity to listen and see, as well as have real experiences that the researchers have experienced, and the research was conducted in October 2018 - November 2019, and has passed the application for a human research ethics certificate. Faculty of Social Sciences Chiang Mai University in October 2018.

Results

This research is a study of the access to lone mother and the lifestyle path of lone mother in Chiang Mai Province. In this article, the researchers studied the experiences and perspectives depicted by the target audience, the stories of the 18 lone mothers who live in Chiang Mai are spread through dialogue, reflecting the perception and experience of stigma and dealing with such stigma. The majority of lone mother features are domiciled in Chiang Mai (13 cases), the second is a migrant from the upper north, Lampang province (2 cases) and Chiang Rai province (1 cases) has only a small minority of domicile in farther areas: the central north, 1 informant and Myanmar 1 contributor. The youngest lone mother is only 12 years old and the most is 49 years old, on average this lone mother group is about 32 years old, most are 35 or older. During that interview, there are 10 lone mother living conditions and there is a responsibility to raise one child who lives together. The other five contributors must raise two children (one informant, in addition to caring for one child, also needs to help a lone mother to care for one grandchild), and one of the informants was responsible for three of the children who lived with him. Although the researchers determined the criteria for recruiting participants by taking the age criteria of the child under the responsibility and care of the lone mother into account. However, data has found that lone mother is also responsible for caring for children over the age of 20, there are three contributors. In the lone mother group, there is one child in custody, he age of most children is under 5 years old (8 cases). In the group of two children, the age of the child is usually over 13 years old (5 cases).

The findings from the lone mother seal and stereotype demonstrate the negative attributes that were enacted with the lone mother found in this study, which generally contained five main types of stigma: (1) Pre-marriage sexual intercourse (immoral acts). (2) Women are the cause of breakup: being a woman. (3) Women who are not worthy of having a husband, (4) Women/mothers who rely on others, and (5) Bad women/bad mothers. This can be said that lone mother is stamped overlapping. For example, many of the target audiences were tied to their single motherhood with premarital sex. These lone mothers are not classified as lone mother a group, which is similar to the results of Wiwatwongwana (2013) that found the "fatherless" seal (pregnant without a father of a child (husband)) was mostly born to a group of illegitimate women. However, in this study, such seals were also commonly found in illegitimate mothers, including abandoned mothers, based on the findings, it is important to note that whenever a seal is handed over to a lone mother, they may experience stigma in different ways on a variety of levels. Among the target audience, lone mother has depicted their experience stigmatized through awareness discrimination from families/communities and institutions, experts also share their experiences of stigma through assistance with service providers. According to the research, the study found that whether lone mother was directly stigmatized or not, the stigma was not a good result. They will recognize that others are degrading and discriminating against them because being a lone mother, the target audience recognizes stigma from their (new) loved ones, family lover (new) my own family, friends and neighbors/communities. In general, audiences report that they are aware of diverse negative attributes. However, it was found that the lone mother of the most neglected mother type was perceived as stigmatized more than any other type of lone mother. In addition, the most common stigma is stigma from neighbors/communities, second to family and loved ones (new), that is to say;

Regarding the perception of the neighborhood, the community, and discrimination, the mother of five of the cases shared with me how she made the decision to raise her child alone when she was between two and three years old because of the difficulties in her marriage and the fact that, once they were married, they did not enjoy living together because their husbands were out socializing, leaving little time for their families and children. At the time of the decision to part ways, everyone feels bad, too, because you're young and it feels so sorry for you, and if you know more, how will a mother tell or answer your question? "Why don't you have a father like everyone else?". In most cases, the stigma that distinguishes neighbors and communities is brought about by unspoken rumors. The five lone mother cases confess to being tired of having to deal with stigma from neighbors and communities who look at insults and gossip and think that being a lone mother is caused by acting badly. For instance, gossiping about being pregnant before marrying, gossiping about a husband having a new wife, or having a new husband when he's pregnant, he's not responsible. Regarding the prejudice among neighbors, they also disclosed in interviews that they have a variety of experiences of being rejected or discriminated against by neighbors or community members. It is clear that the experience of rejection or discrimination that most single mothers have been associated with has been associated with being an "illegitimate woman" even if they become a lone mother for any reason. It was also found that lone mothers in the group of abandoned mothers six cases often gain experience in this field, that is to say, being their lone mother comes from being pregnant without a father, as a woman, sexually transmitted, and HIV-positive, etc.

And the perception of family and discrimination, lone mothers, three cases of lone mothers, tells of the decision as lone mothers, their families still have the majority view that single-parent families are causing social problems, reasoning that because they lack warmth, there is no time for your child to be poor, leading to the child becoming a troubled child, considering the social issues with single-family, it is evident that the public has given priority and expressed concern for children who are in single-family in a special case. This is in line with the results of the ABAC pole research survey (ABAC Poll Bureau, 2018), which states that children in single-family are more affected than parents who are burdened with children alone. It's a stigma from a family that sees if a single-parent parent is a single-parent. The lack of encouragement to train their children can result in children and young people growing up lacking warmth and causing aggressive behavior, lack of morality and ethics. As for the deprivation of the family, it is found that most of them come from your husband's or father's family. There's a rejection, the three lone mothers said they did not believe the baby was the son of his son. When the baby is born, lone mothers need to leave a box named after the birth of the child in the birth certificate, and then a DNA test, to certify the child and prove its legality, and as for discrimination against the families of lone mothers themselves, two cases of discrimination were also rejected, they are separated from their families, both from their relatives and their parents. That is to say, the family is embarrassed because they have no father, if you give birth to a child, where will you raise money to raise a child that will be born. In addition to the perception of stigma and discrimination from couples (new), mothers of three cases tell of their decision to be lone mothers, saying they are afraid of opening their hearts to new people in their lives, because the word that's always attached to “stepmom” is that many lone mothers have to look at what they want first, whether they want to have someone who knows new minds, or actually wants someone to respond to sex. Of course, these two are very different, but lone mothers have to make decisions before they go deep errands with love, because they can be repeatedly wrong, in the case of lone mothers there’s a new lover, the problem of discrimination from new lovers and the family of new lovers has been found to be lone mothers in neglected mothers and in other groups, as well as experts who have reported rejection/discrimination in a variety of negative attributes from loved ones (new). The single mother-of-five said that since before remarrying, she had been married. Sometimes the family of a new lover is afraid of thinking about taking his money. The new lover also has to take care of the stepson, if the girls don't take you to a new lover's house, do you think the new lover will sneak the money for you, or do you want to take the money to build a house for your child over there?, many thoughts cause paranoia and uncertainty, causing feelings that are not close to each other. Even when married, through a new lover's family, or even a new lover himself, there is still a paranoia about the past of lone mothers, the reasons why lone mothers, new lover families are often obsessed with gossip from locals accused of selling sexual services.

Therefore, these findings reflect the shame and self-blame of lone mothers. The emotional sensation of shame, according to Skevik (2005), is at the core of stigmatization since it not only causes self-esteem issues and psychological regression, but it may also set rules for how to cope with stigma. While interviewing candidates, it was common to see nonverbal signs of shame, such as sighing, a lowered or shaky voice, while replying to queries on stigmatization of lone mothers. The target group's narrative, on the other hand, reveals vocal expressions of lone mothers feeling humiliated. While they blame themselves for being a lone mother, they also believe it's terrible for the kids to make them grow up without a father. Additionally, some narratives depict lone mother feeling terrible for bringing up problematic and negatively labeled kids.

Discussions

This research is a study of the access to lone mother and the lifestyle path of lone mother in Chiang Mai Province. Based on the findings, it is thought that the social stigma of lone mothers in Chiang Mai has been made an institution of stigma. According to Kumar et al. (2009) have stated in their research report that stigma was developed as part of the social lullaby process. The expectation of rejecting lone mothers as friend's employees, neighbors or couples, and the expectation of degrading the value of lone mothers and looking at them as "broken hearts", it is not possible to control sexual desire and engage in premature sexual activity, these "bad/impaired wives" and "bad children" are created through daily life in Thai culture, those ideas have been developed by society, especially by social norms. For example, at Wasikasin (2002) event, it was found that the Thai family had trained to teach their daughters to keep their virginity until the wedding day. However, if you do the approach that stigma has been framed in Thai society is reflected through the perception and rejection that the target group has told the school. It's an important place to make the stigma that is shaped as an institution, although there is ambiguity in the status of lone mothers in schools, in addition to being lone mothers, there is no such thing as lone mothers. For example, the case of one lone mothers who hold a position as a teacher in a school, the institutional stigma towards lone mothers is reflected in the perspective of those who play a role and influence in that institution. For example, the school director, in that case lone mothers require maternity leave, but the school director cannot allow maternity leave, as these lone mothers are not registered to the male side, in spite of the lone mothers saying they can't register, the director continued to confirm that if the registration was not registered, it would be a serious disciplinary offence, therefore lone mothers must seek help from a friend on the register to apply for such maternity leave. (Dhedchawanagon, 2019)

Institutions like "hospitals" are also places where stigma is found, prejudice against lone mothers as such family imperfections is clearly reflected through hospital staff. For example, the case of one lone mother, from pregnancy and pregnancy, the hospital staff, whether a nurse or a doctor, always ask about the child's father until the baby is born, she has always been stressed and uncomfortable with it, in the end, they need to seek help to become a legal lyricist.

As can be seen from the perception and discrimination of stigma, the target audience experienced a variety of stigma stamps from various sources, and the factors that contributed most to stigma related to premarital sex and non-marital relationships, and being lone mothers from being abandoned by husbands. According to Link (1999), stigma is often dealt with stigma, in order to protect itself from rejection, and to eliminate opportunities and reinforce the experience of feeling different from others. With guidelines for dealing with stigma, including "confidentiality" (not telling anyone about what is present), "withdrawal" (from where it must interact with people who may not accept what they are), "educating" (about the actual information about what it is), "challenge" (to protect yourself from negative attitudes) and/or "keep a distance" (between yourself and other lone mothers to avoid those negative attitudes). Dealing with this stigma can lead to negative outcomes, such as limiting social interactions and social networks, which are directly related to social support. However, research has shown that lone mothers respond to the following stigma experiences:

Challenging, can be said to lone mothers in Chiang Mai, often using "challenges/confrontations" as a mechanism for dealing with stigma. There are nine stories of challenges/confrontations in the target audience, most of which are stigma associated with premarital sex/extramarital relationships.

Withdrawal, in addition to the "challenge/confrontation" that lone mothers Used as a mechanism for dealing with stigma, withdrawal from the target group perceived or rejected/discriminated against as a result of lone mothers and whether the cause of lone mothers is caused by what lone mothers are caused by six cases of lone mothers, reflecting the use of the withdrawal mechanism when faced with stigma, especially for neglected mothers.

Withdrawal, in addition to the "challenge/confrontation" that lone mothers use as a mechanism to deal with stigma, withdrawal from the place where the target is perceived or rejected/discriminated against due to lone mothers and regardless of the cause of the become of lone mothers, it is caused by what lone mothers have six cases, reflecting the use of the withdrawal mechanism when faced with stigma, especially for neglected mothers.

Secrecy, three cases of lone mothers, has been open about concealing their lone mothers' status, and although they don't want to keep their own secrets, they have to become lone mothers because their husbands don't accept that they are their children, but their families aren't ready to be stigmatized, and lone mothers choose to do what their families want.

Shame and Self-blame, according to Cohen (1988), says that the emotional feeling of shame is at the heart of stigma, since it not only has psychological effects, including self-esteem and regression, but it can also create guidelines for dealing with stigma. Indeed, on many occasions, answering the question of lone mothers related to stigma a non-spoken indicator of shame, including long sighs, lower tones or shaking, was found while interviewing the audience. Moreover, in case studies, interviews sometimes need to be paused for some time because lone mothers can't handle their own feelings, especially feeling ashamed, on the other hand, from the audience's narrative, there is a verbal expression of the ashamed feeling of lone mothers, while they blame themselves for causing them to become lone mothers, they still feel guilty for their children, which is why they don't have a father. In addition, some stories reflect that lone mothers feel guilty about turning their child into a troubled child and being stigmatized negatively, what's more "karma" has been found to be referred to in response to the view of being lone mothers. As Kumar et al. (2009) has claimed, cultural views are presented in terms of the terms of stigma that affect those who face it. As a Buddhist religion, it influences the attitudes of Thai life, based on the findings, the point of view of "karma" is presented in an important role. A single mother of four who is Buddhist has referred to "karma" as the reason why they must become lone mothers, whose "karma" is understood as an indication of an individual's moral actions or good deeds. Therefore, it can be said that the target audience brings “karma” to the self-blame (being lone mothers).

Self-blaming, whenever an error occurs on a daily basis, lone mothers always blame themselves first, whether they should do that or should do this, if you have a destiny mate, you'll blame yourself squarely. The result is depressed, there is confusion in itself, and it cannot move forward as it should because it remains attached to the past.

Guilt towards the child, lone mothers will always feel guilty. It's a frustrating time when you have to take care of your child on your own. Although not a direct cause, you will always feel that you are involved in that mistake and cannot stop this guilt and hold all the guilt to your own, which is why you were born without a father.

Moreover, “karma” has been found to be referred to in response to the view of becoming a lone mother, as Yang (2007) argues that the cultural view is presented as a condition of the stigma that affects those who have to face it, as mentioned earlier that Buddhism is the dominant religion that influences the attitudes of Thai people's lives. The research revealed that Buddhist lone mothers attributed their status as single parents to “karma”, which was seen as playing a significant impact. Assuming that “karma” refers to a person's moral behavior or accumulation of virtue, it may be claimed that the target group makes “karma” synonymous with self-blame.

This is in line with Jeanmahant (2008) stating that most people think “motherhood” is linked to femininity and is a position that women cannot decline since it was ingrained into the gender traits of women. Being a single mother, a situation that falls midway between “good motherhood” and “bad motherhood”, is viewed as “bad motherhood” by societies, even though “motherhood” is often built as an institution to be respected by society, but she was “left” to raise a single child, which is sometimes referred to as “being a lousy wife” and “bad lady”. This study also discovered that one must fully comprehend the process of becoming a lone mother in order to fully comprehend the process of being a lone mother. Patriarchal civilizations' creation of gender-based power relations was the process' primary viewpoint dimension. It was designed to manage a woman's sexuality; nevertheless, the technique resulted in agony, suffering, and stigmatization of women, while males were not similarly impacted. Women have managed to negotiate their way out of patriarchal civilizations and men's “perpetrators” status by deciding to employ a variety of social connections that they find more comfortable. They saw that there was still room for the development of a shifting seasonal identity. She characterizes herself as a “good woman” and a “good mother” in such a manner that it combines what patriarchal societies are made of and reinterprets them through the experience of “good women” and “good mothers” in addition to those experiences to establish the concept of being. As a result of her battle and haggling, she was able to define herself and convince others who were close to her that she was a “good parent”.

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Conclusion and suggestions

The stigma that makes lone mothers are marginalized in Thai society is that everywhere there are marginalized people living away from the center and dimensions in areas such as economic, political, social, cultural, and mainstream ideas. These people lack bargaining power, lack of education, lack of access to power, and being barred from the system of negotiating the power of the allocation of wealth resources in society. The socioeconomic context of the process becomes marginalized, the key is to exploit and generate the most economic profits, it does not take into account the impact and unfairness in society. As a result, people who have not been involved in the policy making and development strategy in various areas, the marginalized group lacks the opportunity to access resources and share the benefits of the development process. It is also highly likely to be a victim or victim of development, bear the risks or negative effects of development, or hinder development both on a sub-level and on a global scale, learning, adapting and fighting, struggling to survive or live. Therefore, it is the essence of the way of life of the marginalized population, social marginalization is associated with complex power relationships, pushing the people to the power to fall to the margins of society, although it lives in the center of the area in the geography. At the same time, it also means the process of degrading humanity, in an effort to turn people into commoditization and labeling them with a negative nature, including labeling, it is believed that any action will be a deviation or not just a thing it depends on the society in which the person is a member. For example, society determines whether the action is deviant or non-deviant, it is a matter of social feelings for certain behaviors that will give a group of people the power or advantage of another group, resulting in deprivation, punishment, and stigma that the act is an offence.

The stigma and definition of such groups is marginalized by the perceptions, thoughts and attitudes of people in society based on mainstream concepts, or perceived as hypothyroidism. This is due to the failure of the couple's life and is a major cause of problems in society due to family insecurity. For example, divorced families, and as a result of children's problems, which are the attitudes and stigma of society, and push the group into the marginalized process, as a result, society defines the role and character of lone mothers as disadvantaged, it needs to be treated differently than others, it is also not accepted by society. As a result, the social life of lone mother’s family is difficult and unfair. The idea has forced some lone mothers to become marginalized, as a result of gender inequality, they experience poverty, stigmatize or be deprived of society, many groups are not marginalized because they have both formal and informal social networks, to help make it possible to get through a crisis.

New knowledge and the effects on society and communities

As mentioned above, we should all place a focus on lone mothers in Thailand because being a lone mother's family is inevitable in today's society. Due to the increasingly complex social change conditions, this makes the family model more varied and varied. The attitudes of people in Thai society to lone mother's family women are different, both positive, compassionate and respectful aspects of child-rearing without relying on men, and a negative view that it is not possible to maintain a normal family relationship while being a lone mothers family has many reasons. For example, a husband dies, parted ways or divorces with a spouse, and lone mothers are for different reasons, the situation and views on lone mothers in each group are different, with the marginalized process of lone mothers being born out of gender inequality, wages, roles, status, stigma, and progressive deprivation. This resulted in a lack of access to the government's resources and development processes. The impact on the economic position of lone mothers leads to poverty, lack of factors that will ensure that families have an unfair quality of life. It is an issue that should be protected in the long term to prevent more violence, which can increase the problem in other ways, because it can live a family life through a crisis without relying on men and not being seen as marginalized. Implementation of government policies the family is also inserted into the mission of many agencies such as the Ministry of Labor, Ministry of Education Ministry of Social Development and Human Security Ministry of Public Health, etc. Many agencies have to do their own mission first. As a result, there is no primary host to take care of the family directly. Another finding from the study is that when people's needs are not met with government policy, they are not able to meet the needs of the public. As a result, we have made efforts to create their own space to demonstrate the power and adaptation of life under the rapid social transformation of today, with a network of groups that seek to promote learning in lone mothers family issues in Thai society. This will enable Thai society to learn from all parts of society so that everyone can truly use their potential and contribute more to society, to be able to understand the truth of what belongs to such people, and another important aim of those who work in this field is to reduce the attitude of the lone mothers as a different group, a distinction, a mistake from living a family life, to be stigmatized or to have an idea that such a group of people is a dark spot of society. The idea should be eliminated quickly so that this group of lone mothers can live in a more equal and fair society.

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Thank you informants: 18 cases of lone mothers, divided into 2 illegitimate women, illegitimate mothers (that is, a woman who has a child without marriage and the burden of raising a child alone), 4 case is an abandoned mother (that is, women who have to take care of their children alone which caused the husband to neglect without any responsibility for at least 6 months), 5 case is a mother who is divorced from her husband (that is, women who have to

take care of their children alone at least 6 months after the divorce registration with her husband), 4 cases and the mother whose husband died (that is, a woman who had to take care of her child by herself after her husband died, which the child is not over 20 years old) 2 cases are lone mothers, other types 1 case and 1 case is important information provider.

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A Study of the Condition of Morality and Ethics as a Teacher in the 21st Century and the Public Mind of Student Teachers

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Abstract

The purpose of this survey research was to learn more about public attitudes of student teachers as well as the morals and ethics of instructors in the twenty-first century. There is 160 second-year students in the population and 115 of them make up the sample group. The method involves looking at morality, twenty-first-century teaching ethics, and public opinion. Questionnaires that were examined by frequency distribution, percentage, and mean ($\overline{X}$) were the instruments utilized to gather the data, as well as and standard deviation (S.D.). The results of a study on the condition of morality and ethics of teachers in the 21st century and the public mind of student teachers from the questionnaire, it was found that the basic information of the respondents when classified by gender, in this regard 36.52% were males, and 63.48% were females. In this regard, 56.53% were in English, and 43.47% were in early childhood education. As for the experience of self-improvement in moral, ethical and public mind development, 17.40 percent of students had participated in the activities, and 82.60 percent had never participated. It was found that the student-teacher's morality and ethics of being a teacher in the 21st century and the overall public mind of student teachers were at a moderate level ($\overline{X}$ = 3.40, S.D =. 0.75).

Keywords: Condition study, Morality and ethics, Public mind

Introduction

The 21st century, the first of the third millennium, is marked by several developments that have had a significant impact on people's lives in society as a result of the development of information technology, and there has been a rapid change in all aspects, and such changes affect the livelihoods the performance of human beings in society and causes many problems. Lack of morals, ethics, or environment for dealing with issues that are not sufficiently effective is one of the key causes, education management is crucial in order to meet the difficulties posed by these issues and find solutions to maintain progress. It is crucial to invest in education in order to help people reach their full potential and become individuals with good morals and ethics, the ability to think critically, solve problems creatively, the capacity for self-learning, and the ability to adapt to new situations and live happily in society (Charoenwongsak, 2003). Less moral and ethical concerns nowadays lead to a lot of troubles thus, it has become a crucial part of education to create individuals of better caliber. Countries all over the world focus on educational management that emphasizes the development of students in all areas, and moral and ethical development is the area that currently receives more attention than intelligence, even though it is not possible and can be seen plainly just like any other aspect, and Khammanee (2005) mentioned that the necessary learning for learners can be divided into 5 groups: (1) core knowledge, (2) morals and attributes, (3) cognitive skills, which include communication skills, analytical thinking and creativity, (4) social skills, including self and social responsibility, and (5) technological skills. Which of the five skills will lead to quality living in the 21st century, to promote learning and make it as successful as possible, instructors must find a method to incorporate academic material, morals, and ethics, education is a key instrument for producing decent citizens who can advance the country. One definition of education is growth, in which instructors are substantially involved, especially in growing quality individuals using instruments called education. Providing high-quality education aids in the development of people who are of good quality, i.e., who are both intelligent and good. As a result, teachers have a responsibility to help individuals, especially young people, acquire desirable qualities through various learning procedures that prepare, reinforce, and improve people's knowledge of many sciences, skilled in specific fields of employment, establishing a sense of obligation to oneself, society, and the country in upholding its security and independence. Additionally, professional instructors have a responsibility to foster excellent character in their students, these traits should include being polite, honest, thrifty, self-reliant, and able to collaborate with others, they should also dress correctly for the weather and display patriotism. They possess the intelligence, emotional stability, and capacity to face and solve difficulties. For instance, they can use their religious beliefs as a guide to live a calm existence.

Regarding the role of teachers in the twenty-first century, Sinlarat (2017) offered a viewpoint on the subject of Thai teachers in the twenty-first century, arguing that educational reforms must be made with a focus on changing the learning culture of Thai children in order for them to learn how to create, plan jointly, distinguish, and apply, as well as how to conduct research, engage in exploration, produce results, and plan and process. The important variable in this matter is the teacher; (1) teachers must be able to integrate information that is utilized to grow and produce new knowledge in order to create and integrate it, (2) be able to think analytically and creatively, educators must help kids develop these abilities so they can think critically and be creative in meaningful ways, (3) teachers must abide by their profession's standards of conduct if they want to be strong role models for others and convince them to give back to society. Maintain moral principles, act in a way that benefits those in the society you live in, and adhere to the rules that society and one's own self should follow, teachers should do all of these things in order to assist students learn, this is for children to be able to create and develop their own body of knowledge.

According to the Constitution of the Kingdom of Thailand 2017, Section 257, the reform of the country under this section, actions must be taken to achieve the following goals: (1) the country enjoys peace, harmony, sustainable development in line with the sufficiency economic idea, and there is a balance between physical and mental growth. “All Thai people obtain great education and lifelong learning”, the National Education Plan (2017-2036) vision said, live contentedly in accordance with the sufficiency economics and 21st century worldwide transformation it has three objectives; (1) Thai people make good citizens, with 21st century learning traits and abilities, as well as competences in line with the National Education Act, the 20-year National Strategy, and the Thailand 4.0 strategy, (2) In accordance with the sufficiency economic theory, Thai society is a society of learning, morality, and ethics, knowing love, and working together for the country's sustainable growth, (3) Thailand crosses the middle-income trap and the inequality within the country is reduced. The conceptual underpinning of the King's science is a philosophy that emphasizes the existence and behavior of people at all levels, from the family to the community to the state, in the development and administration of the nation in a middle way, by only focusing on economic development in order to keep up with the globalized world, to maintain equilibrium and to be prepared to accept quick and extensive changes in the material, social, environmental, and cultural aspects of life (Office of the Secretariat of the Teachers Council of Thailand, 2006). The Sufficiency Economy Philosophy guiding principles are moderation, sufficiency, rationality, including the need for a respectable level of self-immunity against any effects of both internal and external changes in fundamental conditions (morality brings knowledge), and the need to rely on knowledge while exercising caution, the nation citizens, especially those who work as instructors, must have a sense of morals and ethics, honesty, honesty, have the necessary information, and live patiently. This includes exercising prudence, especially when using prominent academics in planning and every stage of the process. (Office of the Secretariat of the Teachers Council of Thailand, 2005)

To live life with pure perseverance, to carry on the aspirations and for the stability, prosperity, and sustainability of the Kingdom of Thailand in succession to the King’s wisdom, one must practice perseverance, mindfulness, wisdom, and prudence in the philosophical approach of the sufficiency economy by applying “The King’s wisdom”. Before the rest of the world wakes up, the 9th King development guidelines, which place a strong, all-encompassing, long-term focus on sustainability, will be implemented as a development strategy aimed at enhancing Thai people's quality of life. The elements of royal science are education, health, productivity, production, research, risk management, nature conservation, and the philosophy of sufficiency economy. Each element improves the standard of living for everyone while also supporting the King’s wisdom, the body of knowledge on sustainable development, and its guiding principles for sustainable development, which are as follows: (1) Philosophy's guiding principles are moderation, rationality, self-immunity, knowledge-based, and moral-based, starting with the adequate economy, (2) The three pillars of monarchical science are comprehending, gaining access to, and developing people, objects, society, the environment, and culture. Before “reach” tests it out until it actually works by blasting from the inside, understanding the development prospects, and cultivating social intelligence, “to understand” in this context refers to making use of previously available knowledge through the application of empirical data analysis and study, “developing” is the process of beginning anything from nothing, being self-sufficient, and having a model for sharing knowledge so that others may learn it and apply it, (3) Utilizing royal science It must be carried out with fervor, love, and heart; sustainably; independently from textbooks; and specifically tailored to each individual, their surroundings, location, and circumstances, and (4) The result of the King's science is the land of justice and happiness for the Siamese people, which is sustainable development, in accordance with His Majesty's decree of sufficiency, love, and unity.

The National Qualifications Framework for Higher Education defines learning outcomes for behavior change that are expected for students to develop in at least five areas, and learning management at the higher education level has set learning and learning outcome standards in accordance with this framework namely; (1) the term “ethics and morals” refers to the formation of moral and ethical behaviors and habits, as well as to individual and group responsibility, the capacity to change one's lifestyle when it conflicts with one's moral principles, and the formation of moral and ethical behaviors in both social and personal contexts, (2) knowledge is the capacity to comprehend, reason about, and communicate information, it also includes the capacity to evaluate and categorize theoretical facts as well as a variety of other procedures, (3) when analyzing events and using information, comprehension of ideas, principles, theories, and procedures to analytical thinking and problem solving when confronted with novel or unexpected situations, cognitive skills are referred to, (4) interpersonal skills and responsibility refers to the capacity for teamwork, leadership qualities, social and personal accountability, and the capacity for self-directed learning, and (5) numerical analysis, communication, and Information technology skills, which refers to the aptitude for using statistical and mathematical methods in numerical analysis. The use of information technology and the capacity for spoken and written communication, which must be seamlessly connected, and the development of these talents in all five areas is the responsibility of instructors, but they also have time to devote to creating teaching and learning models that use the King's ideas to improve morals, ethics, and public morality. The goal of this research is to develop a learning management model by examining the fundamentals of teaching and learning, the morality and ethics of teaching in the twenty-first century, and the public perceptions of student teachers in order to use this information as a foundation for future learning management style development.

The term "learning management model" (also known as "teaching learning model" or "teaching system") refers to a structure, element of teaching operation that has been organized into a system related to theory, learning principles, or teaching in a manner that is based on and has been shown to be effective in helping students achieve their unique learning objectives. Each teaching method may have a distinct endpoint, typically consisting of the theory of principles it upholds and a special teaching method that will guide the learner to a certain aim in that particular form, this is because each teaching method will have a single specialized emphasis. With various techniques, approaches, components, and forms appropriate for learning requirements based on the basic education curriculum, each model seeks to educate learners in a targeted manner. Which have forms according to the classification of those patterns according to the nature of the particular purpose or intent of the pattern which can be grouped into 5 categories as follows; (1) instructional model with emphasis on cognitive domain development, (2) teaching model that emphasizes on the development of affective domain, (3) a teaching style that emphasizes the development of range skills, (4) teaching and learning style that emphasizes on the development of process skills, (5) teaching model that emphasizes integration. The development recommendations of the ^{9th} and 10^{th} Kings, which are comprehensive, long-sighted, and place an emphasis on sustainability, are applied in this research as part of a learning model that promotes integration through integrating the King's science. In this research, a learning model developed, using a three-step process based on the concept of Maker & Neilson (1995) was used, including teaching analysis, instructional design and teaching evaluation, and used as a guideline for the development of learning styles.

Anyhow, professionally in accordance with the teacher's council of Thailand's announcement on standards of knowledge and professional experience, and in accordance with the teacher's council regulations on teacher profession (No. 4, B.E. 2018). A standard of knowledge, i.e., understanding of the first area, i.e., the change in the world's, societies, and the idea of the sufficiency economy philosophy, has been defined as being the minimum need for knowledge and experience in the teaching profession. This must effectively apply the sufficiency economy philosophy in learning management for learners and must organize the knowledge, changing social and political contexts, and the sufficiency economy philosophy. Its key competencies include understanding how society both inside and outside the country is changing and how that is affecting education. It is essential for educational institutions that produce teachers to provide teaching and learning to develop student teachers in order for them to meet the objectives and standards of professional knowledge and defined performance. Additionally, in terms of professional experience standards, one must perform the work of a teacher professional and act in accordance with the professional ethics of teachers. Virtue is a positive quality, or conduct, that is practiced until it becomes a habit and how a person behaves in accordance with the concepts and norms of society in terms of behavior and ethics, according to Good (1973). However, the code of ethics for the teaching profession was separated into five categories in 2005 under Professional Standards and Professional Ethics 2005 (Secretariat Office of the Teachers Council of Thailand, 2006); (1) self-respect: teachers must exercise self-control, cultivate their professional identities, and maintain a constant awareness of the latest trends in academia, business, society and politics, (2) professional ethics: teachers must have these values: love, honesty, and belief has a strong sense of professional responsibility and behaves well in a professional setting, (3) teachers must love, have mercy, care to aid, encourage, and support students and service receivers in line with their responsibilities and tasks equally, they must also foster learning, skills, and good habits, teachers must also act politely toward both students and service recipients, set a positive example with your actions, words, and thoughts, teachers must serve with honesty and equity, without expecting or taking advantages from the exercise of their position in an improper manner, they must not act in a way that is detrimental to the physical, intellectual, mental, emotional, or social well-being of students or service receivers, (4) ethics with other practitioners: teachers should support one another in a positive way by upholding the faculty's moral code, (5) social ethics: teachers should act as role models in the preservation and growth of the economy, society, religion, art and culture, wisdom, and environment, they should also uphold the democratic system of monarchy, in which the king serves as head of state. At the meeting No. 5/2013 dated May 16, 2013 with the approval of the Minister of Education the Teachers Council of Thailand Board therefore issues the regulations of the Teachers Council of Thailand on professional ethics as follows; article 1 this regulation is called “The Teachers Council's Regulations on Professional Ethics 2013” has clarified what professional ethics imply this means that in order to protect and advance their reputations, educational professionals must abide by norms of conduct that are established as patterns of behavior, and the reputation of educational professionals as trustworthy providers of services to society, bringing with it honor and a sense of professional dignity. As stated in article 6, educational professionals must behave in accordance with professional ethics and behavioral patterns according to professional ethics. According to section 1 of article 7 code of conduct, educational professionals must always maintain their self-discipline, grow professionally, and have the personality and vision to keep up with changes in science, economy, society, and politics. Section 2 of the code of professional ethics in article 8 states that educational professionals must be loving, faithful, honest, responsible for the profession, and are good members of the professional body. Education professionals are required to love, be kind, compassionate, aid, encourage, and support students and others who receive services in line with their responsibilities and obligations on an equal footing, according to section 3 of the code of conduct for clients in article 9. Article 10 educational professionals must encourage students to develop healthy study habits, skills, and knowledge as well as to carry out their responsibilities honestly and to the best of their abilities. Article 11 educators must behave themselves in a way that sets an example for others, including vocally, physically, and intellectually. Article 12 educational professional practitioners must not act against the students' physical, intellectual, mental, emotional and social development, and service recipients. Article 13 educational professional practitioners must serve with sincerity and equality without demanding or accepting benefits from the abuse of position. Section 4 of the code of conduct for co-professionals in article 14 states that educational professionals should support each other constructively, by adhering to the moral system, creating unity among the faculty. According to article 15 section 5 social ethics, educators should act as leaders in safeguarding the public interest and defending the democratic system of government with the

King as Head of State, as well as in the growth of the economy, society, religion, art, and culture.

According to Prepool research (2019), a model for the ethical growth of teachers was discovered in the form of the DEP Model, where “D” stands for development, “E” for ethics, and “P” for participation. These three components must be built via dominating oneself, others, and jobs. Teachers were shown to have stronger self-occupation skills than job- and people-occupied skills, which was consistent with 21st century skills, such as public-mindedness. This includes components related to the crucial teaching profession. In terms of the obligation to take part in caring, there are three indicators: performing duties, giving of one's time to the community, and engaging in activities that advance the common good. Thus, it is essential to train student instructors in accordance with Albert Bandura Social learning theory of 1997 (Bandura, 1997) which holds that behavioral changes are not exclusively a result of environmental changes. It must interact with a variety of things, including thoughts, convictions, individuals, societal changes, and both internal and external elements that will assist student teachers develop a sense of civic responsibility.

Based on this data, the researcher came to the conclusion that it would be useful to investigate the morality and ethics of teachers in the twenty-first century as well as the public perceptions of student teachers in order to use the data as a guideline for creating an applied learning management model. King's ideas to improve teachers' morals and ethics in the twenty-first century, as well as public opinion for students and instructors are still relevant today.

Research Objectives

To study the condition of morality and ethics as a teacher in the 21st century and the public mind of student teachers.

Conceptual Framework

The researcher recognized the significance of education management in the fields of morals and ethics, teaching in the twenty-first century, and public perception in light of such relevance and requirement. According to the study conceptual framework, the researcher has investigated and assembled the idea associated theories desirable essential morality and ethics, morality, professional standards of knowledge, morality and ethics of teachers in the 21st century, and public mind for teachers.

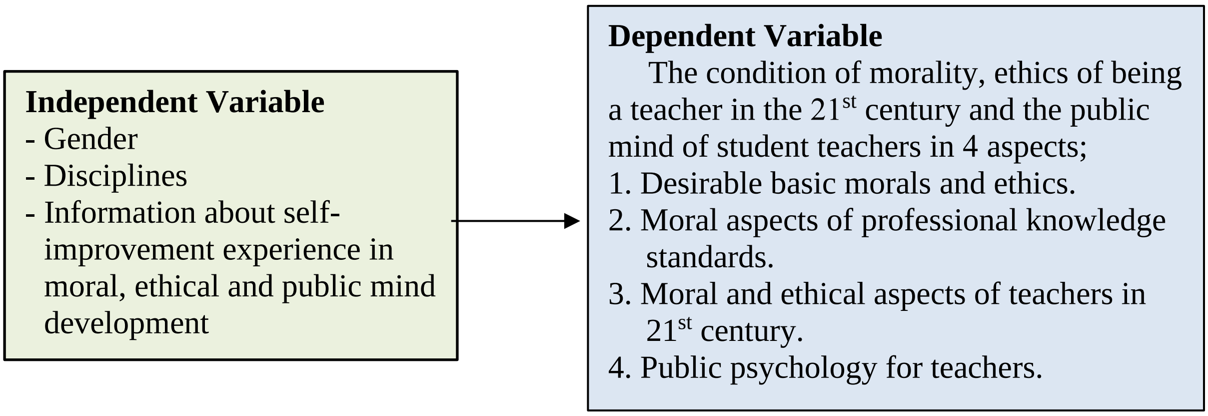

Figure 1 Research Conceptual Framework
(Source: Kongterm, 2022)

Methodology

This study employs survey research as its quantitative research model, using a questionnaire with the following information; it was possible to research the morality, ethics, modern teaching practices, and public perceptions of student teachers.

Content

Synthetic analysis of the 10 morals and ethical principles for teachers and the subject matter of King Rama IX is as follows: professional ethics standards for teachers' morality, ethics, teachers in the twenty-first century, and public opinion, evaluate the relationship between the ethics and virtues of being an effective teacher and public speaker using research papers and relevant sources, to select the concepts of the King that are consistent and relevant and to define questions in creating a questionnaire.

Resource Scope

In the study of the state of morality, ethics, teacher ethics in the 21st century and the public mind, the population in the study were, the students of the Faculty of Education of Phetchabun Rajabhat University, are second-year students in the first semester of the academic year 2020, totaling 160 students, and the sample group is students of the Faculty of Education of Phetchabun Rajabhat University, 115 students in the first semester of the 2020 academic year, obtained by simple random sampling using the Krejcie & Morgan random table (1970).

Variable Scope

The factors that were looked at were gender, area of study, and self-improvement in terms of moral, ethical, and public mind development, and student attitudes on the morality and ethics of instructors in the twenty-first century and in the public consciousness, in terms of fundamental and desired ethics, in terms of knowledge and professional standards, and in terms of public opinion.

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Research Tools

The scope of the variables analyzed was the condition of morals, ethics, becoming a teacher in the 21st century, and the public consciousness of student teachers, the study methods include a questionnaire for students on these topics. Regarding the morality of instructors in the twenty-first century, fundamental ethics, and desired ethics, ethical standards for knowledge and professionals, and moral ethics in the public's thinking. In order to explore the principles of morality and ethics of 21st century instructors and the public mind and establish a model of learning, the researcher built the instruments utilized in this research using a questionnaire-style analysis of relevant articles and research. It is divided into 3 parts which are; part 1 basic information of the respondents, part 2 moral and ethical requirements for teaching in the twenty-first century are broken down into four categories: desirable basic ethics, morality, professional knowledge standards, and morality and ethics of teachers in the twenty-first century, as well as twenty-first century and the public mind for teachers, the questionnaire was a 50-item, 5-level rating scale based on the Likert Scale (1967) method, divided into 5 levels of measurement.

However, in part 3 open-ended questions, additional suggestions, check the quality of the questionnaire by presenting the generated questionnaire to 5 experts. Specifically, 1 curriculum and teaching expert, 2 measurement and evaluation experts, and 2 instructors with more than 10 years of experience in higher education teaching. Content validity is determined by looking at the Index of Item Objective Congruence (IOC), which has a value between 0.60 and 1.00 for 55 items and meets all eligibility requirements, and finds the confidence value Reliability of the questionnaire, by finding Cronbach (1970) alpha coefficient with full reliability of 0.98. Then take suggestions from experts to improve, adjust the language to be concise and shorter, and used to collect data with students by making a letter to the branch president asking for support in data collection in the 4-6 week, semester 1 of the academic year 2020. Finally, the data were analyzed by means ($\overline{X}$) and standard deviation (S.D.).

Results

The findings of a study on the morality and ethics of teachers in the twenty-first century and the public mindset of teacher students were gathered from 115 students in the first semester of the academic year 2020 at Phetchabun Rajabhat University, Faculty of Education, who studied a total of 4 disciplines in the learning management science course. The basic information of the respondents when classified by gender 36.52% was male, and 63.48% were female. They studied English at 56.53%, and in early childhood education 43.47%. As for the experience of self-improvement in moral, ethical and public mind development, 17.40 percent had participated, and 82.60 percent had never participated, and the results are summarized in the following table.

Table 1 Results of a study of the morality and ethics of teaching in the 21st century and the public mind of student teachers

Topic	$\overline{X}$	S.D.	Interpret
1. Desirable basic moral and ethical aspects	3.69	0.71	a lot
2. Morality and ethics, professional standards	3.46	0.64	moderate
3. Moral and ethical aspects of teachers in the 21st century	3.10	0.81	moderate
4. Public mind for teachers	3.35	0.87	moderate
Total	**3.40**	**3.35**	**moderate**

From table 1 it was found that the student-teacher's morality and ethics of being a teacher in the 21st century and the overall public mind were at the level, moderate has a mean of 3.40, a standard deviation of 0.75, and when each factor was taken into account, it was discovered that the ideal ethical basis whose mean value is 3.69 and whose standard deviation is 0.71 is the most crucial one, next come morals, ethics, and professional standards In terms of public opinion of teachers, the mean is 3.35 and the standard deviation is 0.87, with a mean of 3.46, 0.64, and 0.64 respectively, and the moderate side in the least the mean and standard deviation for teachers in the twenty-first century in terms of morals and ethics were 3.10 and 0.81, respectively, and conduct that is common among students, such as being truthful about one's obligations and taking full responsibility for achieving the targets established, is prepared to pursue a career as a teacher and is dedicated to the growth of pupils, they also possess the spirit of a teacher who serves as a good role model.

Discussions

The study's findings may be used to evaluate how student instructors' perceptions of the public and their attitudes about morality, ethics, and teaching in the twenty-first century fared. It was found that the basic information of the respondents when classified by gender 36.52% were male, 63.48% were female, 56.53% studied English, and 43.47% were in early childhood education.

The instructors' morals and ethics as teachers in the 21st century was determined to be at a reasonable level, with a mean of 3.40 and a standard deviation of 0.75, while 82.60% had never engaged in the experience of self-improvement in moral, ethical, and public mind development, and when considering each aspect, it was found that the highest aspect was the desirable basic morality aspect, with a mean of 3.69, a standard deviation of 0.71, proceeded by in terms of morals and professional standards 3.46 was the mean, 0.64 was the standard deviation, the moral aspect of teachers in the 21st century had a mean of 3.10 and a standard deviation of 0.81, and 3.35 was the mean, 0.87 was the standard deviation for public opinion of teachers, and the least aspect at the moderate level were in terms of morality and ethics of teachers in the 21st century, the mean was 3.10, the standard deviation was 0.81 respectively. This could be because students are still in their second year of study and ethical standards in various areas, such as dominating others, holding jobs, cooperating, and internships, have not been applied in educational institutions, leading to a moderate level. According to Prepool research (2019), a model for the ethical growth of teachers was discovered in the form of the DEP Model, where "D" stands for development, "E" for ethics, and "P" for participation. This must be developed by dominating oneself, one's peers, and one's work, it has been discovered that teachers are better at dominating themselves than at dominating their peers or their work, and this finding should serve as a guide for choosing the subject matter and instructional style of future lessons, and students who are good role models and who are prepared to work as teachers demonstrate a variety of behaviors, including being honest with one's own obligations, taking responsibility for the best possible achievement of the goals set, being committed to learner development, and having a spirit of being a teacher. In line with Panjan (2021) research, this investigated the model of improving morals and ethics in accordance with the framework of credentials requirements. At the national higher education level, the goal is to study the moral and ethical enhancement in accordance with the national higher education standards framework's qualifications framework for higher education, as well as to develop and evaluate a model for improving morality and ethics in accordance with those standards. It was found that the results of enhancing morality and ethics for students according to the national higher education qualifications framework the overall picture of the 7 areas are as follows: (1) discipline, (2) responsibility, (3) integrity, (4) sacrifice, (5) being a good role model, (6) understanding others, and (7) the aspect of understanding the world. It was found that the overall morality and ethics were strengthened by the students at a high level.

Conclusion and suggestions

Remarkable discoveries in line with Thongdee (2001) theory, morality for teachers have qualities and have significance for the individual, society, and the country. Most importantly, however it must be based on psychologically sound moral and ethical principles, which form the cornerstone of human beings and desirable correct virtues. There must be a suitable culture of living and devotion to the sufficiency economic theory, and it must be applied effectively in teaching and learning in the 21st century, according to research. According to Langka (2017) research on the future and traits of Thai teachers in the years 2017–2026, it was discovered that instructors must adhere to moral and ethical standards that are modest, rational, and unwavering in terms of knowledge and morals. The most ethical teacher will be well-versed in the subject, considerate, specialized, capable of high-level cognition, and must possess teacher ethics, teacher ethics, and must be capable of adapting to the function of teachers in the twenty-first century, have a public mindset, and be accountable to students, the community, and society.

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Additionally, there has to be educational changes that concentrate on improving the learning culture of Thai students, according to Sinlarat (2000) research, which offered opinions on the topic of Thai teachers in the 21st century. Where teachers must be able to create and integrate knowledge, teachers must also be able to integrate knowledge that is used to develop new knowledge, teachers must also have a strong sense of morality, ethics, and code of conduct in order to influence others to act in the best interests of society. The findings indicate the student-morality teacher's and ethics as a teacher in the 21st century, and the general public mind, are at a reasonable level, suggest that teachers must uphold professional ethics, preserve morals, and do so. The National Education Plan (2017–2036) vision, which states that “All Thai people receive quality education and lifelong learning, live happily in line with the philosophy of sufficiency economy, and change the world in the 21st century”, must therefore be taken into consideration when planning preparation, one major goal is for Thai people to be decent citizens, with competences in line with the national education act and the requirements of the constitution of the Kingdom of Thailand, they should also possess 21st century learning traits and abilities, the Thailand 4.0 strategy as well as the 20-year national strategy, (2) Thai society is a learning society that values morals and ethics, understands love and unity, and unites its efforts in support of the nation's sustained economic growth, and the results of the research are consistent with Ocharos (2017) researching a model for enhancing ethics and codes of conduct of the police profession for police sergeants, to research the state of improving the ethics and rules of behavior for police sergeants, results of research It was shown that police sergeant students often had a moderate level of improvement in their professional and personal ethics.

However, in the recommendation section it was found that the public opinion of student teachers should study the morality and ethics of teachers in all fields of the Faculty of Education, according to research on the study of morality and ethics of teachers in the twenty-first century; this will make the total knowledge more thorough. The findings are consequently utilized to suggest an application for the research results, namely that the research results may be employed in drafting, as this research is a study of fundamental data for the construction of a learning management model. According to the curriculum in the area of data collection and integration into the curricula of the Faculty of Education or Faculty with course descriptions connected to notion of King's wisdom, the learning management model is a guideline for teaching and learning in a variety of areas.

New knowledge and the effects on society and communities

The teaching profession places a high value on morality and ethics, so student teachers should be aware of this in order to apply what they learn in the classroom to working-class society in the future. In the event of accountability and honesty in executing obligations, for instance, sticking to the advantages that will accrue to the public, it is vital to manage one's own conduct to be in compliance with the norms of the agency and society. The student's morals and ethics, which provide a positive example for behavior in both personal and professional contexts, as well as in the spirit of community and democracy. The emphasis on good living must come from those who are in charge of delivering education, including leading a life based on the idea of sufficiency, avoiding vices, and being aware of harmony and a democratic way of life. Along with passion and faith for one's career, growth in education management may be attained by devoting time to tasks with dedication and perseverance with the goal of achievement, or even professional obligations, which involve carrying out tasks with regard to truth, integrity, and the interests of the organization and service recipients, among others. The five fundamental principles, the sufficiency economic concept, and other ideologies that make up the teaching and educational professions are what matter.

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Competency-Based School Curriculum: A Development and Implementation Framework

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Abstract

Competency-based school curriculum development is a key mechanism for successful implementation of the national curriculum framework. However, the problem discovered is that schools continue to lack knowledge and clear guidelines, so the purpose of this study is to prepare the development process framework for competency-based school curriculum of pilot schools in the education sandbox. This study employs an explanatory sequential design mixed-method research methodology, beginning with quantitative research using online questionnaires to survey opinions from 224 pilot schools in six areas of the education sandbox, then moving on to a qualitative multi-case study using focus group discussions with administrators and teachers from 18 schools in six areas, and finally a connoisseurship of 15 experts. According to the findings, the main idea behind the development process framework for competency-based school curriculum is to focus on success in developing learners' learning competencies related to work and life. The curriculum development process includes the following components: 1) competency-based curriculum design focuses on determining core competencies and developing appropriate learning designs; 2) learning management that focuses on competency development and learning assessment that emphasizes individual progress; and 3) competency-based curriculum management, which includes appropriate study time structure, adequate preparation for action, and evaluation for continuous improvement. These findings are critical for implementing the national curriculum framework effectively.

Keywords: Curriculum framework, Competency-based curriculum, School curriculum, Education sandbox, Basic education

Introduction

The development of national curricula is an important mechanism for improving educational quality and assisting in the reduction of inequity in the country. The 2008 Basic Education Core Curriculum is the curriculum used in Thailand today to improve learner quality. It is a curriculum with learning standards and indicators for 8 subject areas (Ministry of Education, 2009) which has been used as a direction for student development for nearly 15 years. However, it was found that learner quality is still lower than expectation with low level of deep conceptual understanding and lack of application ability in daily lives (Independent Committee for Education Reform (ICER), 2019). At present, Thailand has driven the development of new curriculum, utilizing the concept of competency-based approach which allows learners to develop the competencies necessary for real life situations (Anderson-Levitt, 2017, Mulenga & Kabombwe, 2019; Thummaphan, 2021; Office of the Education Council, 2019). The initiated curriculum document is the (draft) Basic Education Curriculum Framework B.E. …, which is called (draft) Basic Education Curriculum Framework hereafter, emphasizing the ability or competency of learners as a goal of educational provision (Office of the Basic Education Commission, 2021a). The operation is in the process of defining the details of each component of the curriculum framework as well as the guidelines for implementing it in schools, and will be used in pilot schools in education sandboxes that can manage their own education independently under the supervision of the provincial steering committee. According to the Education Sandbox Act B.E. 2019 (2019), implementation of the (draft) Basic Education Curriculum Framework in education sandboxes is an important step of the development process of national curriculum.

It is necessary to obtain information from practitioners during the development of national curriculum in order to determine whether the (draft) Basic Education Curriculum Framework is of appropriate quality or not. Examining the opinions of pilot schools in education sandboxes is an extremely good opportunity to consider the (draft) Basic Education Curriculum Framework's suitability. Furthermore, the school curriculum is a critical mechanism for implementing the competency-based concept in classrooms. The emphasis is on providing each learner with the resources and opportunities to learn based on their needs (Rajurkar, Chavan, Kachewar, & Giri, 2019) to improve equity in education that is a significant goal of the Education Sandbox Act B.E. 2019. Understanding how schools develop school curriculum using a competency-based approach is therefore an important body of knowledge that can be used to promote the effective use of national curriculum.

While such studies are needed, there are few studies that focus on the framework of the curriculum development and implementation process of schools that focus on the concept of competency-based education. Although there is research on curriculum development, the content focuses on overall curriculum development and use, with such little emphasis on the development process (Jarernrak, 2022). The lack of a framework that can be used as a suitable model will result in a lack of guidelines that schools can effectively use (Bravo & Alves, 2019).

In comparison to the critical importance of schools being able to develop competency-based school curriculum, a lack of knowledge about the curriculum development framework can have unexpected negative consequences.

As a result, the purpose of the study is to investigate school principals', teachers', and other stakeholders' perspectives and recommendations on the Basic Education Curriculum Framework, as well as to develop and implement a framework for the development and implementation of school curriculum for pilot schools in education sandboxes with crucial domains of practice. This research contributes to gaining knowledge about the establishment of a school-level curriculum that is appropriate and consistent with the principles of competency-based curricula, as well as supporting policy formulation to promote school implementation of competency-based curricula in order to create quality and equality in education.

Research Objective:

1) To study the opinions and recommendations of school principals, teachers, and other stakeholders in pilot schools in education sandboxes regarding the (draft) Basic Education Curriculum Framework.

2) To establish a framework for the development and implementation of competency-based school curriculum in pilot schools in education sandboxes.

Review Literature:

Curriculum development

Curriculum development concepts vary. Tyler (1949) proposes that curriculum development must address four fundamental questions: the purpose of education that the school wants students to achieve; educational experience that the school organizes to achieve its goals; educational experience organization for effective teaching; and methods of assessment to determine whether the intended purpose is met. Another curriculum development model is bottom up (Taba, 1962), which proposes that curriculum should be developed by teachers rather than executives. The curriculum development process consists of 7 steps: problem analysis, determining the purpose of curriculum content selection, content collection, choosing a learning experience, organizing selected learning experiences, and evaluation (Chookhampaeng, 2008). To develop a curriculum for use throughout the educational system, a prototype curriculum must first be drafted and tested. Bua-Sri (1999) described the curriculum development process as follows: establishing a prototype curriculum, designing the master curriculum, implementing the curriculum, and evaluating the curriculum. Sinlarat (2018) discussed the curriculum development process, which consists of four major processes: objective determination, content determination, learning methods, and assessment, and overall curriculum evaluation, which is similar to the concept of Bua-Sri (1999) in terms of curriculum implementation and evaluation. It can be concluded that curriculum development consists of creating a prototype curriculum in which objectives and subject matter are defined, preparing the master curriculum, implementing the curriculum, and evaluating the overall curriculum. It is possible to say that important aspects of curriculum development include a clear understanding of curriculum needs, the meaning of education, curriculum, teaching and learning, curriculum types, the curriculum development process, social influence, educational standards and authority, social and national needs, and a vision of an authority that reconciles with stakeholders (Rajurkar, et al., 2019). To summarize, curriculum development is a complex and multifaceted process, and curriculum development for schools should be framed so that schools can effectively operate it and personalize it to their specific context.

Implementing a national curriculum necessitates the development of a school curriculum that transfers concepts into classroom practice. A school curriculum is a document prepared by a group of people at the school level that serves as a plan or a guideline for organizing the overall experience for learners (Bureau of Academic Affairs and Educational Standards, 2008). The core curriculum and a local curriculum focus are usually used to develop school curriculum. Furthermore, each school can include additional important aspects based on the context and focus of the school, as well as the needs and characteristics of the learners. The curriculum is typically implemented in three steps: planning, preparation, and implementation (Sinlarat, 2018). Curriculum administration and services, learning management, and support and promotion of curriculum use were the three main tasks in the context of competency-based curriculum implementation (Jarernrak, 2022). However, the implementation of competency-based school curriculum discovered practical challenging issues in administrators' and teachers' knowledge and understanding of the curriculum, freedom of curriculum management, and clarity on learner assessment methods and tools (Pamies et al., 2015; Mkonongwa, 2018), Mulenga & Kabombwe, 2019; Jarernrak, 2022). Specifically, according to the study of Kabombwe & Mulenga (2019), 67% of history teachers don't grasp what a competency-based curriculum is. These points demonstrate that developing and implementing a competency-based curriculum at the school level presents some difficulties that must be addressed.

(Draft) Basic Education Curriculum Framework B.E. ...

The (draft) Basic Education Curriculum Framework aims to develop all learners' core competencies so that they can reach their full potential (Office of the Basic Education Commission, 2021a; 2021b). There are 11 essential components: (1) Fundamentals of curriculum development; (2) Vision; (3) Curriculum principles; (4) Curriculum Objectives; (5) Desirable characteristics; (6) Six core competencies and 10 competency levels; (7) Learning areas; (8) Relationship between core competencies with the content of 7 learning areas (in the 1st grade level); (9) the structure of the study time; (10) the learning management approach and assessment; and (11) curriculum management guidelines. The six core competencies are (1) self-management; (2) higher-order thinking; (3) communication; (4) teamwork and collaboration; (5) active citizenship; and (6) sustainable coexistence with nature and science. Level 1 learning areas include Thai language, mathematics, English language, arts, health and physical education, social studies, and science and natural systems. This draft curriculum framework leads to various educational approaches. By the way, due to the practitioner relevance, the components of learning and assessment were expanded into elements, and the major components of (1) Fundamentals of curriculum development; (2) Vision; (3) Curriculum principles; (4) Curriculum Objectives; and (5) Desirable characteristics were collapsed and reported as prologue in the quantitative part of this research.

Pilot School Project for the (draft) Basic Education Curriculum Framework B.E. ... in Educational Sandbox

The Education Sandbox Act was passed in 2019 with the intent of enhancing the country's education. It became effective on April 30, 2019 (Education sandbox Act, 2019). Education sandbox refers to the area designated as administrative reform for educational management to support the creation of educational innovations covering concepts, methods, processes, teaching materials, or new forms of management that promote learner learning and education management. Currently, six education sandboxes have been established in Satun, Rayong, Si Sa Ket, Chiang Mai, Kanchanaburi, and three Southern Border Provinces (Narathiwat, Yala, Pattani). The Ministry of Education gives these education sandboxes the opportunity to develop new educational management guidelines to improve educational quality and serve as a model for future education management.

The Pilot School Project is an initiative of the Basic Education Commission's Bureau of Academic Affairs and Educational Standards. The objective of this project is to investigate the application of the (draft) Basic Education Curriculum Framework in the context of the school and use the information gathered to modify it (Office of the Basic Education Commission, 2021b). The project is being implemented in 2 phases: Phase 1: While schools are developing a curriculum for schools, capacity building for school supervisors and consulting with the school on curriculum preparation; Phase 2: After the school curriculum has been approved by the Educational Sandbox Steering Committee, capacity building for school supervisors and consulting with the school on teaching and learning. The project accepted applications from schools in educational sandboxes to be pilot schools (Office of the Basic Education Commission, 2021b). While this research project is in progress, the Pilot School Project is in its first phase, with 224 elementary schools voluntarily participating.

Methodology

This research is an explanatory sequential design research (Creswell & Plano Clark, 2011), with quantitative research using online questionnaires to study opinions about the (draft) Basic Education Curriculum Framework, and qualitative research using a multi-case study design to study recommendations for improving the (draft) Basic Education Curriculum Framework, and connoisseurship to examine the appropriateness of the development. The research procedure is as follows:

Phase 1: quantitative research to survey opinions on the (draft) Basic Education Curriculum Framework. According to the Office of the Basic Education Commission's database, it used survey research in 224 pilot schools across six education sandboxes: Rayong, Si Sa Ket, Satun, Chiang Mai, Kanchanaburi, and the three southern border provinces. There are 6,685 teachers and administrators in the region. The minimum sample size, according to Yamane's formula (Yamane, 1973), is 378. Furthermore, 100% of the schools were included in the sample to obtain a complete picture of the practitioners' opinions. At least two people were asked to respond to the online survey in each school: one school administrator and one teacher, for a total of 448 people as the required sample size. As a result, 639 people completed the online questionnaire, accounting for 142.63% of the required sample size.

The data was gathered via an online questionnaire that requested respondents' opinions on five crucial aspects: appropriateness, comprehensiveness, content clarity, application of the (draft) Basic Education Curriculum Framework, and equity concerns. Basically, it mainly included 133 items on a 5-point Likert scale (strongly agree (5) to strongly disagree (1)), with open-ended questions for suggestions for improvement covering 11 primary components and overall structure of the (draft) Basic Education Curriculum Framework. Three curriculum and research experts evaluated the questionnaire content validity. Then it was tested with 31 teachers in two elementary schools in Thailand's central region. The alpha coefficient for Likert scale items was .99, indicating that the questionnaire was trustworthy for data collection.

The data was gathered over a three-month period. Prior to data collection, two online workshops were held to explain the contents of the (draft) Basic Education Curriculum Framework and details of relevant documents to a sample of schools in the target area to help them understand before answering the questionnaire. The online survey link address was then distributed to participants, along with instructions for completing the questionnaire. The schools were given the authority to assign the respondents. Using the SPSS 18.0 for Windows program, the data was analyzed for frequency, percentage, mean and standard deviation, and the F-test.

Phase 2: qualitative research to conduct an in-depth investigation of opinions and recommendations on the major issues raised by the (draft) Basic Education Curriculum Framework. The research design was a multi-case study that purposefully selected schools on a quota basis based on the local context (in town - outside the city), size (small-medium-large), and grade level (primary - secondary) in order to cover diversity of schools and obtain information from various contexts. Three schools in each of the six education sandboxes, for a total of 18 schools, were selected. Each school's key-informants included the principal, head of academic affairs, teachers, and/or school board committees, with an average of 8-12 people per school. Eventually, the study included 188 key-informants.

Data was collected through focus group discussions using questions that addressed five important elements: appropriateness, comprehensiveness, content clarity, application of the (draft) Basic Education Curriculum Framework, particularly for designing school curriculum, and equity issues. Three curriculum and research experts evaluated the questionnaire's content validity. There were 16 schools that participated in the online focus group and 2 schools that participated in the on-site format. The issues for discussion were extracted from the results of the data analysis in Phase 1 to produce qualitative findings that can explain the quantitative findings and findings for developing a framework for competency-based school curriculum development. A document of (draft) Basic Education Curriculum Framework and details of relevant documents was sent to schools for review prior to the group discussion to provide a basic understanding that is sufficient for the focus group. Data were analyzed using a descriptive content analysis approach with Miles and others' steps (Miles et al., 2014). The recordings of the focus groups were transcribed and coded. Following that, the development of themes and subthemes occurred. By examining the links between the themes and their subthemes, as well as the relationships between each theme, it was possible to ensure coherence and, as a consequence, internal consistency.

Phase 3: Developing a framework for the development and implementation of the competency-based school curriculum. Following the findings of quantitative and qualitative research in phase 1 and 2, the research team drafted a framework for the development and implementation of the competency-based school curriculum. Following that, 15 experts in the fields of curriculum, educational administration, assessment, and education practitioners reviewed it using the connoisseurship approach.

A summary of the research process is a framework for research as shown in Figure 1.

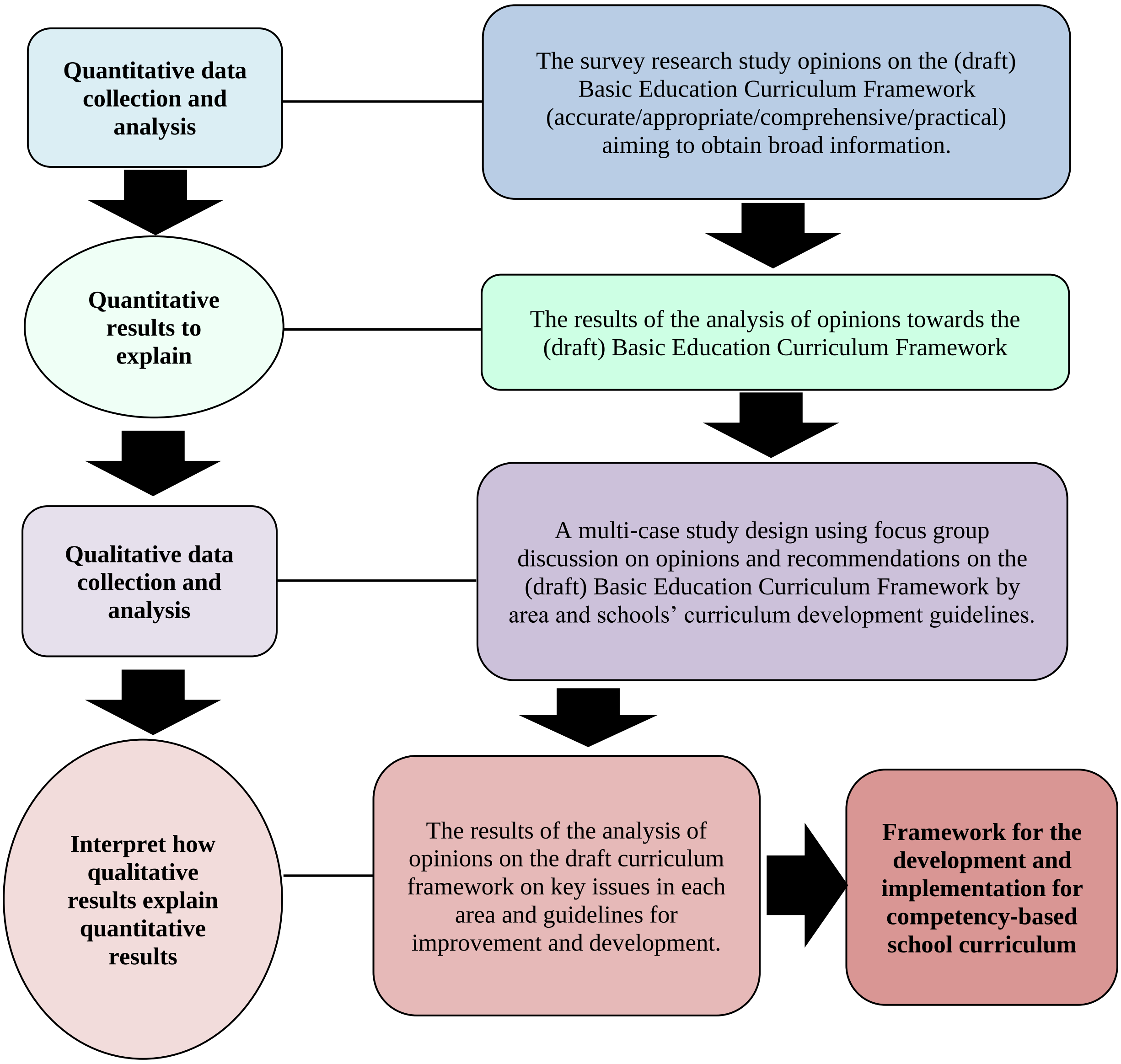

Figure 1 Research Implementation Framework
(Source: Thummaphan et al., 2022)

This research has been approved by the Human Research Ethics Committee, Faculty of Social Science, Royal Police Cadet Academy, with the research project code: SSRPCA-REC 030/2021 on November 19, 2021. Every step of the research process has involved informing participants of their rights and requesting their consent.

Results

1. Opinions and recommendations of school principals, teachers and other stakeholders in pilot schools in education sandboxes towards the (draft) Basic Education Curriculum Framework.

1.1 The results of a quantitative study on opinions on the (draft) Basic Education Curriculum Framework

The respondents were at "agree" level for the overall of (draft) Basic Education Curriculum Framework (Mean = 4.13, S.D.= 0.67). In all components, the scores were higher than 4.00 based on the scores in the range 1–5. The respondents strongly agreed on 4 components, namely prologue, competency, learning area, and time structure, and was agree on the rest of the components. When considering by the education sandbox, it was found that respondents in all sandboxes agreed with the curriculum on all components with scored between 3.94 - 4.32 which were at the level of agree and strongly agree on every component. In each component, respondents from each education sandbox had different opinion levels, but no statistically significant differences were found (statistical values from F=1.36, p=.239 to F=0.26, p=.933). So, the level of agreement was quite similar across respondents from different education sandbox. The opinion level of respondents by education sandbox were shown in Figure 2.

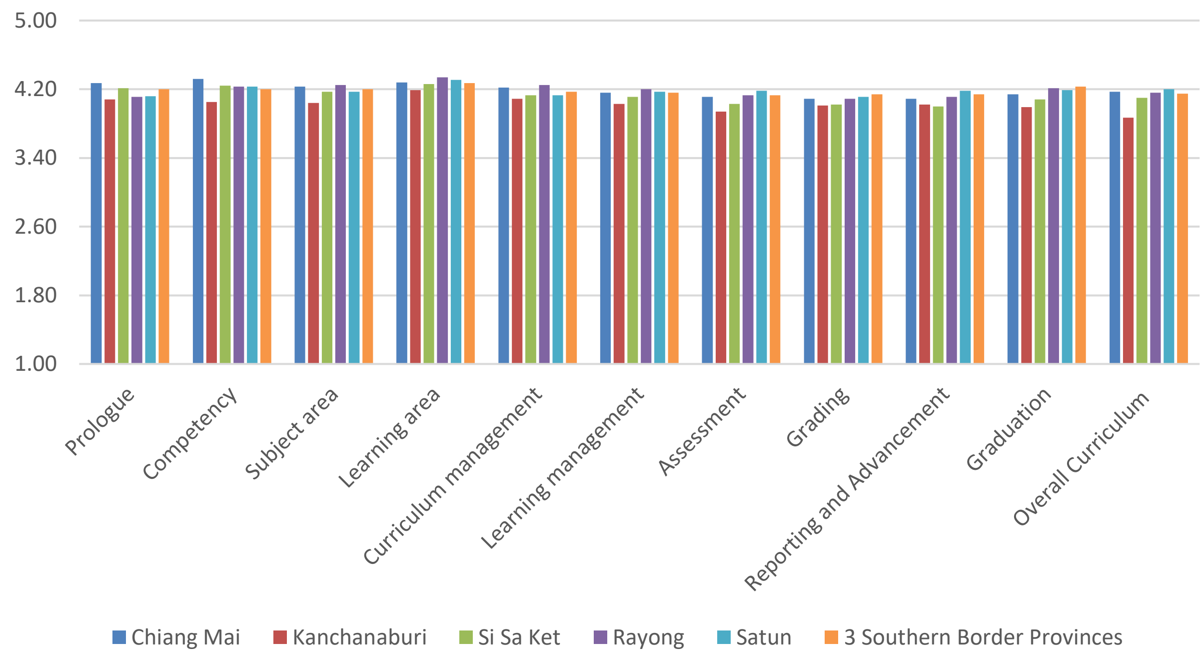

Figure 2 The level of opinion towards the draft Basic Education Curriculum Framework (competency base) classified by education sandbox
(Source: Thummaphan et al., 2022)

1.2 The results of a qualitative study on the opinions on the (draft) Basic Education Curriculum Framework

The multi-case study revealed important findings to explain the results of the quantitative research as follows:

1) Opinions on prologue in the draft curriculum framework; the quantitative study found the opinion level of "strongly agree", which is consistent with the qualitative study that viewed this curriculum framework is fully defined. Curriculum principles, objectives, and desirable characteristics are defined clearly and appropriate to the context of present era and learner development in the 21st century, as well as in harmony with the six core competencies. They suggested to emphasize the desirable characteristics of learners in the subject " eager to learn " and "love being Thai"

*"First of all, we normally have 8 desirable attributes. Now we cut 3 of them: Eager to learn, commitment to work. love being Thai. But children should still have "eager to learn" because out of these 5 things (*desirable characteristics*), there is no such thing as pursuing learning. Enthusiasm for studying is recommended that you have a passion for learning."* (Participant from Kanchanaburi Province)

2) Opinions about the six core competencies; the quantitative analysis yielded a "strongly agree" level, which is consistent with the qualitative study's finding that an overall assessment of competency definitions, components, and component descriptions are quite appropriate, comprehensive, and clear. Most concerns are given to the higher-ordered thinking competency, which according to quantitative research was shown to be "agree" with a lower agreement level than other competencies. Although, the qualitative study discovered that the definitions and descriptions of the components are clear, many teachers are worried that achieving the competent level may be too difficult for learners in grade level 1. They also worry that because the descriptions of the level are broadly defined and have multiple points, it is unclear how to use it in instruction and assessment. The main observation is that teachers still lack understanding of the competency level definitions.

"Six core competencies and 10 levels that have been announced, the school considers it appropriate. Considering a child who will go out from school and go to society or to the outside world, if he has all 6 competencies, he will be able to live." (Participant from Si Sa Ket Province)

3) Opinions on the learning area; the quantitative study was found "strongly agree" with most learning areas, except English language. The qualitative study found that the provision of 7 learning areas is appropriate for the development of core competencies. For the English language learning area, it was found that the name would be revised to "Foreign language" to cover other foreign language courses being taught by schools. The level of competency and learning outcomes are too difficult for first grade level learners to accomplish in some points. For the essence of the learning area, specific competency, and learning outcomes, a quantitative study found "agree", which is consistent with the qualitative study findings. Although they are generally appropriate, some elements should be adjusted to suit the needs of first-grade level students and the teacher's chosen content.

" In the language group just like at our school, there are Malay language classes...that is, the word English is probably changed to foreign language." (Participant from Satun province)

The findings of the qualitative study also revealed a significant suggestion for subject integration, which the teacher believes should be a genuine integration for efficient learning management. Additionally, there can be objections to some particular competences and learning outcomes that students would not be able to achieve owing to restrictions on teachers' capacity and instructional resources in schools.

4) Opinions on time structure; quantitative study found that "strongly agree", which is compatible with the findings of the qualitative study, which revealed that the time schedule for each category of subjects is quite suitable for learning. The majority of participants, however, express concerns about whether the 800 hours allotted for the program will be sufficient to cover all of the required coursework and other school-focused activities. They reasoned that issue may be solved by taking additional hours for this kind of activities from the scheduled time.

"The word no more than 800 hours, the teacher thought it was too little. If it is no less than 800, this is still ok. It can still be arranged for the 1st-3rd grade is 800 or less than that. But teachers will have the feeling that they will not able to teach the children in that timeframe yet." (Participant from Rayong Province)

5) Opinions regarding curriculum management covering curriculum management, learning management, assessment, grading, reporting and advancement, and graduation; the results of the quantitative study on all of these components were found to be "agree", which the qualitative study confirmed that administrators and teachers thought the curriculum management approach and the learning management approach coupled with the assessment are appropriate. A detailed, step-by-step explanation of how to manage curriculum, learning, and assessment is given. But some schools are still unsure about how to put it into practice because some teachers may lack experience in curriculum development and are still rigidly adhering to the traditional assessment techniques.

"In learning management, it is considered appropriate to use in teaching. Let the children do real practice. We guide and support and the children do self-learning, taking into account the differences of students. It can be used which is coordinated with the assessment which at first, we assess with the old and same way, but now we have to assess a new way. This is a new issue for teachers who need to continue to study about assessment. They must periodically assess everything that children do. Teachers must understand this type of assessment." (Participant from Si Sa Ket Province)

2. Framework for development and implementation of competency-based school curriculum

According to the findings of the quantitative and qualitative study, three key domains of the framework of the competency-based curriculum development and implementation for schools were identified as follows: (1) Competency-based curriculum design, (2) Learning management and assessment, and (3) Competency-based curriculum management.

1) Competency-based curriculum design divided into competence determination, and learning areas.

Competency determination takes the consistency of the six core competencies as outlined in the curriculum framework into consideration since they are fundamental competencies that are essential and comprehensive for the development of learners for present and future living. In this regard, taking into account the context or focus of the school, some schools may add more competencies or modify the specifics of each competency defined in the curriculum framework. In order to properly create a school curriculum with strong direction and teamwork, administrators, teachers, and other stakeholders should have a clear common goal for learner growth in each grade level.

Learning areas place an emphasis on addressing the seven topic areas as outlined in the curriculum framework by offering effective instruction in all learning areas at all grade levels to ensure that learners' progress is continuous. The emphasis on the design of the learning areas is considered to be aligned with the focus of the school and the context of the community as well as emphasis on learning areas that are related to modern society and technological advances. The learning should promote life skills for the present and equip students with the fundamental skills for the future. In order to do this, students should be given the opportunity to participate in choosing the theme they wish to study about. Moreover, the design of the learning areas should encourage the participation of teachers, learners and parents and should prioritize learning areas to suit each grade and grade level, and to have continuity between each grade. Furthermore, the number of subjects may be reduced and focus more on integration between learning areas by considering the nature of disciplines and the connection between learning areas to design the integration appropriately as well as draw on the strengths or ways of the community for designing the integration between learning areas.

2) Learning management and assessment divide into learning management, and competency assessment.

Learning management places a strong emphasis on both promoting learners' competency development and minimizing educational inequities. Participation of instructors, students, and parents is the important strategy. In order for students to learn from their experiences and personal matters, emphasis is made on learning approaches that are consistent with learners' daily lives and communal ways of living. Additionally, emphasis is put on practicing what one learns and developing flexible learning opportunities that give everyone access to education regardless of where they are or when they choose to learn. Learning management also takes into account learners’ individual differences and resources are available to enable all learners to achieve competencies according to their potential and aptitude. Additionally, in order for parents to comprehend the personalized learning approach and work with schools to support students in developing competencies, communication with parents about learning that focuses on learner competency development is essential.

Competency assessment focuses heavily on designing the competency assessment criteria to be flexible according to the learners' ages and needs, adjustment of the assessment method to be able to assess along with the learning process with ease to manage according to the time structure, or utilizing performance assessment. In order for each learner to feel confident in themselves without comparing or ranking with their peers, emphasis is also made on each learner's progress and how they have improved in terms of performance or ability. It is crucial to explain to parents the purpose of competency-based assessment, which was discussed above, and that it is not to pit their children against others to see who can graduate from school the quickest and with the greatest grade.

3) Competency-Based Curriculum Management divided into 1) Setting time structure, 2) Preparation and use, and 3) Supervision, monitoring and evaluation of schools' curriculum.

Setting time structure should create an understanding for teachers to define learning time structure that are consistent with learning areas as described in the curriculum framework, promote participation in the learning schedule, focus on reducing the number of subjects and emphasize greater integration of learning areas., and devote a larger percentage of time to the crucial learning areas and use the integration between other lower prioritized learning areas and additional activities. Moreover, the school should analyze and prioritize the activities that are truly consistent with the school focus to develop learners' competency within the specified time frame.

Preparation and implementation are the key steps in efficient and effective deployment of competency-based school curriculum. Preparation of personnel is needed by determining the knowledge set required for practitioners and utilizing appropriate methods of training. Important knowledge sets include knowledge of competency-based curriculum, learning design for competency development, and the integration of concepts within and across learning areas, as well as assessment design and practices. It is necessary to set up the systems and support for curriculum implementation, including planning training, assigning mentors to offer guidance and consultation, providing manuals or case studies for use in learning management and assessment, and creating a professional learning community to promote collaborative learning and continuous improvement.

Supervision, monitoring and evaluation are required for both school and policy-level agencies to ensure that the implementation of the school curriculum is on the right track in terms of fidelity, effectiveness, and efficiency. There should be check list forms to examine the quality of the curriculum preparation and implementation to help schools ensure every step of their process correctly and completely. Moreover, it is necessary to use the information from the assessment to continuously improve and enhance the curriculum.

In order for the curriculum management to be effective, schools should have a clear plan, with systematic procedures in line with the process of creating a competency-based curriculum.

A summary of framework for development and implementation of competency-based school curriculum is shown in Figure 2.

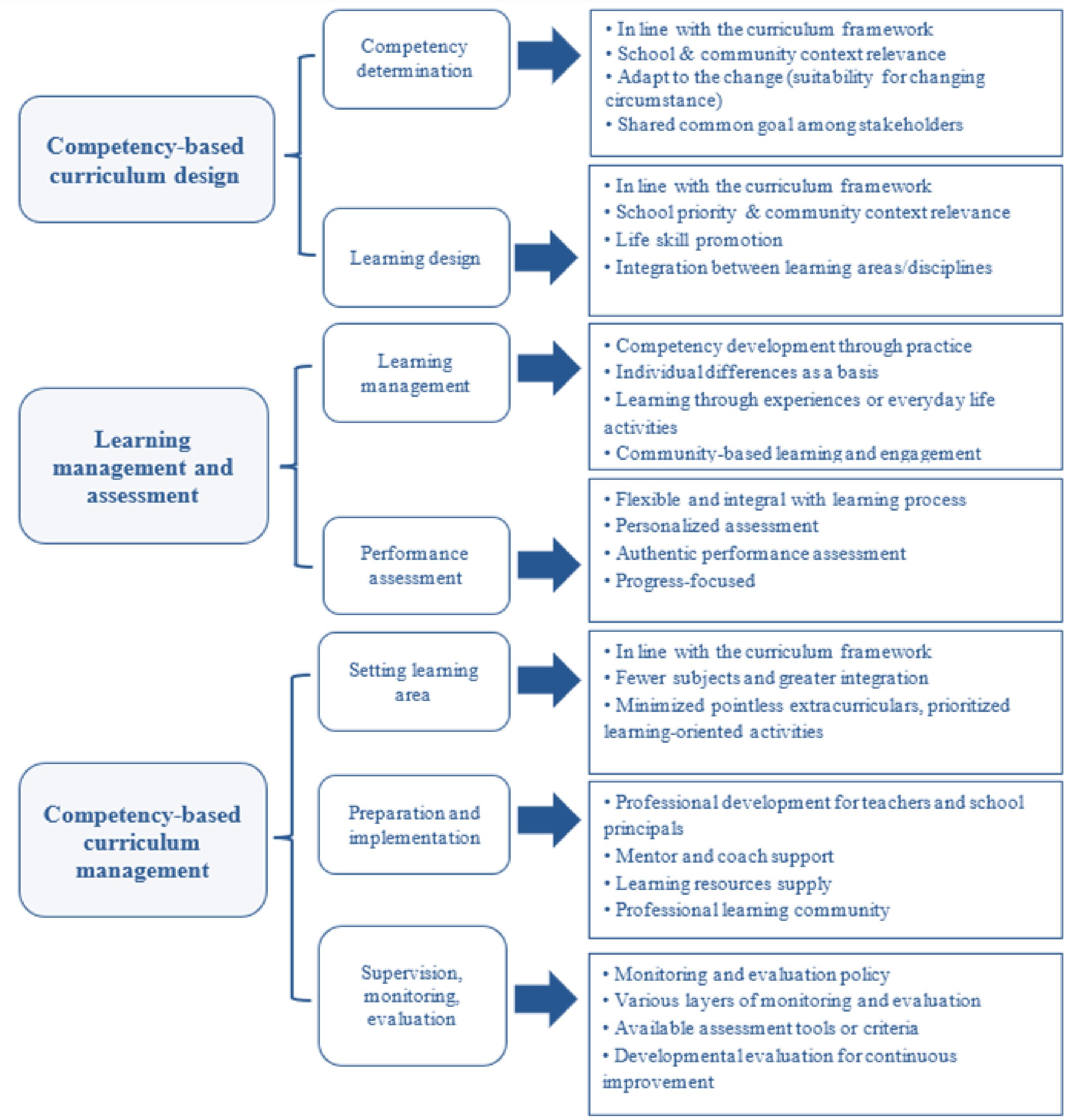

Figure 2 Framework for development and implementation of competency-based school curriculum
(Source: Thummaphan et al., 2022)

According to this framework, the conceptual model that elaborates the important aspects of the competency-based school curriculum design and application has been analyzed and proposed as shown in Figure 3. Basically, the goal of utilizing competency-based curriculum in schools is learners' competency, and in order to achieve that, the implementation process must adhere to the core principle with the crucial supports that foster successful implementation. To be specific, this model includes three components: 1) competency for learning, working, and living as an outcome of the curriculum; 2) Implementation to achieve the goal by emphasis on core principles with uniqueness of leaners, school, and community, integration of concepts, learning areas, and disciplines, and developmental continuum of competency levels with interconnected of the levels; and 3) critical supports from collaboration of stakeholders, professional development of teachers and educators, and continuous improvements.

The conceptual model for advancing the design and application of competency-based

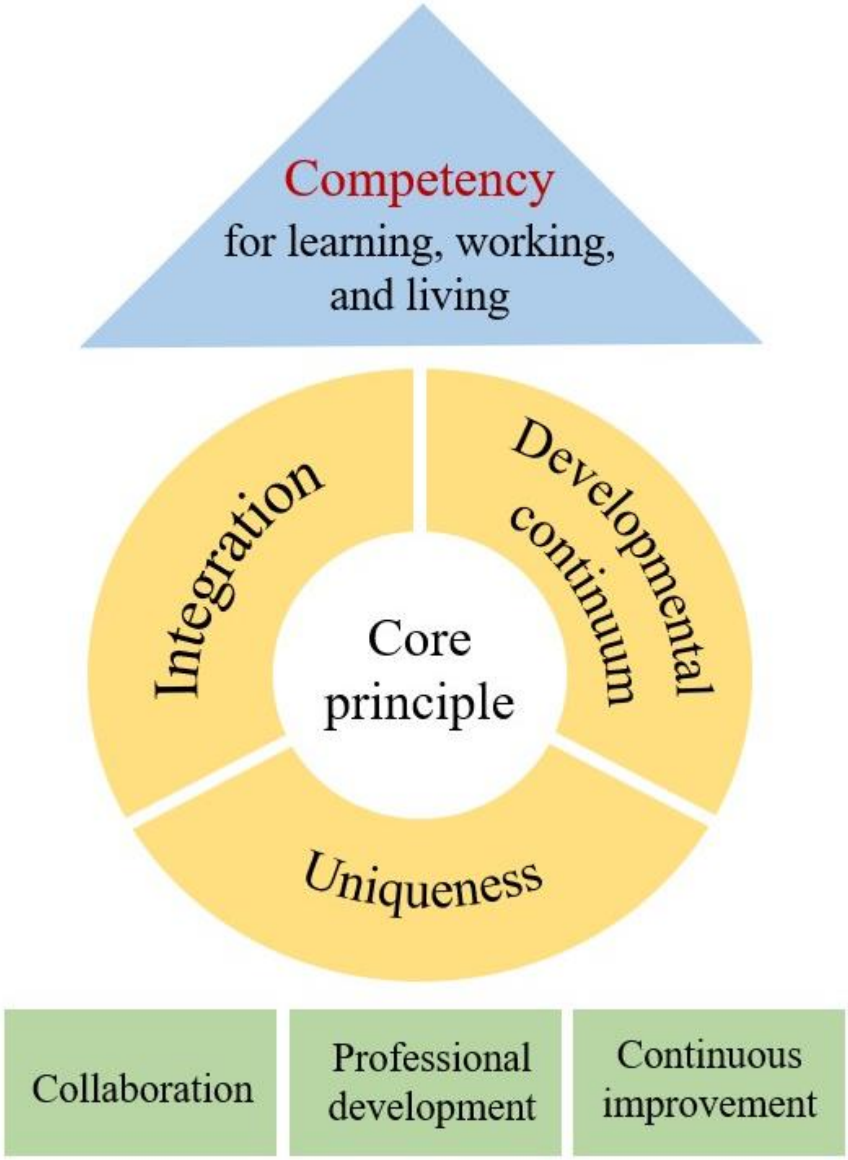

Figure 3 The conceptual model for advancing the design and application of competency –base curriculum in schools
(Source: Thummaphan et al., 2022)

Discussions

1. Opinions of administrators, teachers and stakeholders in pilot schools in the education sandbox towards the (draft) Basic Education Curriculum Framework derived from broad and in-depth data, providing comprehensive and profound findings. From studying the experience of national curriculum development in many countries, the process of hearing opinions on the draft curriculum before it was announced is a common practice (Thummaphan et al., 2021). Obtaining information about stakeholder opinions on a curriculum is a treasure trove of curriculum development because it exposes the shortcomings of the (draft) Basic Education Curriculum Framework, which can be used to improve it completer and more beneficial to education provision. The results showed that the participants agree on the content of the (draft) Basic Education Curriculum Framework, and the results from both the questionnaire survey and the multi-case school discussion group were consistent, indicating that (draft) Basic Education Curriculum Framework is quite appropriate. This is because the (draft) Basic Education Curriculum Framework has been continuously developed and has a fairly wide range of participants involved in the process so that it has been reviewed and improved to a certain extent before the pilot. Moreover, these results show a tendency for practitioners to adopt the (draft) Basic Education Curriculum Framework, which is particularly useful for planning to drive it in the next phase.

Although the participants generally agree on the essence of the (draft) Basic Education Curriculum Framework, there are still a few areas that need further improvement, especially the clarity in the assessment of learners' competency. This is conceivable since teachers do not fully understand the competency-based curriculum concept (Kabombwe & Mulenga (2019), as well as are not yet familiar with how to assess competency in their instructional practices which is consistent with Pamies et al. (2015). As Koloi-Keaikitse (2017) found, teachers felt more skilled in test construction than other assessment practices. They might become unclear when facing competency assessment which involves various aspects. Nevertheless, the areas for improvement are provided by the group of professionals who will be responsible for its implementation, these areas should be taken into account for further development of the (draft) Basic Education Curriculum Framework.

2. The framework for development and implementation of competency-based school curriculum of pilot schools in education sandboxes consists of both competency-based curriculum design; learning management and assessment, and curriculum management, which is considered as covering the important processes of school curriculum development and is consistent with the concept of Bua-Sri (1999). It has been mentioned that the curriculum development process begins from the creation of a prototype curriculum to the evaluation of it. The approach appears to be more domain-based (like Rajurkar et al., 2019) than step-based because it is based on field-based empirical data that addresses issues with curriculum development and implementation. All components of the framework are given a lot of weight since the curricula being developed or about to be prepared by schools are unique or distinct

from those that have already been practiced. Hence, every component is therefore a key component of this framework. Moreover, the conceptual model proposed by this research provides a different perspective for looking at school curriculum development and implementation. Rather than looking at the procedures like other models (Tyler, 1949; Taba, 1962; Bua-Sri, 1999; Sinlarat, 2018), it highlights the crucial aspects as components of school-based curriculum development and implementation for reaching the learners' competency development goal.

The key concepts used for creating a competency-based curriculum of schools provide interesting information. It found that a variety of concepts are used in school curriculum design such as active learning, integrated learning, personalized learning, which is quite consistent with the concept of competency-based education, particularly, the definition of competency-based education which states that students learn actively with different learning styles and at various paces (Levine & Patrick, 2019). Moreover, these concepts are consistent with Reigeluth & Karnopp (2020) who have proposed several competency-based learning models such as learning by doing and personalized learning. They also are in accordance with a policy to solve the problem of disadvantaged children in accessing educational services by providing flexible education in order to be in line with the social conditions' different cultures of children and community contexts (Tumthong, Sirasoonthor & Buosonte, 2014; Mkonongwa, 2018), and the concept of community-based learning that emphasizes giving learners the opportunity to learn what they want from the community as well as learn from practice and from solving problems in the community creatively (Chutsuriyawong & Nillapun, 2016; Owen & Wang, 1996). The concepts that the schools use to design school curriculums reflect their perception of the principles of competency-based education, and demonstrate the initial connection between concepts and practice, which requires a long-term follow-up study in order to see more of the operating conditions in the real situation. These viewpoints, however, are primarily from the standpoint of educational service providers rather than from that of users, i.e., students and communities. This would be especially helpful if further research was conducted on the perspectives of the service recipients in education and see whether there was a consistency between the service providers' and clients' perspectives.

An important limitation in this research is the time frame for bringing the (draft) Basic Education Curriculum Framework into the development of competency-based school curriculum. Despite the fact that the pilot schools willingly participate in the project and keep up with developments regarding the (draft) Basic Education Curriculum Framework, the time it takes for schools to establish and execute their school curricula is short. The knowledge gathered from pilot schools' perspectives on those topics will be richer if they have more time practicing curriculum. After the design, implementation, and assessment phases of employing school curriculum are over, more study is still needed because this will give a more complete picture.

Conclusion and suggestions

The study of the framework for competency-based school curriculum development and implementation of the pilot schools in the education sandbox led to the understanding of the transformation of national curriculum into the school practices in the context of competency-based education as an important educational innovation of Thailand. The framework for the development of competency-based curriculum for schools covers three main issues: competence-based curriculum design; learning management and assessment and learning evaluation and curriculum management. Moreover, the conceptual model provides theoretical concepts for driving school curriculum to promote learners' competency including outcome, core principle, and support. These are important components that schools can use in the implementation of competency-based curriculum development.

There are some critical recommendations for policy and practice. The Office of the Basic Education Commission should formulate a policy to promote participation in the area and support resources, especially mentors in the preparation of school curriculum. Also, the Office of the Basic Education Commission, the Education Sandbox steering committees, schools and related agencies should adopt the framework and model as guidelines for the preparation and implementation of competency-based school curriculum.

Due to the limited period of time for conducting research and the implementation of curriculum development of the pilot school is still in the early stage, there should be an in-depth study of the practice of developing and implementing competency-based school curriculum of pilot schools in education sandboxes. This will result in more detailed and comprehensive information. Additionally, by conducting participatory research involving collaboration between researchers, schools, and stakeholders in curriculum development, implementation, and evaluation, it should be determined the effectiveness of the utilization of the framework and model.

New knowledge and the effects on society and communities

This framework is based on empirical evidence rather than theoretical composition. Therefore, the components are critical aspects that practitioners in the field concern and practice. The conceptual model is a theoretical principle that helps build knowledge in the design and use of competency-based curriculum at the school level. These framework and model are the theoretical concepts that contribute to the school curriculum development body of knowledge in the context of competency-based curriculum, particularly how school can translate policy to practice---from national competency-based curriculum framework to school curriculum operation. Since they are primarily derived from data obtained from local practitioners in diverse school contexts, it is possible that they can be used in various schools, which can promote the development and implementation of the school curriculum more successfully.

Acknowledgement

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People's Participation in Community Development: Ban Khon Khwang Community, Mueang District, Prachinburi Province, Thailand

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Abstract

People's participation is necessary in development in organization, community, and national level. In Thailand, there is Local administration, which is decentralized from the government, is one of the sectors that people can participate directly. It has autonomy to serve the needs of people in the local society. Therefore, people's participation is important to make their rights and evaluate the local administration. The objective of this study is to the impact of between perceptions of information on community development and factors that supporting participation that effect people's participation in the community.This study was conducted in Prachinburi is one of the prosperous provinces in Thailand by using quantitative method and there were 112 respondents. The results showed that perception of information on community development including information about policy, planning, and operations, and factors supporting participation including training attendance, activity attendance, and group membership had effect on people's participation for 72.70 percent. The recommendation was that the government sector or related organizations could enhance the level of people's participation by increasing the channels that provide information to the community and encourage people attending the training, activities and group membership.

Keywords: Community development, Good governance, Participation, Participatory governance

Introduction

Nowadays people's participation is necessary in development in organization, community, and national level. The concept of people's participation has played important role since The fifth National Economic and Social Development Plan which emphasized on people rather than economic growth. This approach has changed from top-down to bottom-up in order to serve the plan. The bottom-up approach also in accordance to Oakley (1984) that stated that it was closely relate to people's participation concept.

In Thailand, there is Local administration, which is decentralized from the government, is one of the sectors that people can participate directly. It has autonomy to serve the needs of people in the local society. Therefore, people's participation is important to make their rights and evaluate the local administration. However, involvement of people in the community is inadequate in term of recognition and analysis of problems and solutions. Communications between community administrators, leaders, developers, and the Subdistrict Administrative Organization are deficient in order to make decisions.

There are tourist attractions such as adventure and historical tourism. Khon Kwang is one of the villages that are supported by the Provincial Community Development Office of Prachinburi. The Office is operated under the The 12th National Economic and Social Development Plan that focuses on the community development in order to achieve honest livelihood under the Sufficiency Economy Philosophy. The objectives of the Office is to develop system and mechanism of participation and learning in community, develop mechanism and activities in accordance to the Sufficiency Economy Philosophy, solve poverty problems in the community, reinforce the gross happiness, develop leadership in organization and networks, and integrate the community development plan into action. In order to achieve the community development plan according to the Office's objectives, people's participation plays important role to drive plan into action. However, the obstacles in accordance to the community development plan is that people in the community is lack of interest or participation (Yuenyong, 2018). Moreover, there was lack of publicity about the ability of people to participate in community development programs. Therefore, the objectives of the study were to explore factors that have impact on people's participation in Prachinburi Province. The results would be the guideline for the government and related sectors in order to improve and develop people's participation in community.

Literature Review

People's participation

People's participation has been used for approximately 30 years. According to the United Nations Department of International Economic and Social Affairs (1981), people's participation is structuring and distributing authority for people in the community in order to enable them to express their needs and participate in community development. People in the community also gain benefits from the development. Chittangwattana (2005) stated that people's participation is associations of individuals or group of people that responsible in developing activities that benefits the community. Those individuals become a part of developing local wisdom, able to analyze and make decisions in their own lives. King Prajadhipok's Institute (2005) as cited in Boonratmaitree et al. (2020) stated that people's participation is activity involvement of people that truly benefits the community as a whole.

In practice, people can participate in operation in activities, operation, resources. Some approaches concern people's participation as presence in activities that are from top-down policy, while others used public hearing that are bottom-up approach. However, the practices such as provide resources to external organizations' project or attend the public hearing and involve only in acknowledging the projects are not considered as people's participation. People's participation concept is originated in order to have stakeholders in the community address their needs and attend activities that affect the way of live. Those needs are considered as a part of policy and decision making of the government. The procedure can start from providing information to stakeholders, public hearing, planning in cooperation, and develop potential of people in the community.

The principle of people's participation

Hutanuwat and Hutanuwat (2003) stated that the principle of people's participation includes 3 principles as shown below:

1) The principle of consciousness and responsibility. The principle of consciousness and responsibility is an important principle that organizations in public sectors, private sectors, and civil society. This principle includes providing opportunity to audit those sectors. This will reflect responsibility to the public and stakeholders. This principle is necessary to act in accordance with the rule of law and transparency.

2) Worthiness. Worthiness is to consider the best interests of the public by utilizing limited resources for maximum benefit and sustainability. Moreover, environment protection should be considered as well as the competitive advantages.

3) Goals and methods of participatory planning. People's participation can be considered as goals and methods. This procedure requires involvement to create sense of owner, resulting in mutual responsibility and group benefits as the strength of the group is one of the goals (Hutanuwat & Hutanuwat, 2003).

Level of people's participation

In order to measure the level of people's participation, Arnstein (1969) put the importance on the power of decision making and presented Ladder of Citizen Participation. This concept has been accepted and used since 1969. There were 8-step participation ladder namely: manipulation; therapy; informing; consultation; placation; partnership; delegated power; and citizen control.

It can be indicated that minimum level or step 1 – step 2 is false participation or nonparticipation. Most people do not have the power to make decisions. Only a minority of people play a major role in the decision making.

Intermediate lever or step 3 – step 5 is partial participation or tokenism. People have opportunity to express their opinions but there is no guarantee that those opinions will be responded from the decision-makers.

Advanced level or step 6 – step 8 is citizen power. People have more power in decision making and are able to enhance the level of negotiations by having representatives, controlled by the people through representatives, or acting as a decision-maker.

Dimensions of people's participation

Cohen & Uphoff (1980) stated people's participation requires four dimension as follow:

1) Decision making is the process that people can express opinions about structure or the structure of the project. Decision making can be categorized into three parts: initial decision; ongoing decision; and operational decision.

2) Implementation is the operation in accordance to the project and plan. This dimension enables people to be part of the owner of the activities and outcomes. Implementation can be categorized into three parts: resource contribution; administration and co-ordination supports; and program enlistment activities.

3) Benefits, Keaw-udom (2009) stated that benefits of people's participation including: (1) the quality of decision making, the process of public consultation allows the clarification of the objectives and needs of a project or policy; (2) reducing cost and time; (3) commitment, people's participation can build firm and sustainable commitment. Political conflicts can be reduced as well as the government has legitimacy to make decisions; (4) the ease to implementation. People's participation creates sense of belonging in the community; and (5) avoidance of confrontation in "the worst case". Conflicts lead to hostility and can be uneasy to solve. Involvement from the beginning can reduce confrontation in the worst case scenario.

4) Evaluation is an assessment and analysis of the results of the operations by people in the community. Evaluation includes analyzing advantages and disadvantages in alternatives in order to find solutions for better operations. Wattanasen (2016) stated that a role of people in auditing the management of public affairs of the organization and local government is in line with the new government administration of the Strategic Plan for the Development of the Thai Government System (B.E. 2556-2561).

These dimensions are continued as cycle in community development activities that requires continuous effort. Though, there was no full cycle or completed cycle in practice as there were obstacles. However, these dimensions can be tangible toolset that attract and present as the principle of people's participations in community development.

Characteristics and Factors Supporting People's Participation

In order to have people participate in community development programs, factors supporting people's participation should be considered in order to improve the effectiveness and enhance the involvement in decision making, implementation, benefits, and evaluation as mentioned above.

Phiratham (2012) stated that people's participation helps people understand, initiate, and plan for operations that help developing the community. Therefore, there should be an initiation that enable people develop the community together, develop themselves to feel that they are valuable and honored, and fully open for participation. They also stated that the uses of practice in people's participation include participation in planning, initiate programs, utilizing resources, express opinions or recommendations, acknowledgement of policy, participate as a group member, participate in activities, and participate in training sessions.

From the study above, these factors that affect people's participation were align with Cohen and Uphoff (1980)'s concept of people's participation.

Perception of information on community development operations

Bernstein (1999) stated that perception is the process after the stimulator is interpreted by using knowledge, experiences, and understanding of each person. Learning to perceive is important since it is only sensing without knowledge and experiences. Perception behavior is the process that after sensing, which is to respond to the environment. It is the process of translating the meaning of stimuli that come from sensing process. Once the receiver or organs has stimulated, the process will be sensing and the sensing are translated or interpreted as a perception.

From literature review, 2 hypothesise and conceptual framework was shown below:

Hypothesis 1: Level of perception of information on community development including policy, planning, and operation had effect on people's participation in Ban Khon Khwang Community, Mueang District, Prachinburi Province

Hypothesis 2: Level of factors that supporting participation including training attendance, activity attendance, and group membership had effect on people's participation in Ban Khon Khwang Community, Mueang District, Prachinburi Province

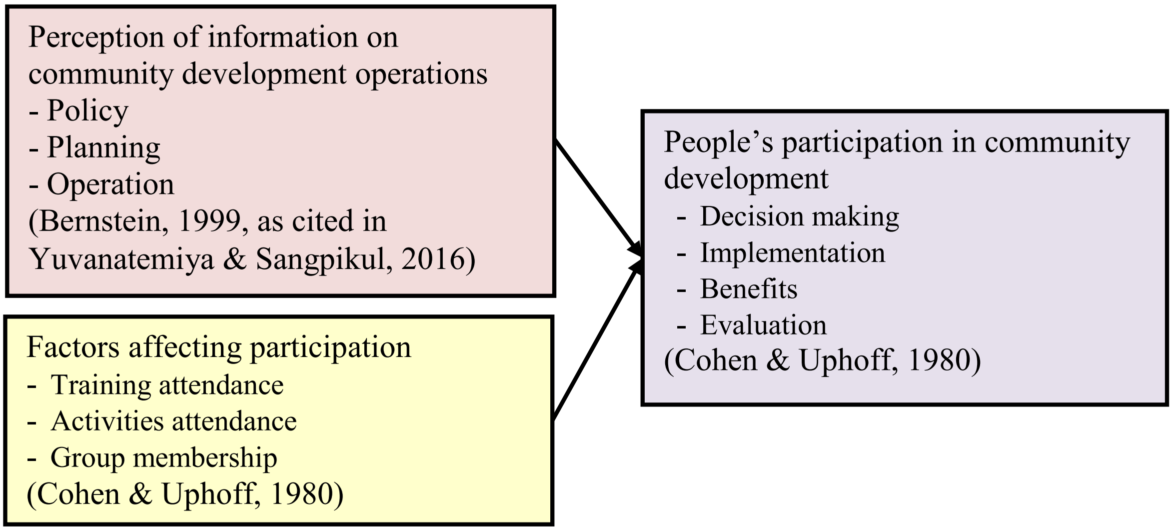

Figure 1 Conceptual framework
(Source: Joomsoda & Tirasuwanvasee, 2022)

Methodology

Research design

This study used quantitative methodology. Samples were selected by using stratified random sampling including 112 family leaders or representatives. The instrument used was questionnaire that comprised four parts. The first part included gender, age, educational level, occupation, incomes, and period of residence in the community. The second part was the environment of respondents including the environment of the community and group attendance. This part was open-ended questions. The third part was the perception to people's participation in developing the community in four dimensions: decision making; implementation; benefit; and evaluation. The scale of each questions were five levels: 1 means very rarely participated; 2 means rarely; 3 means moderately participated; 4 means frequently; and 5 means very frequently participated. Descriptive statistics including mean and standard deviation (S.D.) were analyzed. The criteria of perception level were: 4.50 – 5.00 means the perception has the highest level; 3.50 – 4.49 means high level; 2.50 – 3.49 means moderate level; 1.50 – 2.49 means low level; and to 1.00 – 1.49 means the least level. Cronbach's alpha of the questionnaire was 0.90. After the questionnaires were distributed to the sample of the study, data was analyzed by using descriptive statistics and correlation between perception of information on community development and people's participation, and factors effecting participation and people's participation.

Results

Results of this study were categorized into 5 parts which were demographic, level of perception of information, factors supporting people's participation, level of participation, and hypothesis testing.

Part One: Demographics of respondents according to the first part of the questionnaire

Respondents' demography was shown in Table 1.

Table 1 Demographics of respondents

Demographic	Amount	Percentage
1. Gender		
Male	48	42.86
Female	64	57.14
2. Age (year)		
Under 20	8	7.14
20 – 40	57	50.89
41 – 60	45	40.18
61 or above	2	1.79
3. Educational level		
Undergraduate	84	75.00
Bachelor's Degree	25	22.32
Post-graduate	3	2.68
4. Occupation		
Business owner	7	6.25
Agriculture	68	60.71
Government service/state enterprise	27	24.11
Work for hire	10	8.93
5. Income (Baht/Month)		
Under 15,000	55	49.11
15,000 – 20,000	32	28.57
20,001 – 25,000	20	17.86
25,001 or above	5	4.46
6. period of resident in the community		
5 year	3	2.68
5-10 year	46	41.07
10 or above	63	56.25
7. Status in the community		
Community leader/member of Sub district Administrative Organization/ group member/ villager	12	10.71
Villager	100	89.29
Total	112	100.00

Part two: The level of perception of information on community development operations

Perception of information on community development operations of respondents were categorized into perception of policy, planning, and operation. Mean and standard deviation of each category was shown in Table 2.

Table 2 Mean and standard deviation of perception of information on community development operations

Perception of Information	Mean	S.D.	Level of perception
Policy	4.66	0.50	Highest
1. There was a policy on assistance and/or public system that is beneficial to the community.	4.66	0.53	Highest
2. There was a policy on assistance and/or a policy that continuously support volunteer activities with the community, such as environment and local traditions conservation.	4.65	0.55	Highest
3. There was a policy on cooperation with the government sector in career, education, sports and sanitation improvement in order to enhance the quality of life.	4.68	0.63	Highest
Planning	4.59	0.54	Highest
1. There was a management approach in community development to become a desired community.	4.60	0.53	Highest
2. There was a risk management plan in case of problems and impact on manpower or environment.	4.58	0.55	Highest
3. There was a plan that indicates direction and approach in community development.	4.60	0.63	Highest
Operation	4.60	0.55	Highest
1. Leaders of the community put emphasized on social and environment in operations.	4.59	0.67	Highest
2. Leaders of the community focused on participation with people in the community in the operations.	4.54	0.63	Highest
3. Leaders of the community had good values towards the society and are responsible for all stakeholders.	4.61	0.66	Highest
4. Leaders of the community built trust and confidence in by taking into account the prevention of potential impacts.	4.66	0.62	Highest
5. Leaders of the community had intention in enhance well-being of people and environment in the community	4.64	0.60	Highest
6. Leaders of the community focused on strengthen the community and communicate their intention for community development	4.62	0.63	Highest
Average	**4.62**	**0.54**	**Highest**

Table 2 showed that people in Khon Kwang Village had highest level of perception equal to 4.62. Every elements had highest level, the most score was perception of information about policy ($\bar{x}$ = 4.66), perception of information about operation ($\bar{x}$ = 4.60), and perception of information about planning ($\bar{x}$ = 4.59), respectively. Moreover, standard deviation of all elements were in between 0.50 – 0.55, meaning that level of dispersion was low.

Respondents had highest level of perception equal to 4.66. Considered each element, every element had highest level. The most score was perception of policy on cooperation with the government sector in career, education, sports and sanitation improvement in order to enhance the quality of life. ($\bar{x}$ = 4.68), perception of policy on assistance and/or public system that is beneficial to the community ($\bar{x}$ = 4.66), and perception of policy on assistance and/or a policy that continuously support volunteer activities with the community, such as environment and local traditions conservation ($\bar{x}$ = 4.65), respectively. Moreover, standard deviation of all elements were in between 0.50 – 0.63, meaning that level of dispersion was low.

Respondent had highest level of perception equal to 4.59. Considered each element, every element had highest level. The elements the had the most score were a perception of information about a management approach in community development to become a desired community and a plan that indicate direction and approach in community development ($\bar{x}$ = 4.60), and perception of information about a plan that indicate direction and approach in community development ($\bar{x}$ = 4.59). Moreover, standard deviation of all elements were in between 0.53 – 0.63, meaning that level of dispersion was low.

Respondents had highest level of perception of information about operations equal to 4.60. Considered each element, every element had highest level. The elements the had the most score were a perception of information that leaders of the community built trust and confidence in by taking into account the prevention of potential impacts ($\bar{x}$ = 4.66). The latter were perception of information about leaders of the community that had intention in enhance well-being of people and environment in the community, leaders of the community focused on strengthen the community and communicate their intention for community development, leaders of the community had good values towards the society and are responsible for all stakeholders, leaders of the community put emphasized on social and environment in operations, and leaders of the community focused on participation with people in the community in the operations ($\bar{x}$ = 4.64, 4.62, 4.61, 4.59, and 4.54), respectively. Moreover, standard deviation of all elements were in between 0.60 – 0.67, meaning that level of dispersion was low.

Part three: Factors Supporting Participation

Part 3 presented the factors supporting people's participation divided into 3 elements: training attendance; activity attendance; and group membership. Descriptive statistics was as shown in Table 3.

Table 3 Mean and standard deviation of factors supporting participation

Factors Supporting Participation	Mean	S.D.	Level of perception
Training attendance	2.81	1.25	Moderate
1. You have practiced the activities and guidelines for the operation in order for achieve the community development goals.	2.82	1.27	Moderate
2. You often take training on community development operations	2.81	1.26	Moderate
Activity attendance	3.14	1.31	Moderate
1. You are involved in motivating neighbors to participate in community development activities/projects	3.05	1.26	Moderate
2. You participate in all community development activities	3.24	1.42	Moderate
Group membership	2.87	1.31	Moderate
1. You voluntarily become a member of the group to participate in community development activities.	2.88	1.35	Moderate
2. You have a discussion group to exchange constructive ideas on community development operations.	2.86	1.32	Moderate
Average	**2.94**	**1.22**	**Moderate**

Table 3 showed that factors supporting participation had moderate level equal to 2.94. Every elements had highest level, the most score was activity attendance ($\bar{x}$ = 3.14), group membership ($\bar{x}$ = 2.87), and training ($\bar{x}$ = 2.81), respectively. Moreover, standard deviations of all elements were in between 1.25 – 1.31, meaning that level of dispersion was high.

Training attendance factors had moderate level equal to 2.81. Considered each element, every element had moderate level. The element the had the most score were practicing the activities and guidelines for the operation in order for achieve the community development goals ($\bar{x}$ = 2.82), and attend training on community development operations ($\bar{x}$ = 2.81). Moreover, standard deviations of all elements were in between 1.26 – 1.27, meaning that level of dispersion was high.

Activity attendance factor had moderate level equal to 2.81. Considered each element, every element had moderate level. The element the had the most score were participating in all community development activities ($\bar{x}$ = 3.24), and involvong in motivating neighbors to participate in community development activities/projects ($\bar{x}$ = 3.05). Moreover, standard deviations of all elements were in between 1.26 – 1.42, meaning that level of dispersion was high.

Group membership factors had moderate level equal to 2.87. Considered each element, every element had moderate level. The element the had the most score were voluntarily become a member of the group to participate in community development activities ($\bar{x}$ = 3.24), and have a discussion group to exchange constructive ideas on community development operations. ($\bar{x}$ = 2.86). Moreover, standard deviations of all elements were in between 1.32 – 1.35, meaning that level of dispersion was high.

Part four: Level of People's Participation in Community Development

This part presented the level of people's participation which was separated into three parts: decision making; implementation; benefits; and evaluation. Descriptive statistics was as shown in Table 4.

Table 4 Mean and standard deviation of people's participation in community development

People's participation element	Mean	S.D.	Level of perception
Decision making	2.97	1.13	Moderate
1. You participate in discussions and considerations on various projects that may cause problems in the community.	3.00	1.17	Moderate
2. You participate in discussion with reasonable opinions, objections or arguments when the community committee decides on a project that does not match the community development.	2.97	1.17	Moderate
3. You participate in deciding on the procedures, planning, meeting, or selecting community development project activities.	2.96	1.16	Moderate
Implementation	3.76	1.44	Frequently
1. You involved in the implementation or participate in the community development project.	3.76	1.46	Frequently
2. You participated in the selection of community committees for community development operations.	3.79	1.45	Frequently
3. You participated in the activities when there are community development project.	3.75	1.45	Frequently
Benefits	4.50	0.62	Most frequently
1. You perceived that the community had benefited from various community development activities or projects that the community had done together.	4.53	0.67	Very frequently
2. You perceived that community development can solve problems in the community sustainably.	4.47	0.66	Frequently
Evaluation	2.99	1.10	Moderate
Average	**3.55**	**0.84**	**Frequently**

Table 4 showed that people in Khon Kwang Village had frequently level of participation with the mean of 3.55. Considered each element, participation in benefits had the highest score of 4.50. The latter were participation in implementation that had the score of 3.36, participation in evaluation that had the score of 2.99, and participation in decision making that had the score of 2.97. The overall standard deviation was 0.84, meaning that the samples of this study had various level of participation. Considered each element, the standard deviation was between 0.62 – 1.44, meaning that the level of dispersion was high.

People's participation in decision making had moderate level equal to 2.97. Considered each element, every element had moderate level. The element the had the most score was participate in discussions and considerations on various ($\bar{x}$ = 3.00). The latter were and participate in discussion when the community committee decides on a project that does not match the community development ($\bar{x}$ = 2.97) and participate in deciding on the procedures, planning, meeting, or selecting community development project activities ($\bar{x}$ = 2.96), respectively. Moreover, standard deviations of all elements were in between 1.16 – 1.17, meaning that level of dispersion was high.

People's participation in implementation had frequently level equal to 3.76. Considered each element, every element had frequently level. The element that had the most score was participate in the selection of community ($\bar{x}$ = 3.79). The latter were and participate in discussion when the community committee decides on a project that does not match the community development ($\bar{x}$ = 3.76) and participate in the activities when there are community development project ($\bar{x}$ = 3.75), respectively. Moreover, standard deviations of all elements were in between 1.45 – 1.46, meaning that level of dispersion was high.

People's participation in benefits had very frequently level equal to 4.50. Considered each element, every element had frequently level. The element the had the most score was *perceive that the community had benefited from various community development activities or projects that the community had done together* ($\bar{x}$ = 4.53) and *perceive that community development can solve problems in the community sustainably* ($\bar{x}$ = 4.47), respectively. Moreover, standard deviations of all elements were in between 0.66 – 0.67 , meaning that level of dispersion was high.

People's participation in evaluation had moderate level equal to 2.99. Considered each element, every element had moderate level. The element that had the most score was participate in providing suggestions and useful comments to improve the community development project ($\bar{x}$ = 3.02). The latter was involve in monitoring work, problem, and obstacles in operations and involve in the auditing various plans/projects in community development ($\bar{x}$ = 2.98), respectively. Moreover, standard deviations of all elements were in between 1.11 – 1.16, meaning that level of dispersion was high.

Part five: Hypothesis Testing

The researcher analyzed the effect of perception of information and factors supporting people's participation on people's participation by using multiple regression analysis with stepwise technique and using Pearson's correlation with the confident level equal to 0.05.

Hypothesis 1: Level of perception of information on community development including policy, planning, and operation had effect on people's participation in Ban Khon Khwang Community, Mueang District, Prachinburi Province

Table 5 Correlations of Perception of Information and People's Participation in Community Development Correlations

	Policy	Planning	Operation	People's participation
Policy	1.000	.411**	.533**	.295**
Planning		1.000	.611**	.263**
Operation			1.000	.294**
People's participation				1.000

*Correlation is significant at the 0.01 level
** Correlation is significant at the 0.05 level

Table 5 showed the correlation between perception of information about policy, planning, operation, and people's participation. It can be seen that overall perception of information had positive relationship with people's participation at .01 significant level (r = .347). There was a positive relationship between perception of information about policy and people's perception at .01 significant level (r = .295). The R value was .347, which was not close to 1, meaning that there was only 34.7% correlation between dependent and independent variables in the same direction. R square value showed 12.00% meaning that perception of information had 12.00% effect on people's participation, while 88.00% was the effect from other variables that were not included in the questionnaire. In other words, 12.00% change in people's participation can be explained by change in perception of information. Based on ANOVA table, the value of F was 11.227 meaning that at least one independent variable had effect on dependent variable. Therefore, at least one of the perceptions of the information variable (policy, planning, and operation) had effect on people's participation. Sig. value is 0.000 that is lesser from Alpha value (0.05), therefore the hypothesis that stated that perception of information on community development had effect on people's participation was accepted.

Hypothesis 2: Factors supporting participation including training attendance, activity attendance, and group membership had effect on people's participation in Ban Khon Khwang Community, Mueang District, Prachinburi Province

Table 6 Correlations of Factors Supporting Participation and People's Participation in Community Development Correlations

	Policy	Planning	Operation	People's participation
Training attendance	1.000	.815**	.866**	.773**
Activity attendance		1.000	.844**	.841**
Group membership			1.000	.765**
People's participation				1.000

Note: *Correlation is significant at the 0.01 level
** Correlation is significant at the 0.05 level

Table 6 showed the correlation between factors supporting participation and people's participation. It can be seen that the overall factors had positive relationship with people's participation at .01 significant level (r = .855). Moreover, training attendance factor and activity attendance had positive relationship with people's participation at .01 significant level (r = .733 and .841, respectively). The R value showed the relationship between factors supporting participation, which were training attendance, activity attendance, and people's participation. The R value was .855, which was close to 1, meaning that independent variable had high effect on dependent variable in the same direction. R square value showed that factors supporting participation had 73.1% effect on people's participation, while 26.9% was the effect from other variables that were not included in the questionnaire. In other words, 73.1% change in people's participation can be explained by change in factors supporting participation. Based on ANOVA table, the value of F was 222.530 meaning that at least one independent variable had effect on dependent variable. Therefore, at least one of the factors supporting participation (training attendance, activity attendance , and group membership) had effect on people's participation.

Sig. value is 0.000 that is lesser from Alpha value (0.05), therefore the hypothesis that stated that factors supporting participation had effect on people's participation was accepted.

Discussions

The objectives of the study were to explore factors that have impact on people's participation in Prachinburi Province. From the result, perception of information on community development had effect on people's participation in the same direction. If the level of perception of information increases, level of people's participation in the community also increases. This finding aligned with the study of Yuvanatemiya and Sangpikul (2016). The perception of information included information about policy, planning, and operation. Factors supporting participation had effect on people's participation in the same direction. The factors included training attendance, activity attendance, and group membership. This finding aligned with the study of Cohen and Uphoff (1980).

Conclusion and suggestions

The government and related sectors could use the result of the study to improve and develop people's participation in community and also expand the research in different community. The Provincial Community Development Office can provide variety of information channel in order to reach people in the community. Moreover, it can encourage people in the community to participate in training programs, activities, or group participation to develop people's participation in the community. The future research can be done by using qualitative method in order to explore more about people's participation in the community. Level of people's participation in each demographic can be analysed furthermore.

New knowledge and the effects on society and communities

The research result can help people in community recognize the importance of participation in community development. Moreover, the readiness of the people in development their abilities will help them live in the community sustainably.

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The Development of Wicker Products from Gros Michel Banana Fibers with Natural Dyes for Promote Career Among the Elderly

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Abstract

The objectives of this research and development were to develop wicker products from Gros Michel banana fibers with natural dyes and to test the acceptance of the target consumer groups toward the products. The sample groups consisted of three types of the product prototype, 15 community representatives for selecting the draft products, three experts for product assessment, and 400 target consumers for product testing. The research instruments comprised a product prototype assessment and a questionnaire. Descriptive statistics was used to analyze the data for mean and standard deviation. The research results revealed that the fibers can be used to produce the product prototypes and small-sized fibers yield bright and durable colors after dyeing. For the development of the prototypes, about 15 to 20 fibers are twisted and braided to produce a suitable band. The designs of the three prototypes are based on the traditional ones. When the prototypes were evaluated by the experts, the total mean was 4.30, which was at a high level. The acceptance testing results of the target consumers were at the highest level. This is because the products were based on the local wisdom and environmentally friendly as a green product. Therefore, they should be promoted to create more jobs among the elderly as well as interested community members in order to establish community and socio-economic empowerment.

Keywords: Naturally-dyed banana fibers, Product development, Career promotion among the elderly, Value addition, Wicker work

Introduction

Banana is a fast-growing annual crop which can grow in all regions of Thailand and its stalk can be turned into natural fibers (Soiraya, 2016). All parts of banana are useful, such as, leaf, fibrous layer, raw and ripe fruit, flower, root, and underground trunk. The leaf has long been used for wrapping. Leaf over the fire is used to lessen muscle pains and young leaf is used to wrap up a wound. Its fibrous layer is well-known for making tough strings, especially the layers form Manila bananas grown in the Philippines. Banana fibers are used for cloth weaving, paper, and various kinds of handicraft (Tangkrock-olan, 2019). Studies have revealed that banana trees are variously useful. For instance, processed fibrous layers yield fibers for textile industry, banana trees are used in rituals in Thailand, and they are also used as a supplementary material for various structures. From a fieldwork survey at Cho Lae Village, it was found that most villagers are involved in agriculture and they grow Gros Michel bananas as an economic crop. The farming area was over 320 rai (128 acres) with 70 group members. About 400 banana trees can be grown in one rai (.40 acre) and 128,000 trees are grown in the 320-rai area annually. After harvest, the trees are cut down without further use, and about 30% are chopped up to decompose (Pinkham, 2016). Therefore, about 89,600 trees are uselessly discarded each year. Additionally, most elderly aged over 60 years in the community do not work and thus lead an idle life, despite the fact that they are still capable of working. As a consequence, they formed into an elderly group with 50 members, consisting of 32 members aged 60-69 years, 14 members aged 70-79 years, and 4 members aged 80 years and over. They were 64% of the labor force who were keen on producing wicker products which are considered local wisdom handed down from generation. The products are bamboo-based in the forms of household utensils and furniture. The products were sold in the community as a supplementary income (Thama, 2014). If the community knows how to exploit discarded materials, it will be a way to add more values to the wicker products.

From the field study to analyze problems and needs of the communities in Muang Kaen Municipality by organizing focus group discussions with community and Gros Michel banana farming representatives and municipality officers, it was revealed that they needed to exploit the banana fibers in order to produce souvenirs for tourists and visitors. One distinct and unique feature of the products was that natural dyes must be used. From an investigation on the feasibility of dyeing the fibers with natural dyes by Canbolat et al. (2015), it was found that banana fibers are classified in the cellulose fibers which can be naturally dyed like other types of natural fibers. The mordants should include 4% copper sulphate (CuS04), 15% alum, and 4% ferrous sulphate (FeS04). However, the fibers to be dyed must undergo the cleaning process to rid of dirt. Singh & Sharma (2020) found that the mordants of 5% alum, 5% ferrous sulphate, and 5% stannous chloride enable banana fibers with natural dyes to have color fastness against washing, brightness, and fineness (2,400 Nm) and to twist well after having undergone the quality improvement (Ortega, 2016). This indicates that the fibers can be developed into color-fast products. After the products have been used for a time being, the fibers will not become fluffy, which can positively affect the acceptance of consumers on banana fiber-based products. The acceptance occurs when consumers personally feel toward particular products through their perceptions, attitudes, and opinions, ultimately leading to acceptance or rejection of the products.

In this investigation, discarded banana fibers after harvest at Cho Lae village in Mae Taeng district, Chiang Mai province, are exploited for maximum benefits. The fibers are separated and naturally dyed in order to produce wicker products as an alternative for the elderly to use instead of bamboo. One benefit from this investigation is for the community elderly to commercially produce banana fiber-based wicker products based on their local wisdom, which would ultimately create more jobs, incomes, pride, and better mental health for the elderly. Furthermore, the community is able to produce new green products that can preserve their cultural heritage and wisdom.

Objectives

1. To develop wicker products from Gros Michel banana fibers with natural dyes
2. To test the acceptance of the target consumers on wicker products from Gros Michel banana fibers with natural dyes

Methodology

This type of research is research and development. The research was carried out in the following steps:

The sample groups

1. Three prototypes of wicker products made from Gros Michel banana fibers with natural dyes selected by the elderly from a focus group discussion. They included a bag, a lampshade, and an office utensil.

2. Three experts for assessing the product prototypes. They included one expert in product development to assess the prototypes according to the product design principles, one expert in product production and sales to assess the feasibility of the production and commercialization of the products, and one textile academic to assess the propriety of the fact that the fibers could lead to sustainable production. The assessment was based on practicality and functionality.

3. Fifteen Cho Lae Community representatives to participate in selecting the product drafts and assessing their own production capability and potential.

4. One hundred target consumers for product testing. They included fifty domestic and foreign tourists visiting Anusarn Market and fifty people on the Tha Phae Walking Street. The accidental sampling method was used to select the sample group who were actually at the exhibition and interested in the wicker products.

Research instruments

To collect the data based on the research objectives, the product prototype assessment and the questionnaire for product testing were utilized.

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Data collection and analysis

Information about wicker production and product identity in the community was investigated in order to find out unique designs and features of the products. Rapport was established with community members. A focus group discussion was organized with ten elderly members to analyze their production capabilities. Additionally, information about existing wicker production techniques, materials used, and designs was explored in an attempt to use the information as a guideline to create the new products from Gros Michel banana fibers. Twisted and braided fibers were used for the production. The representatives selected the weaving and twisting designs based on their capabilities. After that, three prototypes were produced, which comprised a bag, a lampshade, and an office utensil. The prototypes were then assessed by the experts for designs and recommendations. After improvement, the prototypes were tested for acceptance of the target consumers who were avid wicker product aficionados. The data from both domestic and foreign consumers were used to improve the products, so that they could be in line with their needs. The mean of the product testing was 4.00, which indicated that the products were truly acceptable among the consumers, and the result would be incorporated for further analysis.

For the data analysis, the descriptive statistics was employed to obtain the mean and standard deviation.

Results

The research results are summarized as follows.

1. From the fieldwork data collection in the community, it was revealed that all 50 elderly members gathered at the elderly center in the village in their free time to participate in activities organized by the center. Wicker production is one of the important activities because some of the elderly are skillful in and keen on producing wicker products. The products are used as household utensils in their everyday life and in rituals. The material is mainly bamboo which is easily available in the community. Current products are chicken coops, round baskets, and wide-mouth baskets, as shown in Figure 1.

Figure 1 Wicker products of the elderly group
(Source: Researcher, 2017)

From the data analysis, it was found that the banana fibers could be applied to produce wicker products. However, due to the limitations in that the fibers are small, soft and mono-fibrous, it is impossible to structure into wicker products. As a consequence, it is necessary to bundle up the fibers into a proper size to lay out the product structures. In this investigation, two bundling techniques, twisting and braiding, are used by incorporating 15 to 20 fibers. If more fibers are used, the bands will be too large for the products to be refined. Moreover, it was revealed that separating the fibers by a semi-automated machine would yield fibers small enough for the dyes to be absorbed well, making the dyes bright and distinct. This finding is in contrast with the method of scraping the layers in large pieces, sun-dried, and dyed. These dried and unclearned fibers are difficult to absorb natural dyes and do not have color fastness.

For the developed wicker products, they are based on the product design principles posited by Sooksod (2001), which emphasize functionality and beauty of the products. They are also based on the capabilities of the participating elderly, so that they are able to further develop and improve the products sustainably on their own. The steps of prototype product design and development are as follows.

1. The target group was specified. They were in the working age ranging from 30 to 60 years, whose lifestyles could be identified, who had purchasing power to buy community products, and who appreciated wisdom-and-culture-oriented products.

2. Preliminary ideas for product design were developed. Due to the soft feature of the fibers, the appropriate materials to erect and strengthen the structures of the products are used, which are leather, iron and wire. For a bag, the focus of the design is on strength and concealment of what is inside. For a lampshade, it is necessary for the light to pass through, so the structure must be transparent. For an office utensil to meet current lifestyles, it must be multi-functional.

3. Design refinement is to improve the design drafts with the combination of color, shape, figure, line, and surface with balance, unity, and beauty according to the principles of product design. There were ten drafts for each product with a total of 30 drafts to select the most suitable and feasible ones.

4. Analysis is to select the ones suitable and feasible for further development and commercialization. The selection was conducted by the elderly representatives in order to produce the prototypes. Furthermore, they collectively selected the colors for the three products, which are pink from lac for the bag, gray from Burmese rosewood bark for the lampshade, and blue from indigo for the office utensil.

5. Production is when the twisted and braided fibers are made into the draft models by using the weaving and twisting techniques. There were a total of ten prototypes, divided into three types of bags, four types of lampshades, and three types of office utensils. The details of the three product prototypes are as follows.

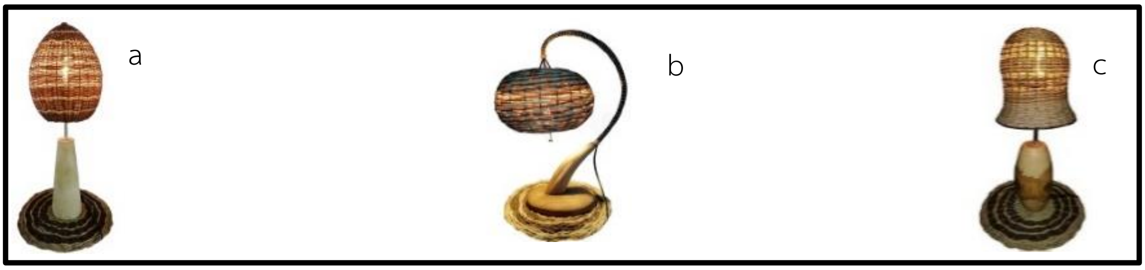
5.1 The bags consist of a shoulder bag, a carry-on bag, and a handbag. They are made from banana fibers dyed from lac extract and those without dyeing. The design is intertwined twisting in the husked rice pattern, making the product thick, opaque, and strong. Only the round shoulder bag uses the transparent pentagon pattern and leather is used to support and strengthen the structure, as shown in Figure 2.

(a) Round shoulder bag (b) Carry-on and shoulder bag (c) Square handbag

Figure 2 Bag products

(Source: Researcher, 2017)

5.2 Lampshades are in the dome, round and bell shapes. The dye for the fibers is from the bark of Burmese rosewood and white cheese wood which are locally available. The wide and narrow design is proportionate, allowing light to pass through. A 1/8” wire is used to strengthen the structure and to make the product contemporary, as shown in Figure 3.



(a) Dome-shaped lampshade (b) Round lampshade (c) Bell-shaped lampshade

Figure 3 Lampshade products

(Source: Researcher, 2017)

5.3 Office utensils comprise a brief-case, a plant saucer, and a pencil case. The fibers used are natural and indigo-dyed ones. The weaving techniques include twisting, knotting, and transparent twisting (pentagon). Leather is used to decorate and strengthen the structures, as shown in Figure 4.

(a) A brief case (b) A plant saucer (c) A pencil case

Figure 4 Office utensils

(Source: Researcher, 2017)

6. Appraisal is to assess the product prototypes by the experts and their recommendations are used to improve them. The appraisal results revealed that the mean scores for the bags were 4.09±0.67 at a high level, 4.59±0.45 at the highest level for the lampshade, and 4.37±0.52 at a high level for the office utensils. For their recommendations, it was revealed that the products were diverse enough to commercially develop at the community level. However, more colors should be added to be in line with fashion trends, so that the products could be fashionable and as an alternative for consumers. The appraisal results are shown in Table 1.

Table 1 Product appraisal results by the experts

Description	Bag			Lampshade			Office utensil		
	$\bar{x}$	S.D	Level	$\bar{x}$	S.D	Level	$\bar{x}$	S.D	Level
1. Wicker designs are suitable for the products.	3.67	0.58	high	4.67	0.58	highest	4.33	0.58	high
2. Using Gros Michel banana fibers for the products is appropriate.	4.67	0.58	highest	4.67	0.58	highest	4.66	0.58	highest
3. Supplementary materials for the products are suitable.	4.67	0.57	highest	4.67	0.58	highest	4.66	0.58	highest
4. The products maintain local wisdom identity of wickerwork.	4.00	1.00	high	5.00	0.00	highest	4.33	0.58	high
5. The colors used for the products are appropriate.	3.33	0.58	moderate	4.33	0.58	high	3.33	0.58	moderate
6. The sizes of the products are suitable.	3.67	0.58	high	4.00	0.00	high	3.67	0.58	high
7. Utility of the products is appropriate	4.33	0.58	high	4.67	0.58	highest	5.00	0.00	highest
8. The products can create value addition according to creative economy.	4.44	0.58	high	4.67	0.58	highest	4.67	0.58	highest
9. Overall satisfaction with the products	4.00	1.00	high	4.67	0.58	highest	4.67	0.58	highest
Total	**4.09**	**0.67**	**high**	**4.59**	**0.45**	**highest**	**4.37**	**0.52**	**high**

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From Table 1, it is revealed that the overall mean of the appraisal was 4.35, with the lampshades having the highest mean scores at 4.59 followed by the office utensils, 4.37, at a high level and the bags, 4.09, at a high level respectively. When the items were considered, it is found that the mean scores of the suitability of using the fibers to produce the products and the use of supplementary materials were at the highest level in all products. This finding indicated that the fibers could be properly used to produce wicker products by the community.

Product testing was conducted to find out the acceptance of 100 domestic and foreign tourists visiting the target areas and having an interest in wicker products. From the questionnaire, it is revealed that 56% of the respondents were females, 57% were single, 30% were in the age range between 26 and 30 years, and 38% were self-employed. Additionally, 36% held an undergraduate degree and 39% had a monthly income between 40,001 and 50,000 baht. The acceptance of the respondents on each product is shown in Table 2.

Table 2 Product testing results on the products of the respondents

Description	Bag			Lampshade			Office utensil		
	$\bar{x}$	S.D	level	$\bar{x}$	S.D	level	$\bar{x}$	S.D	level
Beauty									
1. Weaving designs are suitable for the products	4.78	0.46	highest	4.65	0.54	highest	4.65	0.48	highest
2. The colors used for the products are suitable.	4.69	0.56	highest	4.35	0.54	high	4.56	0.52	highest
3. The product designs are suitable	4.68	0.53	highest	4.49	0.53	high	4.36	0.54	high
4. The product designs are innovative	4.45	0.56	high	4.65	0.58	highest	4.25	0.56	high
5. The supplementary materials are suitable.	4.69	0.51	highest	4.69	0.54	highest	4.56	0.55	highest
Total	**4.65**	**0.52**	**highest**	**4.56**	**0.55**	**highest**	**4.48**	**0.53**	**high**

Table 2 Product testing results on the products of the respondents (Continue)

Description	Bag			Lampshade			Office utensil		
	$\bar{x}$	S.D	level	$\bar{x}$	S.D	level	$\bar{x}$	S.D	level
Products									
1. The material is suitable for the products.	4.50	0.46	highest	4.59	0.57	highest	4.53	0.58	highest
2. The sizes of the products are suitable.	4.45	0.52	high	4.22	0.60	high	4.18	0.62	high
3. The products are fashionable and innovative.	4.42	0.55	high	4.66	0.61	highest	4.00	0.63	high
4. The products can create value addition according to the creative economy.	4.55	0.56	highest	4.56	0.60	highest	4.57	0.59	highest
5. The products can be produced at the community level.	4.65	0.52	highest	4.60	0.55	highest	4.50	0.57	highest
6. The products are commercialized of the local wisdom.	4.66	0.50	highest	4.69	0.53	highest	4.68	0.53	highest
7. The weaving techniques indicate the maintenance of local wisdom.	4.65	0.50	highest	4.66	0.55	highest	4.63	0.56	highest
8. The materials are locally available and environmentally friendly.	4.55	0.54	highest	4.67	0.53	highest	4.49	0.48	high
9. The products optimally exploit locally available materials.	4.62	0.51	highest	4.78	0.53	highest	4.63	0.45	highest
Total	**4.56**	**0.52**	**highest**	**4.60**	**0.56**	**highest**	**4.47**	**0.56**	**high**
Functionality									
1. The products are suitably functional.	4.64	0.64	highest	4.54	0.56	highest	4.47	0.46	high
2. The products are convenient to use.	4.69	0.60	highest	4.35	0.48	high	4.54	0.50	highest
3. The products are safe, strong, and durable for use.	4.73	0.50	highest	4.30	0.51	high	4.59	0.50	highest
4. The designs of the products are suitable and functional.	4.67	0.53	highest	4.45	0.62	high	4.6	0.62	highest
5. The products are easy to maintain.	4.31	0.62	high	4.42	0.58	high	4.49	0.54	high
Total	**4.60**	**0.58**	**highest**	**4.41**	**0.55**	**high**	**4.54**	**0.52**	**highest**

From the table, it can be summarized that the overall mean of the products is 4.54±0.54, indicating that the target consumers accepted the products made from the banana fibers. This is because the overall mean scores are higher than the predetermined scores of 4.00. It is thus a good opportunity for the community to further develop the products for commercialization. Moreover, additional suggestions revealed that the lampshades should be collapsible for interested foreigners to bring home. If this feature could be improved, it would provide another channel for the products to be available in an international market. Furthermore, the products should be more diverse in order to provide consumers more alternatives. For the products with transparent designs like round-shaped lampshades and briefcases, weaving spaces should be smaller and more reinforcement materials should be added to strengthen the structures of the products.

Discussions

1. In developing the wicker products, the fine and small banana fibers were scraped by a semi-automatic machine. The twisting and braiding techniques were employed to derive the yarns big enough for weaving. The tensile force of banana fibers is at 233-337 MPa with 2-3% resistance and flexibility of 17-22 GPa (Inpakdee & Boonyanate, 2019), making the fiber bundles strong and tough. The wicker designs of the three product types are in line with the traditional ones of the community. Wickery is folk knowledge passed down from generation to generation. It is a type of folk asset, wisdom, culture, and handicraft skill. It is also a social capital because it has been passed down and owned by community members (Ngamlamom, 2015). Therefore, it is essential to turn this local wisdom into tangible new products. Designs, fineness, and materials for wicker products are uniquely different from community to community. Product design must be based on suitability and functionality. Leesuwan (1996) stated that appraisal of wicker products should be based on functional and esthetic or artistic values. Product development based on local wisdom not only promotes the wisdom but also maintains conventional wisdom and identity as well as empowers community handicraft. Wicker identity and uniqueness are valuable and should be investigated as the foundation for further product development. If the development is not in a correct and appropriate manner, identity and unique aspects of wicker works can be damaged irreparably. Khamhan *et al.* (2016) reiterated that the development of local wisdom and knowledge for commercial purposes would make community economy sustainable in accordance with the Sufficiency Economy Philosophy by managing and utilizing local natural resources and environment. Thus, adding more values to discarded materials by producing wicker products for commercial purposes creates jobs and incomes for the elderly as well as empowers the community and promotes community economic growth sustainably. The product development process requires an investigation, thinking, designs, revision, and improvement in an attempt to derive innovative and quality products. Ulrich & Eppinger (2012) stated that the product development process is a sequence of steps that transforms a set of inputs into a set of outputs. A clear process contains quality assurance, coordination, planning, management, and improvement.

The conclusion of the product development process is the product launch, and subsequently the product becomes available for purchase in the market.

2. From exploring the acceptance of the products by the target consumers, it is concluded that the mean scores of all product types were at the highest level in all aspects. For the beauty aspect, the highest level was on the wicker designs suitable for each product type. The designs were applied from the conventional ones practiced by the community, conveying the artistic beauty of folk wicker regarding shapes, structures, designs, and materials. The structures are an essential component that reinforces artistic beauty and values of the products. Attractive and functional products can raise the consumption taste of consumers (Wiangamphon, 1997). The focus of these current designs is on both beauty and functionality. Therefore, product beauty is the first impressive factor influencing consumers to buy products. This notion confirms Tangcharoen (1996), stating that product design must be related to consumers' needs. For instance, it must be in line with their lifestyles, economic needs, and esthetic values and beauty. For the natural dye extracts used for this product development, they are locally available. Separating the fibers before dyeing enables the dyes to absorb into the fibers well, and when they are bundled, twisted, or braided, the colors are even more distinct and outstanding. This finding contradicts with that of Leesuwan (1996), saying that the fibers were torn into small bands, sun-dried, and wove into utensils. In this investigation, the fibers were separated individually. When they were dyed with natural dyes, color fastness on the fibers was better. Thus, the colors of the products are distinctly bright, making the mean scores on the product acceptance at the highest level, and higher than the predetermined scores of 4.00. This is regarded that the product development with an emphasis on both beauty and functionality is able to produce for commercial purposes. The product testing before the product launch reduces the opportunity for mistakes in actual production. A small number of the products were put for sale in the market for consumers to try and express their reactions, so that product adjustment or improvement and marketing strategies could be altered accordingly. This is in line with the acceptance theory of Hambling (2013) in that user acceptance requires formal testing and the tests should be designed and conducted in a structured way that provides objective evidence of the acceptability of the system. The test for this investigation was formulated according to the aspects of the products, namely beauty, product, and functionality, in an attempt to derive the overall information in accordance with market needs.

For the product development, the product designs were intended for actual practicality at the community level. The products are based on local wisdom for commercial purposes and value addition according to creative economy. This is to bring cultural capital for commercial and social value addition. In order to further exploit cultural capital, collaboration from state and private sectors must be established with a common goal of maintaining traditional identity, arts, and culture (Naenna, 2016). This is in line with Khamhan et al. (2016) in that banana fiber-based fabric is a commercial development of local knowledge and wisdom in order for sustainable economic development of communities according to the Sufficiency Economy Philosophy. The designs of these products focus on modernity, influencing the consumers to accept and purchase the products. The acceptance is an individual behavior to accept things regarded as concretely and abstractly better to apply or practice with satisfaction (Wandee, 2002).

As for functionality, the products were designed and produced with a focus on both beauty and functionality. As a consequence, the product testing scores on this aspect were at highest level. This finding is similar to that of Sooksod (2001) in that functionality is the first priority in product design that must be taken into consideration. In this research, functionality of the developed products is suitable and correct according to the objectives, that is, they are able to meet consumers' needs efficiently and conveniently, and they are easy to maintain and take care of. Additionally, they are safe, strong, and durable. The strength of the products depends on the structures and materials used for product development. For these products, the supplementary materials to reinforce the structures are leather, iron, and wood, which are suitable for the products to remain strong and durable after use. Besides appropriate main and supplementary materials and structures, economy must be taken into consideration simultaneously.

Conclusion and suggestions

The development of wicker products by using Gros Michel banana fibers revealed that the fibers can be made into the product prototypes with supplementary materials, e.g., leather, iron, wood and wire, as their structure foundations in order for the products to be in shape and beautiful. For weaving, around 15-20 dyed fibers are used for twisting and braiding into a strong and brightly colored band. The developed product models are initially based on the techniques that the elderly are keen on. Then, new techniques are incorporated to make the products more diverse. Moreover, they can be used as a guideline to further develop new products in the future. It is certain that the products are commercially viable due to the fact from the testing that the target consumers accepted the products with mean scores higher than the predetermined 4.00.

Recommendations of Research

1. These banana fiber-based products are environmentally friendly. Therefore, supplementary materials to reinforce the structures should be in line with product types.

2. From the research findings, there are only two weaving designs, twisting and transparent pentagon, and they are the ones the elderly are able to do. It is thus recommended that they be trained to create other designs to apply to producing more diverse designs and products.

3. Transportation should be considered during the product development because these products are attractive for tourists and foreigners.

4. The fibers should be considered during the products, so that suitable methods can be applied to develop other product types.

5. An investigation on the guideline to improve the quality and standard of the banana fiber-based products should be carried out, so that they can be in line with the needs of domestic and international markets in order to increase distribution opportunities in the future.

6. There should be a study on dyeing Gros Michel banana fibers with other natural dye extracts, e.g., bark from Broken Bones trees and Myrobalans, Sappan wood, and turmeric, so that shades are diverse enough to provide more alternatives to consumers.

7. There should be a SWOT analysis of the elderly in order to find a guideline to improve and develop research studies that are able to solve community problems in a multi-dimensional manner.

8. There should be an investigation on the development of diverse banana fiber-based products, such as, furniture, attire, or eating utensils. This will provide consumers more alternatives to buy and it will be a guideline to expand marketing opportunities for natural fibers.

New knowledge and the effects on society and communities

This wicker product development based on Gros Michel banana fibers with natural dyes provides another career for the participating elderly. The discarded fibers after harvest were undergone a fiber separating process by using a semi-automatic machine. They were then dyed with natural pigments. They can absorb the dyes better than the sun-dried fiber bands. The colors are relatively bright and fast. Twisted bundled fiber bands are able to weave into products. As a consequence, not only does exploiting the fibers use for wicker production, but they can also be applied to developing other products by using other methods like weaving and embroidery. The developed products in this study are based on a new locally available material in order to add more values to them. The community is also able to find a way to manage agricultural waste and to exploit it for optimal benefits. This practice can create more jobs and incomes at the household and community levels, driving the community economy better. Futuremore, the community is able to depend on itself sustainably. They can also transmit this knowledge to neighboring communities. However, to sustainably drive the economy with handicraft, it requires cooperation from concerned agencies and state offices by formulating visions and strategies to strengthen the efficiency of integration and development of local handicrafts, so that community economy can grow and be developed sustainably.

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Strategies for Building a Knowledge-Based Economy for Community Enterprises in the Eastern Economic Development Zone

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Abstract

This research aims to study the strategies for creating a knowledge-based economy for community enterprises in the Eastern Economic Development Zone. The study has been designed as a mixed method by developing the analysis of structural equation model through qualitative data and the quantitative data were derived from the survey of 300 community enterprises in the Eastern Economic Development Zone. They're used descriptive statistics, inferential statistics, and multivariate statistics. The research instrument was a questionnaire and analyze data with Structural Equation Modeling: SEM. The data analysis program AMOS stipulates a multi-stage sampling method. It consists of group sampling procedures (Cluster-sampling) separating the populations into 3 areas. Then they're used simple random sampling to obtain the required number of samples according to the desired proportion.

The finding consists of three components that are important to the strategy for building a knowledge-based economy at a high level according to the Likert scale: namely, management components, new product development, and marketing. To assess the coherence of the structural equation model, the strategies for creating a knowledge-based economy for community enterprises in the Eastern Economic Development Zone passed the model's evaluation criteria which are consistent with the empirical data. In accordance with the Modification Indices, it was found that the root index of the square mean of the Chi-Square Probability Level was 0.109 while the relative Chi-square was 1.316. The Goodness of Fit Index was 0.973 and the Root Mean Square Error of Approximation was 0.033. It was found the components of Management have highest direct influence on New Product Development components (DE= 1.11) followed by New Product Development components, which have direct influence on Marketing (DE= 0.57) and Management components have direct influence on Marketing (DE= 0.42)

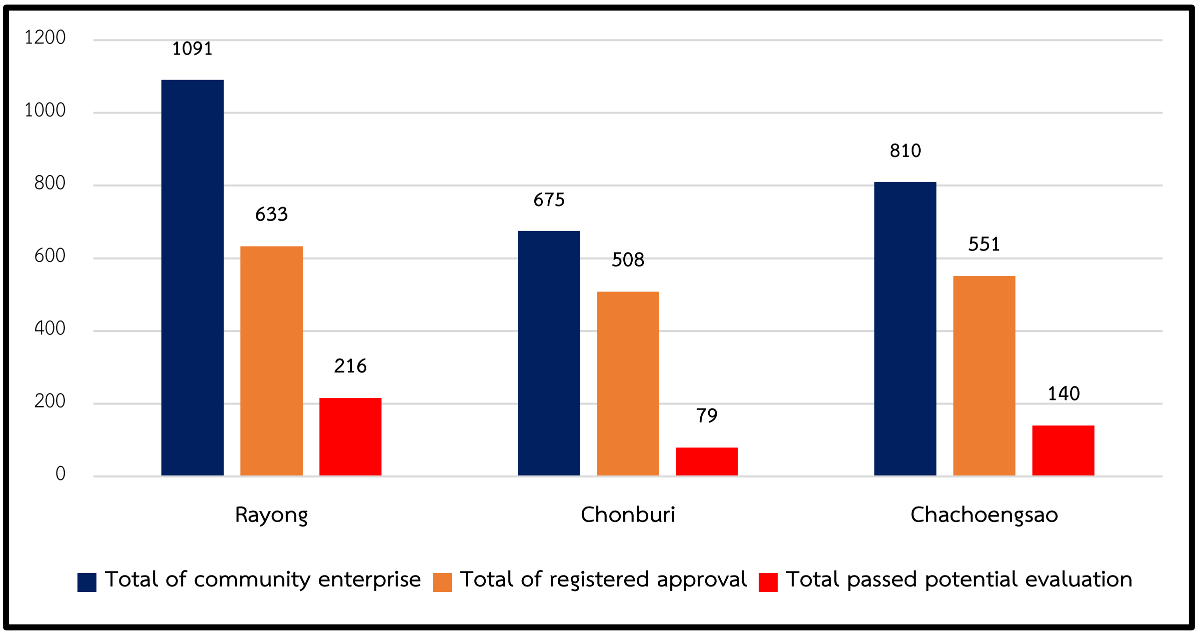
From this study, it is learned about the strategies for creating a knowledge-based economy for community enterprises in the Eastern Economic Development Zone. To increase potential of the Grassroots Economy, to provide income, to reduce inequality, and brings community enterprise to be sustainably.

Keywords: Knowledge-based economy, Eastern economic development zone, New product development

Introduction

The transformation in the digital technology era is rapid and intense with the spread of COVID-19 as a catalyst. Business processes with less expo including consumer behaviors and working practices changes. (Li, 2021) And we must admit that most developed countries exist in a broad knowledge- and service-driven economy. The innovation confusion has transformed the contemporary economy into what is known as a "knowledge-based economy". In this economy, the business world is rapidly evolving with competencies and data-centricity, resulting in new business models transforming a contemporary society into a cognitive society, ready to adapt to new changes (Abed, 2021). Therefore, the context of the global economy in the era of competition with digital technology has been exponentially spread, affecting a wide range such as marketing channel, new product development, e-commerce platform. Business operations in all dimensions require rapid adaptation to keep up with unexpected changes, which is now widely accepted that the development of the world society is in the same direction throughout the world, which is developed under the so-called "Knowledge-based Economy and Society". Therefore, when we look deeper, a basic economy like a community enterprise is important. Community enterprises arise from the gathering of people in the community together with the use of local knowledge and wisdom, aimed primarily at responding to the needs of the people in the community. At the same time, if there is a way to expand the business, it expands to outside communities. At present, there are 93,929 registered community enterprises (Community Enterprise Promotion Division, 2021) accounting for 3.0% of SMEs in the country, generating an annual income of more than 25.55 billion baht (Office of SMEs Promotion, 2021). Therefore, it is one of the mechanisms for driving the fundamental economy, creating jobs, and generating income for the community.

However, according to data from the Department of Community Enterprise Promotion, there are 2,576 enterprises of all types in the three provinces of the Eastern Economic Development Zone. Around 1,692 registered establishments, representing 65.68%, only 435 establishments passed a potential assessment, accounting for 25.70%. When looking at the information in each province, it is found that there are a total of 1,091 enterprises of all types; 633 are registered enterprises, and 216 passed the potential assessment in Rayong province. At the same time, there are 675 enterprises of all types in Chonburi province. Around 508 enterprises have been approved for registration, and 79 enterprises have passed the potential assessment. In Chachoengsao province, there are a total of 810 enterprises of all types. Around 551 enterprises have been approved for registration; and 40 of them passed the potential assessment, respectively as shown in Figure 1



Figures 1 Show the number of community enterprises that have been registered and passed the potential assessment. (Community Enterprise Promotion Division, 2021)

According to the aforementioned information, the number indicates the potential of community enterprises that have a lot of problems in efficiency and opportunities for trade and business growth and from the importance and problems mentioned above that we have seven topics for the potential assessment such as process, planning, marketing, knowledge management & information system, member management, product & services, and result base management. We found community enterprise is generating revenue more than 2.55 billion baht per year (Community Enterprise Promotion Division, 2021) The lack of management efficiency and lack of opportunities for business expansion of community enterprises affecting the overall economy of the country at the foundation level, need to be adjusted in accordance with the changing context of technology and innovation in the world. It is important to apply knowledge of technology and innovation to drive product development, production, distribution, and service design, and build intellectual capital through effective knowledge management processes in the community. This is to increase competitiveness. Products can be distributed from the community to the global market without the need for middlemen. Moreover, they truly generate income and strength for the community.

Therefore, the researcher is interested in studying strategies for building a knowledge-based economy for community enterprises in the Eastern Economic Development Zone by studying strategies for creating a knowledge-based economy for community enterprises in each aspect, such as marketing factors, management, and product development. It is necessary therefore for community enterprises to have information for use in strategic management to lead the new generation of community enterprises to create a knowledge-based economy, adding value to products to increase their competitiveness to create wealth sustainable for the country's grassroots economy.

Management

Grodgangunt (2021) presented their research paper regarding the development of value-added marketing strategy management potential applied for durian agro-community enterprises in the southern border provinces. The results showed that the development of a management system to increase the competitiveness of community enterprises consisted of the development of the organizational structure, membership system, and development plan management system, add value product development marketing strategy, and management optimization and networking. Meanwhile, Romprasert & Trivedi (2021) found that a sustainable economy for community enterprises requires the adoption of digital marketing, demonstrating the influence of management in the dimensions of modern information technology. The severe marketing effect in today's world, therefore, the management within the community enterprises in all dimensions will have a significant influence on marketing.

New Product Development

Cavite et al., (2021) presented research on strategic approaches for community enterprise development case studies in rural areas in Thailand and found that policies for capacity building by product development are the main strengths and opportunities of the organization to increase sales. The fact that the new product has been approved and supported by external organizations is an important strategy for development. Empirical results in the dimension of new product development are consistent with Pannatekave (2021) who presented his research on local product development of small community enterprises in Thailand and found that improving the standards of local products to improve the response to the needs of visiting tourists or other target groups is a means of generating more income for the community.

Marketing

Grewal (2019) presented research on the future of technology and marketing multidisciplinary new technologies have revolutionized almost every aspect of human existence, including how the company markets in terms of delivering products and services to consumers, familiar innovation advancements such as the Internet, mobile devices and applications and social media. Technological advances are having a profound impact on the practice of marketing. Saura (2020) presented research on using data science in digital marketing, frameworks, methods, and performance indicators, using data sciences to facilitate decision-making and extracting insights and knowledge. The action taken from large datasets in the digital marketing environment has increased dramatically, developing digital marketing strategies for businesses, marketers and non-technical researchers. It is related to data mining applications and innovative knowledge discovery.

Objective: This research examines strategies for building a knowledge-based economy for community enterprises in the Eastern Economic Development Zone.

Research objectives

1. To study general characteristics about strategies for building a knowledge-based economy for community enterprises in the Eastern Economic Development Zone.
2. To study strategies for building a knowledge-based economy for community enterprises in the Eastern Economic Development Zone.
3. To develop a structural equation model of strategies for building a knowledge-based economy for community enterprises in the Eastern Economic Development Zone.

Review Literature:

Wanpong (2017) conducted a study on the development of community enterprises. His case study involved the indigo-dyed streetwear group Ban Tao Cave in Sakon Nakhon Province. The objective of this study is to study problems and obstacles and to determine the development of community enterprises. Examples of this research include group presidents; for example, the community vice president, and member of the indigo-dyed street group. The findings showed that support from government agencies remained relatively limited, and other management developments such as packaging, distribution, and adoption of modern technologies in production operations remained unclear.

Phawat (2016) has presented research on business skills and the potential development of small business entrepreneurs by comparing skills in business and developing the potential of small business entrepreneurs. The sample group of this research consisted of 400 people. The instrument used was a questionnaire. The statistics used for data analysis were frequency, percentage, mean, standard deviation, t-test and chi-square. The results showed that most of the business entrepreneurs are men, aged not over 29 years old, business owners, do retail business and operate a business for no more than five years. Business operators have a proficiency level in business skills and need potential development at a high level in all aspects. The results of the analysis of business skills and the need for the development of different potentials and skills of entrepreneurs in business have a relationship with the need for the potential development of entrepreneurs. It was statistically significant at the 0.05 level.

Research Hypothesis

This research tested three hypotheses:

Research Hypothesis No. 1

H1: The management component directly influences the marketing component

Managing an organization to be successful in today's competitive business has many dimensions. Companies must carefully manage to become a leader in their marketing strategy, of which. It is the use of information technology resource management to support, for example, using social networks to improve business products. One of them is the website. Websites can be easily accessed by many people with the help of technology. The company can carry out all marketing activities that are not only efficient but also effective. In addition, the website provides some information that makes it easy to get fast and accurate information (Wahyuni & Lestari, 2020). In addition to technology, customer relationship management influences marketing efficiency using numerous innovations. Customer relationship management has a direct, positive and significant effect on business efficiency (Dehghani et al., 2020).

Research Hypothesis No. 2

H2: The management component directly influences the new product development component

In the changing conditions of the global economy, both innovation and technology, as well as business competition, will be fierce. Organizations must plan and manage to meet the changes and needs of those markets, resulting in them adapting and preparing. Therefore, to create an organization that is effective, the organization will require the management of basic resources and innovation. Technology management to support systematic product development. Large amounts of data must be used and managed and interconnected (Hanna, et al., 2020). In addition, the development of products towards sustainability and environmental friendliness must pass a clear-cut management system (Diaz et al., 2021).

Research Hypothesis No. 3

H3: The new product development component directly influences the marketing component

Product development process, understanding the life cycle of products, services, and feasibility analysis of new distribution and communication channels. Ability to better define the value of products and services in the age of 4.0 technology, which directly affects sales and profits (Arromba et al., 2020). In recent years, knowledge management principles have been adopted by almost all organizations because the pressures of globalization and intense competition have forced organizations to adapt to change (Staple, 2013). Product development capabilities result in stable marketing efficiency. As for industry, the macroeconomic perspective is an important feature. This is to gain insights for successful product development (Helm et al., 2020).

Methodology

1. Qualitative Research: The qualitative research data were derived from an in-depth interview with 7 experts consisting of 4 community enterprise chairman or president of the Agro-Tourism for Community and 3 government experts in the field agriculture. The research instrument used in this research was a structured interview in which the researcher set the interview guideline for three components: management component; new product development elements and marketing elements. The results of the Index of Item Objective Congruence (IOC) examination were in the range of 0.60-1.00 (> 0.5). After that, 18 questions were taken as an estimation scale for the Try-Out to take the points obtained from asking for opinions to classify the discrimination value, which resulted in the reliability value of the questionnaire, considering the Cronbach Alpha value is 0.987 (> 0.8) and the results of the analysis of discrimination value item by item in the questionnaire that is a checklist with the analysis of Standard Deviation (S.D.), the value is between 0.546 to 2.113 and the question is a rating scale by analyzing the Corrected Item-Total Correlation value between 0.353-0.840.

2. Quantitative Research: The qualitative data were derived from 300 samplings of community enterprises registered with the Department of Agricultural Extension. Unit through random sampling technique. (Comrey and Lee, 1992) They were divided into 3 areas. (EEC) i.e. 100 samples from Chachoengsao province, 100 samples from Chonburi provinc and 100 samples from Rayong province. Data were analyzed using descriptive statistics by SPSS and Multivariate Statistical Analysis which was developed to SEM Model by AMOS program. The Evaluating of the Data-Model Fit criteria consisted of 4 values 1) chisquare probability > 0.05 2) Relative chi-square (CMIN/DF) < 2 3) Goodness of fit index (GFI) > 0.90 and 4) Root mean square error of approximation (RMSEA) < 0.08 (Arbuckle, 2012).

Table 1 The criteria to consider the conformity index

Evaluating the Data-Model Fit	Criteria
1) Chi-square Probability level: CMIN- ρ	More than 0.05
2) Relative Chi-square: CMIN/DF	Less than 2
3) Goodness of fit Index: GFI	More than 0.90
4) The root index the squared mean of the error estimation: RMSEA	Less than 0.08

3. Research tools: It is general information questionnaire. The questionnaire was a 5-item checklist, and the questionnaire was a Rating Scale. Which had criteria for giving the weight of the assessment into 5 levels according to the Likert method. 18 items consisting of 3 areas: management, new product development and marketing.

Results

Community enterprise members value strategies to create a knowledge-based economy for enterprises in the EEC.

Table 2 Averages and standard deviations of the priority level of strategies for building a knowledge-based economy for community enterprises in the Eastern Economic Development Zone

Strategies to create a knowledge-based economy for community enterprises in the Eastern Economic Development Zone	$\bar{X}$	S.D.	Level of importance
Total Overview	**4.32**	**0.52**	**High**
1 Management	4.29	0.82	High
2 New Product Development	4.37	0.30	High
3 Marketing	4.31	0.52	High

1. The results of the overall opinion analysis revealed that the value was at a high level. ($\bar{x}$ = 4.32) when considering each side, sorted by average from highest to lowest. It was found that new product development had a high average of opinions. ($\bar{x}$ = 4.37), followed by marketing ($\bar{x}$ = 4.31) and management ($\bar{x}$ = 4.29). Able to summarize each aspect as shown in Table 2

2. Analysis of modelling, equations, structures, and strategies for creating a knowledge-based economy for community enterprises in the Eastern Economic Development Area. It was found that the Chi-Square Probability Level (CMIN- ρ) was 0.109, the relative chi-square value (CMIN\DF) was 1.316, the conformity index (GFI) was 0.973, The mean square root index of estimation error (RMSEA) was 0.033 through the criterion in consistent with the empirical data. The statistical values passed all four criteria, so the structural equation model was complete and harmonious with the empirical data.

The researcher then proceeded to improve the model, considering the Modification Indices Arbuckle (2012). It was found that the Chi-Square Probability Level (CMIN- ρ) is 0.109 rather than 0.05, indicating that this model is not statistically significant. The relative chi-square value (CMIN\DF) is 1.316, which is less than 2, the Conformity Index (GFI) value is 0.973, which is greater than 0.90, and the root index value of the mean square of the tolerance estimation (RMSEA) is 0.033, which is less than 0.08. Therefore, it can be concluded that all four statistics passed the assessment criteria as shown in Figure 2.

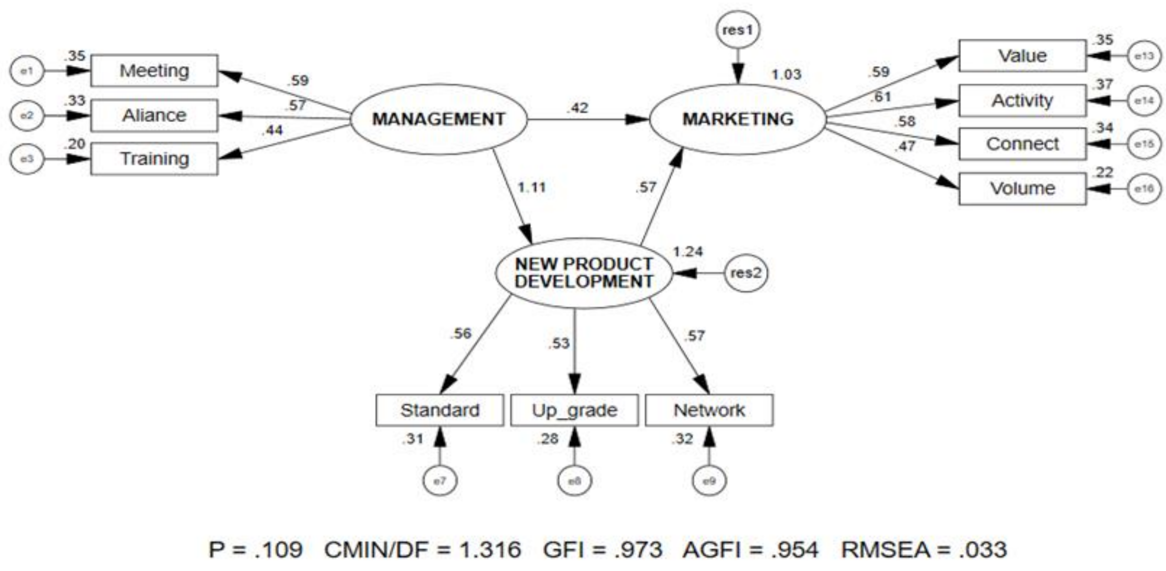


Figure 2 Model equations structure strategies to build a knowledge-based economy for community enterprises in the district. Eastern Economic Development Area in Standardized Estimate mode, after updating the prototype. (Source: Researcher, 2022)

Model equation's structure strategies for building a knowledge-based economy for community enterprises in the Eastern Economic Development Zone.

Hypothetical test results to analyses the causal influence between variables in strategies for building a knowledge-based economy for community enterprises in the Eastern Economic Development Zone. There are three hypotheses as follows:

Hypothesis 1: Management component had a direct influence on marketing component (DE= 0.42) Hypothesis 2: management component had a direct influence on new product development component. (DE = 0.75) and Hypothesis 3: new product development components had a direct influence on the marketing component. (DE = 0.83) which is shown in Figure 2.

A strategic model for creating a knowledge-based economy for community enterprises in the Eastern Economic Development Zone. Later improvements to the model include There are two latent variables divided into one exogenous latent variable, namely the management element and one endogenous latent variable, i.e., new product development element.

Management consists of three observational variables in order of descending weight values: variables, meeting to review past performance and short-term, medium- and long-term operational plans (Meeting) with a weight of 0.59 variables, variables with alliances or communities or associations in the formation of personnel and technology development partnerships (Alliance) with a weight of 0.57, and a training workshop variable with a weight of 0.44.

New product development consists of three observed variables in order of descending weight values as follows: Variables, product development cooperation network activities and community enterprise packaging (Networking) have a weight value of 0.57 variables. The standardized production process development approach weighs 0.56, and variables and variables elevate community products to a higher standard (Up-Grade) with a weight of 0.53.
It consists of four observational variables in order of descending weight values: Variables organize activities to promote the adoption of technology. The value of the product presented is 0.59 variables. Connect products to community culture to create content (Connect) has a weight of 0.58 and variables, and innovations to help create value for products and services. It has a weight value of 0.47.

Table 3 Statistical analysis of structural equation model for knowledge-based economy for community enterprise in eastern economic development zone in standardised estimate mode

Variable	Estimate Regression Weight	Square Multiple Correlation (R^2)	P-value
Management			
Marketing	0.42	1.03	
New Product Development	1.11	1.24	***
New Product Development			
Marketing	0.57	1.03	***
Management			
Meeting	0.59	0.35	***
Allianz	0.57	0.33	***
Training	0.44	0.20	***
New Product Development			
Standard	0.56	0.31	
Up-Grade	0.53	0.28	***
Networking	0.57	0.46	***
Marketing			
Value	0.59	0.35	
Activities	0.61	0.37	***
Connect	0.58	0.34	***
volume	0.47	0.22	***

Note: *** Significant level at 0.001; * Significant level at 0.05

Discussions

The strategy for creating a knowledge-based economy for community enterprises consists of three elements that are critical to creating a knowledge-based economy for community enterprises. To a large extent, according to Likert's gauge, include management elements, new product development, and marketing. Structural equation model analysis, strategy for building a knowledge-based economy for community enterprises, and later analysis of structural equation models.

There was found that overall, it was at a high level with an average of 4.32 in terms of New Product Development is of high importance with an average of 4.37. Marketing is at a high level with an average of 4.31 and Management was of high importance mean is 4.29, respectively.

The management component exerted a statistically significant direct influence on the new product development component at 0.001, with standardized regression weights equal to 1.11. Strategies for creating a knowledge-based economy for community enterprises in areas with the highest average scores include new product development with the highest average score ($\bar{x}$ = 4.37). The researcher is of the opinion that due to the current community enterprise under conditions of intense competition, creating different products and services is unique as well as applying knowledge and technology to create products and services to meet the needs of customers. On the survival in management of the gathering in form of community enterprise, the emphasis should be on producing new kinds of products, online marketing, or creating webpage for selling product, together. Consistent with research by Anusonphat & Poompurk, (2022). Meanwhile, community product development guidelines should be formulated to suit the way of the community. This is consistent with the research of Suphachariyawat (2022)

The new product development component exerted a statistically significant direct influence on the marketing component at 0.001, with standardized regression weights equal to 0.57. Product development capabilities result in stable marketing efficiency. It is an important feature. This is to gain insights for successful product development. Consistent with research by (Helm et al., 2020).

The management component exerted a statistically significant direct influence on the marketing component at 0.001, with standardized regression weights equal to 0.42. Managing an organization to be successful in today's competitive business has many dimensions. Companies must carefully manage to become a leader in their marketing strategy, of which. The company can carry out all marketing activities that are not only efficient but also effective. The future marketing. It was established that the dynamics of work have greatly changed from the traditional way of working from the organization premises to working remotely at home. Consequently, marketing has also shifted to different. Consistent with research by Kalogiannidis (2021)

Conclusion and suggestions

1. From the result of the research, it was found that the component of Management has a direct influence on the component of the New Product Development and directly influences the component of Marketing. In terms of management strategy, the community enterprise should be focus on the policy of new product development and marketing strategy both.

2. From the result of the research, it was found that the component of New Product Development has a direct influence on the component of the Marketing. In terms of research and development, it is the weakness the mostly of community enterprise so government including all concerned people must have to support knowledge, innovation or technology.

3. A strategic approach to creating a knowledge-based economy for community enterprises in the Eastern Economic Development Zone to connect the agricultural and tourism sectors such as health tourism and local cultural tourism, there is a need to review and adapt to increase the potential of community enterprises to generate additional income through value addition in all dimensions of digital community enterprise management.

New knowledge and the effects on society and communities

This research to create a new knowledge. These results of the study will be beneficial to the community's enterprise and government. There can be applied the knowledge to solve the economic crisis to develop the strategy for community enterprise for sustainable growth. The community enterprise can apply the form of the Structural Equation Model to be used as a strategic planning. To improve and increase the potential and to generate additional income.

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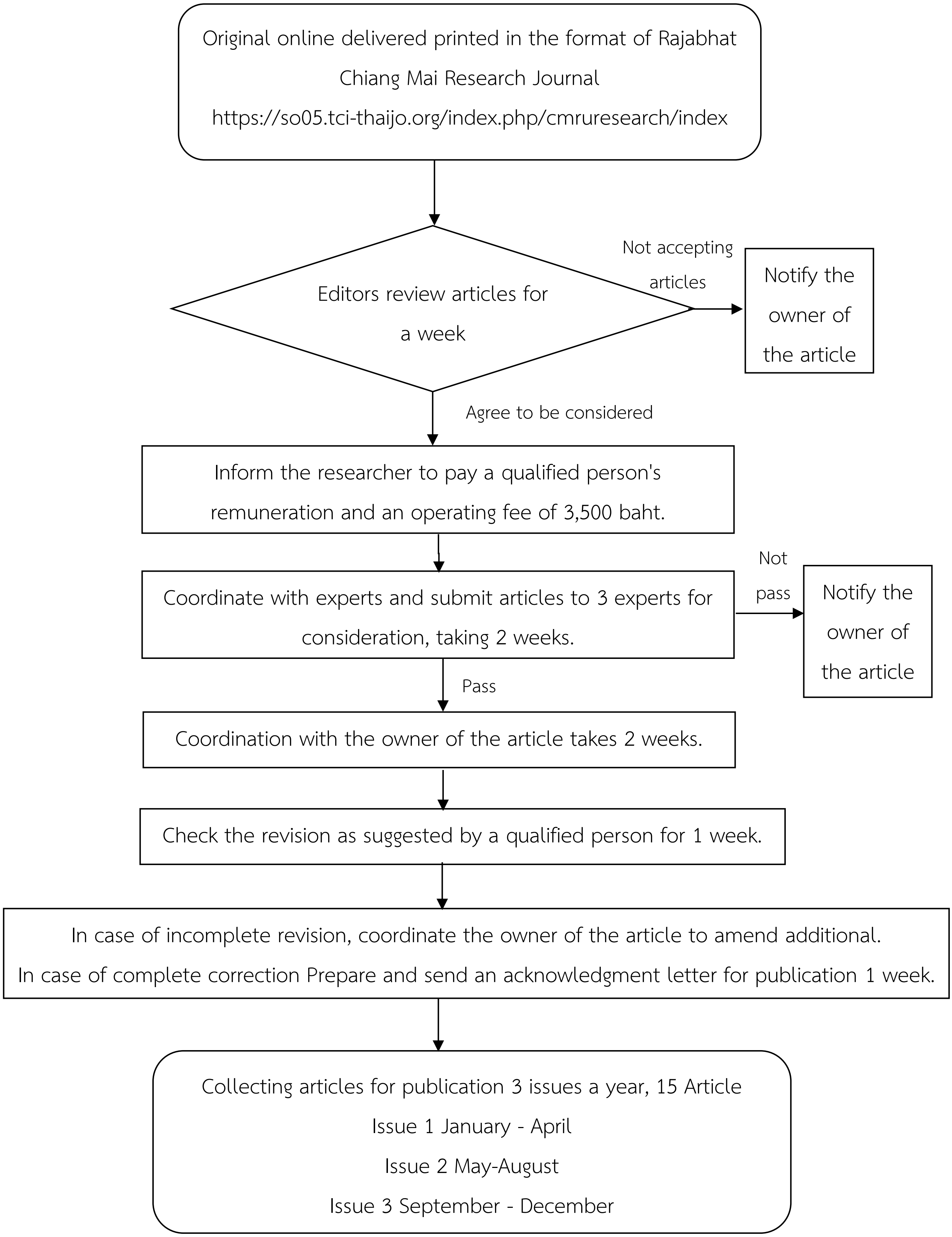

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