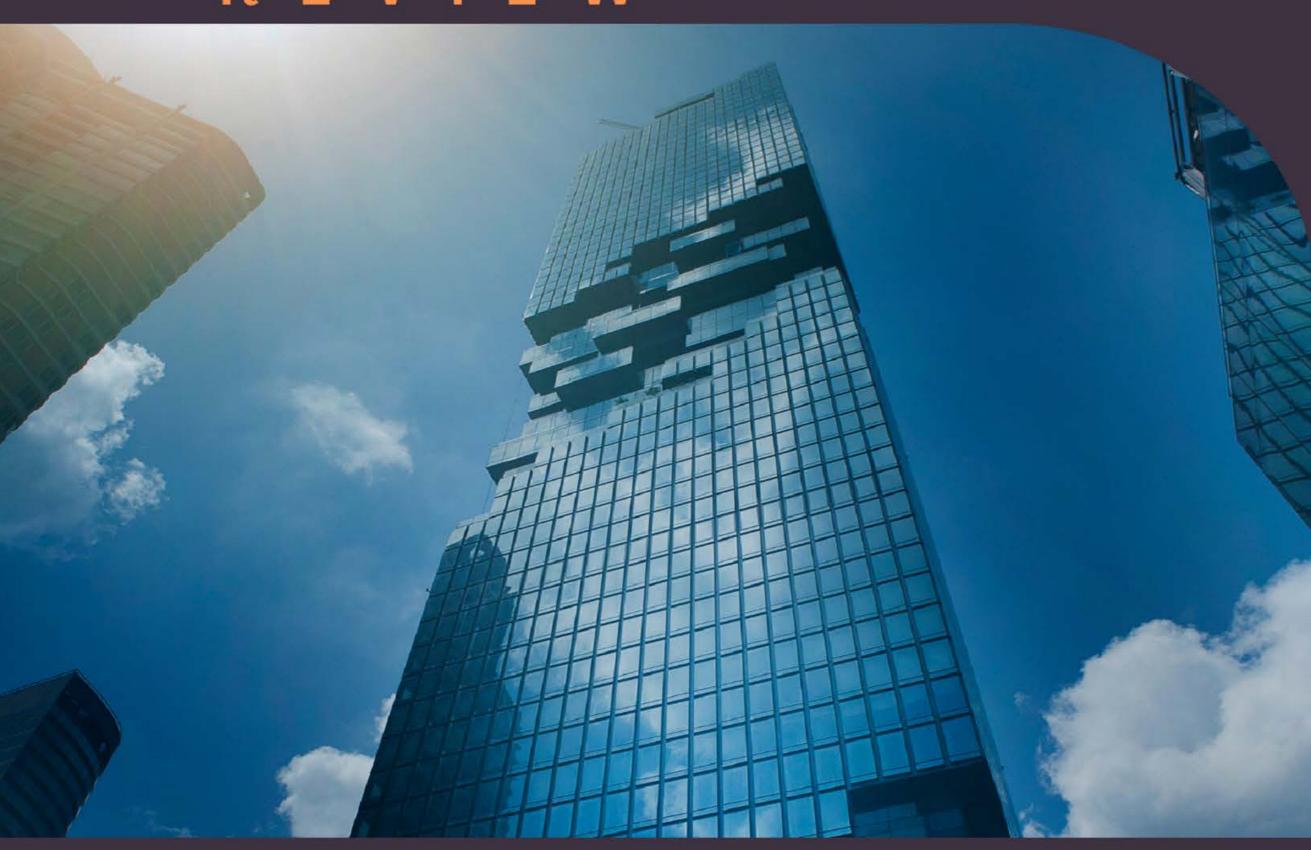


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RMUTT Global Business Accounting and Finance Review (GBAFR) has objectives as follows:

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- 3. To enhance academic ability of faculty members, academicians, researchers, executives, business persons, students and general people about creative researches and knowledge development for benefiting individual, business, industrial and social demands.
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Contact

Doctor of Philosophy Program Office, the Faculty of Business Administration,

Rajamangala University of Technology Thanyaburi (RMUTT)

39 Moo 1, Rangsit-Nakhonnayok Rd. Klong 6,

Thanyaburi, Pathum Thani, 12110 Thailand

Website: http://www.journal.rmutt.ac.th

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This journal published five research and academic papers, and one book review. In addition, each of the research and academic articles presented such interesting concepts, for employees' motivation, customer's satisfaction, financial planning for retirement, sustainability reporting and competitive advantage strategy, leading to creating new knowledge to the reader. Therefore, this journal is a channel disseminating the knowledge of business administration, accounting, and finance which related persons could apply it for further benefits.

Lastly, the editorial department and editorial board would like to considerably thank you for supporting and pushing forward this journal to occur and well accomplish. We are hopeful of your good cooperation and continuing support in the future.

Sukontip Wongpun, Ph.D. Editor-in-Chief

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OBSTACLE FACTORS THAT HINDER THE ADOPTION OF MOBILE PAYMENTS AMONG THE THAI ELDERLY

Wisit Rittiboonchai1

Krisada Chienwattanasook<sup>2\*</sup>

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**ABSTRACT** 

The objectives of this research were to study 1) the adoption of mobile payments among the

elderly when classified by personal factors; and 2) factors that hinder the adoption of mobile payments

among the Thai elderly. The researcher used a convenient sample selection method. Data was collected

from 570 Thai elderly people. Questionnaires were used as the research instruments and passed the

content validity test and the reliability test. The statistics used in the data analysis consisted of

percentage, mean, standard deviation, t-test, one-way analysis of variance, model analysis, and multiple

indicators through the analysis of structural equations model (SEM). The research results showed that

1) the adoption of mobile payments among the elderly. The findings show that: 1) different genders of

the elderly have statistically significant effects on mobile payment adoption at the .05 level; and 2)

barriers to using mobile payments are related to the payment system via mobile.

Because the elderly has two primary impediments to embracing mobile payments: usage

barriers and value barriers; therefore, research implications indicate that entrepreneurs should build trust

in using mobile payment systems as well as simplify functions to manipulate more usage.

**Keywords:** Adoption, Mobile Payment, Thai Elderly

<sup>1</sup> Faculty of Management Sciences, Nakhon Pathom Rajabhat University, Thailand. email: wisitson@webmail.npru.ac.th

<sup>2</sup> Faculty of Business Administration, Rajamangala University of Technology Thanyaburi, Thailand.

\*Corresponding author email: krisada\_c@rmutt.ac.th

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#### Introduction

Today, e-payment research is expanding. As wireless communication technology advances in leaps and bounds, it is noted that the trend toward mobile payments is accelerating. Mobile phones have become a vital tool for everyday transactions. The primary evidence is the increase in the number of mobile phone users, as well as the rapid development of mobile devices and network technology, which has resulted in the proliferation of services through a network of service providers in order to increase efficiency and create a competitive advantage.

Businesses with a policy to provide mobile phone-related services, such as mobile internet and mobile payments, are also growing in popularity. This exponential rise is driving researchers to examine how mobile phone transactions have influenced changes in lifestyle and behavior (Rahayu, 2022; Chaveesuk, Khalid, & Chaiyasoonthorn, 2022; Kumari & Lodha, 2021). These services assist users, so they do not have to spend time going to pay, transfer funds, or browse for goods and services.

The statistics from the study of mobile payments in Thailand indicate that, despite the rising use of e-Payments by Thais, mobile payments continue to grow in popularity. However, cash remains the predominant mode of payment. This is shown by the ratio of currency in circulation (CIC) to unadjusted currency. GDP remained steady at around 9.0 percent, however the percentage of e-Payments use to GDP grew exponentially (Bank of Thailand, 2020). The average annual growth rate for mobile payment service customers in Thailand is 22%, and it is anticipated that this trend will continue. Other significant causes include the Thai population's growing access to smartphones and tablets (Wilasri & Thongmak, 2015).

In lieu of cash, more than 73 percent of payments and financial transactions were done using the E-Payment system. The poll also revealed crucial facts, such as an increase in Mobile Payments confidence. People with a strong buying capacity are more likely to utilize E-Payment services than cash. Over sixty percent of respondents believe cash transactions are no longer secure and avoid carrying cash. In addition, 67 percent of respondents picked automated payments because they are more convenient and quicker (Getinvoice, 2019).

The COVID-19 scenario throughout the globe has sparked an online system that allows people to do financial transactions with just a cell phone. With the government's "Half Per Person" scheme, which needs a comprehensive mobile E-Payment system to be implemented (Srilert, 2020), and successive projects such as selling government lottery tickets through the application "Bao Tung" reflects that in the modern society after this, citizens can no longer avoid making payments through their mobile devices.

The interest of the research team in studying the variables that impede the adoption of mobile payments among Thai seniors led to the conduct of this study. The reason for this is because the elderly is the group with the largest buying power, but they also have the slowest learning of mobile payments owing to physical restrictions and unfamiliarity with technology due to the passage of time. This makes the elderly more prone than other age groups to "reject" or embrace the usage of such technologies.

#### Research objectives

- 1. To investigate the use of mobile payments among the elderly based on personal factors.
- 2. To study the factors that hinder the adoption of mobile payments among the elderly.

#### Literature review

#### Theory of innovation resistance

Ram and Sheth (1989: 5-14) presented the innovation resistance theory by pointing out the cause and barriers to the user's refusal to adopt the innovation are caused by change and the contradiction of the use of innovation. These obstacles can be divided into 2 types: functional barriers and psychological barriers. Functional barriers include usage barriers arising from innovation that inconsistent with the user, such as working procedures, methods of use, and user habits. The value barrier is that this innovation has economics value that are not suited to the potential given when compared to other innovations, and the risk barrier is the level of risk arising from the implementation of that innovation. The psychological barriers include traditional barriers that generally involve with the change in innovations used in everyday life and image barriers regarding the identity of the innovation, such as product type, brand or origin.

According to study conducted by Chin et al. (2013) and Elbadrawy and Azizz (2011), resistance to innovation is a hindrance to innovation. It is the preference of customers preferring current or established items over fresh developments. Including a predisposition for maintaining the same behavior as opposed to adapting it to innovation. Utilization barrier, value barrier, risk barrier, tradition barrier, and image barrier are barriers to the adoption of innovations. The usage barrier is the level of effort users of mobile payment services or an image that looks difficult to use. If a lot of effort is required, it will hinder its use. The value barrier compares the effectiveness of innovation to something else that can replace innovation. For example, if a mobile payment service is not offering a competitive price for its performance when compared to traditional payment methods such as cash, credit card, etc., users may not feel motivated to use the service.

Risk barriers are such as the risk of copyright infringement, theft, confidentiality, and transaction errors, etc. If the risk is greater, the acceptance will be less and the spread of innovation will take longer too. Traditional barriers are those where consumers are more satisfied with using traditional methods than switching to innovative risk-awareness. Image barrier refers to the perception that consumers think innovation has an image that is difficult to use (Chin et al. 2013; Teo et al., 2013)

#### Concepts and theories on technology adoption

Technological Acceptance Model (TAM) developed from the concept of Davis, Bagozzi and Warshaw (1989) is a theory that is popular today to describe the accepting behavior of individuals. In the meantime, RJOAS (2018) states that TAM used to describe and predict adoption and the use of information systems is to develop the theory of rational action by adding two core structures: perceived usefulness and perceived ease of use. Therefore, technology adoption includes: Perceived usefulness is

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the degree to which people believe that using technology will improve efficiency; 2) perceived ease of use is the degree to which some people believe that using technology requires no effort; 3) attitude towards behavior is a person's positive or negative feelings when using technology; 4) behavior intention is a person's desire to act; and 5) actual use is the action of a person who uses technology. Accordingly, this research was based on three key factors: 1) perceived usefulness, 2) perceived ease of use, and 3) attitudes towards behavior.

#### 1. Perceived Usefulness

Davis, Bagozzi and Warshaw (1989) defined perceived usefulness as the level of belief of potential users of a technology system that the technology is beneficial to them and is likely to increase efficiency in their work. Meanwhile, Udornchainit (2019) has defined perceived usefulness as the people perceive that the information systems, they use are beneficial and that if they use newly developed information systems they will improve their efficiency. The perception of benefits directly influenced the intention to use the information system. In addition, Manoi and Cholpaisal (2019) have defined perceived usefulness as the perception of an attitude, entertainment incentives, price perception of service, and familiarity with the use of electronic payment systems as well as Han et al. (2015) conducted a study on the impact of consumer trust and perceived benefits on mobile payment and online shopping site loyalty. The research has shown that when consumers recognize the benefits and trust in mobile payment systems, it will have a positive effect on consumer loyalty to mobile payments and shopping mall websites. The most encouraging factors are E-commerce user interface design, especially the transaction system. It can be concluded that the perceived usefulness refers to the belief level of the elderly that mobile payment technology is appropriate for their lifestyle. Whether buying goods and services online, paying bills instead of cash, can be used at any time-anywhere, and can access services conveniently and quickly.

### 2. Perceived Ease of use

Perceived ease of use is a level of belief and expectations of people who use information systems that such information systems are easy to learn. It doesn't take much effort to learn how to use the system or to understand it. Under the definition of easy and without difficulty or effort (Davis, Bagozzi & Warshaw, 1989). Additionally, Lobphai (2016) has given the meaning of perceived ease of use as the level of user belief expected of a system being developed and that it is intended to be easy to learn to use and does not require much effort. Perceived ease of use directly influenced the use of the system and indirectly influenced the use of the system through perceived benefit. The perception of ease of use is divided into 2 aspects, namely knowledge and the intention to use. Furthermore, Setiawan and Setyawati (2020) are conducting research on the influence of perceived ease of use on the intention to use mobile payments. The study found that perceived ease of use helps traders be wary and reexamine existing transactions. This ensures that the transaction is successful and that there is a notification on the merchant's mobile phone. In conclusion, the perceived ease of use means that elderly people perceive mobile payments as easy to learn, simple and convenient to use.

#### 3. Attitude towards behavior

User attitude is influenced by perceived usefulness and perceived ease of use of the system. This will result in the adoption of practical applications (Davis, Bagozzi & Warshaw, 1989). Kitisitthichai (2018) has given the meaning of attitude as feelings, thoughts, beliefs, and the tendency to express a person's behavior. It is a reaction by estimating likes or dislikes to affect a person's positive or negative response to the person, thing, or situation in that person's environment. It can be learned or managed using experience, and that attitude can be known or interpreted from what people say informally, from an official survey, or from that action. In the meantime, Manoi (2019) gave the definition of attitude towards behavior as the opinions of users towards technology, which has a direct relationship with the behavior of service users. Furthermore, Aslam, Ham, and Arif (2017) researched on Consumer Behavior Intentions towards Mobile Payment Services: An Empirical Analysis in Pakistan. The results found that awareness of compatibility, perceived usefulness, and personal norms are strong predictors of consumer attitudes towards mobile payment services. While the impact of safety awareness and simplified perception will be influenced by attitude, it is insignificant. Accordingly, it can be concluded that attitude towards behavior refers to feelings, thoughts, or beliefs of the elderly towards the acceptance of mobile payments that are good in a modern way and agree to use them.

From the review of all literature can be used to create a conceptual framework as follows.

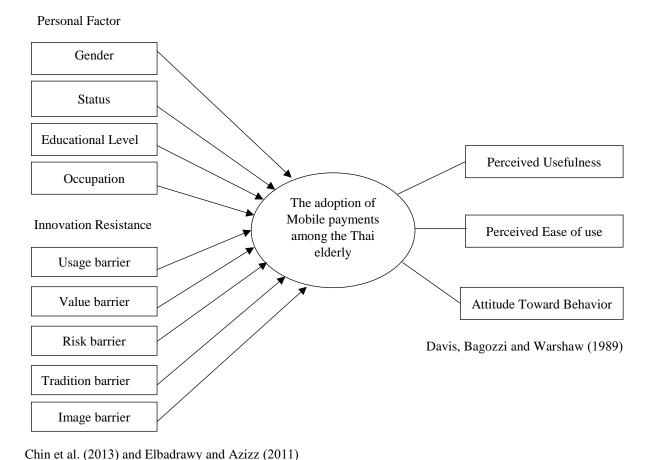


Figure 1 Conceptual framework

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#### Research methodology

The population is the elderly of Thai nationality aged 60-69 years and whose names are listed in the household registration for 6,843,300 people (Department of Provincial Administration, 2022) The researcher used the number of variables criteria of Hair et al. (2010), which proposed that the ratio of samples to the number of parameters or observable variables for a suitable measurement should be at least 30 samples per 1 observed variable. In this study, 19 variables were obtained, so a total of 570 samples were obtained from the sample, and collecting data uses simple random sampling.

The quality test of the questionnaire that passed the content validity test from 3 experts received a content validity value of 0.67–1.00, determined by the Cronbach alpha value. The sample group of 30 lecturers at Nakhon Pathom Rajabhat University, aged between 55 and 59 years. The anti-innovation questionnaire had a Cronbach alpha value of 0.86-0.90. The acceptance of mobile payments by elderly people had a Cronbach alpha value of between 0.78 and 0.81. The questionnaire was divided into three parts:

- 1. The personal characteristics of the respondents were multiple choice and closed-ended questions. Inquire about gender, status, education level, and occupation.
- 2. The anti-innovation contains questions about usage barriers (5 items), value barriers (5 items), risk barriers (5 items), traditional barriers (5 items), and image barriers (4 items) for a total of 24 questions. They were rated as 5-level estimation scale questionnaires. The questionnaire was revised in the opposite direction, with those assessing anti-innovation at the highest level.
- 3. The acceptance of mobile payments for the elderly includes questions about perceived usefulness (5 items), perceived ease of use (4 items), and attitude toward behavior (5 items), totaling 14 questions. They were characterized as a 5-level estimation scale questionnaire.

The statistics used in the data analysis consisted of percentage, mean, standard deviation, t-test, and one-way analysis of variance. The analysis model for multiple indicators multiple causes (MIMIC) using structural equation model (SEM).

The criteria for considering the mean, use the criteria of Best and Kahn (1998: 247) as the estimation criterion as follows:

Score 4.21-5.00 means the assessment results are at the highest level.

Score 3.41-4.20 means the assessment results are at a high level.

Score 2.61-3.40 means the assessment results are at a moderate level.

Score 1.81-2.60 means the assessment results are at a low level.

Score 1.00-1.80 means the assessment results are at the lowest level.

The results of the concordance analysis of the empirical data by using chi-square values ( $x^2$ ), Relative chi-square values ( $x^2/df$ ), Root Mean Square error of Approximation (RMSEA), Normed Fit Index (NFI, Comparative Fit Index (CFI), Goodness of Fit Index (GFI), and Standard Root of Mean Square Residual (SRMR) (Jöreskog, & Sörbom, 2012).

## Research results

The results showed that most of the respondents were female (52.63%), graduated from primary school (21.40%), and engaged in wage work (32.98%).

Table 1 Shows the average resistance to innovation

	Mean	SD.	Assessment
Usage barrier :UB	3.46	1.05	High
Value barrier :VB	3.25	0.93	Moderate
Risk barrier :RB	3.09	1.02	Moderate
Tradition barrier :TB	2.97	0.96	Moderate
Image barrier :IB	3.71	0.85	High
Total average	3.30	0.96	Moderate

The overall anti-innovation factor was assessed moderately. When the first three priorities are arranged, they include: image barriers, usage barrier, and value barrier, respectively.

Table 2 Shows the average elderly mobile payment acceptance rate

	Mean	SD.	Assessment
Mobile payments allow you to purchase a wide variety of products.	3.74	0.93	High
Mobile Payment Technology is suitable for your lifestyle.	3.68	0.85	High
Mobile payments allow you to efficiency buy goods and services	3.19	1.12	Moderate
online.			
Mobile payments make it possible for you to use it anytime,	3.78	1.17	High
anywhere.			
Mobile payments give you quick and easy access to our services.	3.57	0.99	High
Perceived Usefulness	3.59	1.01	High
You recognize that mobile payments are easy to learn.	3.54	1.07	High
You acknowledge that mobile payments are simple.	3.06	1.04	Moderate
You acknowledge that mobile payments are easy to use.	2.80	1.17	Moderate
You acknowledge that mobile payments are available 24 hours a day.	2.77	1.10	Moderate
Perceived Ease of use	3.04	1.09	Moderate
You feel good and accept mobile payments.	2.77	1.09	Moderate
You feel that mobile payments are a modern and you can follow.	3.07	1.24	Moderate
You are convinced that age is no barrier to mobile payments.	3.06	1.06	Moderate
You agree that older people need to be open to accepting mobile	3.04	1.10	Moderate
payments.			
You see that mobile payments can be trusted.	3.47	1.31	High
Attitude Toward Behavior	3.08	1.16	Moderate

The overall adoption of mobile payments among elderly people is range from moderate to high. When prioritized in the first three will consist of perceived usefulness, attitude towards behavior, and perceive ease of use accordingly.

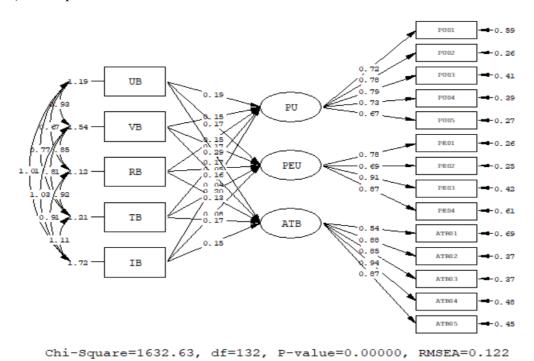
Research results for answering research objective number 1, the researcher tested with t-test and one-way analysis of variance. The results are as follows:

**Table 3** Elderly acceptance for mobile payment when classified by personal factors

Latent Variable	Gender	Status	Education	Occupation	
Latent variable	t-test One Wa				
Perceive usefulness	-2.11*	1.26	1.63	0.49	
Perceive ease of use	-0.33	0.69	0.89	0.25	
Attitude toward behavior	1.47	0.66	0.16	0.18	
Mobile Payment Acceptance	-2.05*	0.83	0.52	0.16	

Accepting mobile payments by elderly was found that there was a statistically significant difference by gender at the .05 level.

The results of the study factors that hinder the adoption of mobile payments among the elderly by the analysis model for multiple indicators multiple causes (MIMIC) using structural equation model (SEM) can be presented as follows.



**Figure 2** A model of barriers to the adoption of mobile payments for the elderly (model before adjustment)

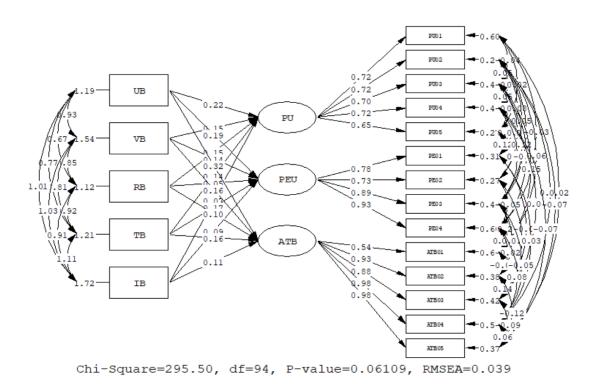


Figure 3 A model of barriers to the adoption of mobile payments for the elderly (model after adjustment)

**Table 4** Proving congruence with the empirical data of Confirmatory factor analysis (CFA)

Value	Criterion	Value before adjustment	Result of consideration	Value after adjustment	Result of consideration
P-Value	More than 0.05	0.00	×	0.06	$\sqrt{}$
$x^2/df$	Less than 5	12.37	×	3.14	$\checkmark$
RMSEA	0.03-0.08	0.122	×	0.039	$\checkmark$
NFI	0.9 or more	0.95	$\sqrt{}$	0.98	$\checkmark$
CFI	0.9 or more	0.95	$\checkmark$	0.98	$\checkmark$
GFI	0.9 or more	0.82	×	0.95	$\checkmark$
SRMR	Less than .05	0.13	×	0.03	$\checkmark$

**Note:**  $\sqrt{ }$  means passing the index test result criteria used to verify the consistency and harmony of the model with the empirical data.

The results of the index analysis used to verify the coherence and harmony of the model with the empirical data using confirmatory factor analysis (CFA). The results of the assessment of the harmony of the model revealed that  $x^2 = 295.50$ , df = 94,  $x^2/df = 3.14$ , RMSEA = 0.039, NFI = 0.98, CFI = 0.98, GFI =0.95, SRMR = 0.03. The index shows that the adjusted model has better empirical consistency because it is consistent with sufficient empirical data.

**Table 5** Factor models that hinder the adoption of mobile payments among elderly.

	Perce	Perceive usefulness		Ease of use		Att. toward		rd	
	β	SE.	t	β	SE.	t	β	SE.	t
Usage barrier :UB	0.22	0.04	5.19	0.19	0.04	5.09	0.32	0.03	9.93
Value barrier :VB	0.15	0.04	4.36	0.14	0.03	4.34	0.16	0.02	6.65
Risk barrier :RB	0.15	0.05	3.27	<u>0.05</u>	<u>0.04</u>	<u>1.16</u>	0.10	0.03	3.25
Tradition barrier:TB	0.14	0.05	2.71	0.17	0.05	3.77	0.16	0.03	4.88
Image barrier :IB	<u>0.07</u>	<u>0.04</u>	<u>1.74</u>	0.09	0.04	2.54	0.11	0.03	4.18
	]	$R^2 = 0.5$	1	]	$R^2 = 0.5$	1	]	$R^2 = 0.8$	2

Factors that hinder the adoption of mobile payments among the elderly in each aspect, are portrayed as follow: 1) Perceived benefits: consisted of usage barrier, value barrier, risk barrier, and traditional barrier; 2) Perceived ease of use: include usage barrier, traditional barrier, value barrier, and image barrier; 3) Attitudes towards behavior: include usage barrier, value barrier, traditional barrier, image barrier, and risk barrier respectively. The research results concluded that usage barrier is one of the main barriers to the adoption of mobile payments among the elderly.

The results of the analysis of the confirmation elements contained in the barriers to the adoption of mobile payments among the elderly found that:

- 1. Perceive benefit: gain weight factor in allow to purchase a wide variety of products, suitable for lifestyle, and can use it anytime anywhere.
- 2. Perceive ease of use: gain weight factor in recognizing that mobile payments are convenience of use.
- 3. Attitude toward behavior: gain weight factor in agreeing that elderly need to be open to accepting mobile payments and have opinion that mobile payments can be trusted.

#### **Summary and discussion**

- 1. Accepting mobile payments by elderly was found a statistically significant gender difference at the .05 level, consistent with the research by Kumari and Lodha (2021). The research study on the impact of self-efficacy and social influence on the adoption of electronic payments among Indian millennials. The result found that the adoption of electronic payments among the younger generation Millennials have a statistically significant gender difference. Whereas there were no statistically significant differences in the factors of status, education, and occupation. The findings are in conflict with the research of Chanton, Chimmasangkana and Rittiboonchai (2021), which found that different education, occupation, and income affect the accept to use of different technologies.
- 2. Usage barrier is one of the main barriers to the adoption of mobile payments among the elderly. This is consistent with the research of Wilasri and Thongmak (2015) in a study on the influence of factors that hinder payment acceptance via mobile device. The results indicated that the barriers that affect the characteristics of different anti-innovators are: usage barrier, traditional barrier, and risk barrier, respectively. While Aldammagh, Abdeljawad and Obaid (2021) found that usage barrier will

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cause customers to lack confidence in safety. A technology adoption model that combines the theory of a planned behavior with trust and perceived risks will be the game change for financial organizations in terms of remote banking.

- 3. One of the hurdles in perceived ease of use and attitudes toward behavior is image barriers, which relates to the view that customers believe innovation has a difficult to use image. The findings support Bao and Pan (2021) findings that the user experience of utilizing mobile payment systems is one of the acceptability hurdles for the elderly. The basic usage needs of elderly users in front-end development, actively obtain users' operating experience and satisfaction after the product is launched, evaluate the difference between their operating perception and expectation based on elderly users' feedback on the overall service experience, and improve the payment platform based on the findings, in order to provide elderly people with a comfortable, convenient, and friendly way to use mobile payments (Bao & Pan, 2021).
- 4. Traditional barriers which is part of psychological barriers is still one of the barriers in all dimensions of technology acceptant model in this study. Differences in individual physiological development can affect the acceptance of mobile payment platforms, according to Bao and Pan (2021). Because of cognitive degradation, certain older adults with neurodegenerative disorders may have demands for existing mobile payment services.

#### **Contributions**

- 1. The results showed that for the elderly, there was no difference in personal attributes in accepting mobile payments. Except for gender differences which elderly female will prioritize mobile payment acceptance higher than males especially the recognition of the benefits of using such devices.
- 2. Usage barrier is the most effect to TAM in all dimensions (Perceive Benefit, Perceive Ease of use and Attitude Toward Behavior) so banks should improve application to easier to use. Entrepreneurs interested in elderly customers need to avoid innovation inconsistent with elderly users by giving importance to work procedures, methods of use, and user habits.
- 3. The stakeholder, for example, banks should develop learning channels on the use of appropriate technology because the elderly realized that mobile payments could make them buy a variety of products and are essential to their lifestyle. Moreover, the elderly customers know the impact of the world changing and ready to learn.
- 4. Usage barriers and value barriers are two major obstacles for the elderly to accepting mobile payments. Therefore, creating trust in elderly is the necessary for entrepreneurs to overcome these obstacles and facilitate the elderly customers to willingness use mobile payments.

#### **Suggestion for Further Research**

1. This research collected data from elderly people in the age range of 60-69 years, who were the first elderly group who were able to lead a normal life on their own. Those work does not cover the

elderly in the next period, namely the group 70-79 years and the group 80 years and over. If those who are interested in collecting more comprehensive information may expand the research scope to such groups.

- 2. This research focuses only on quantitative research. Those who are interested may continue to do qualitative research in order to get more in-depth information by using in-depth interviews. or make a group conversation.
- 3. The research included only the elderly, if interested researcher will continue to study and develop the model for people of different ages or generation, it should expand the boundaries of knowledge even more.

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FACTORS AFFECTING PURCHASE INTENTION OF BANANA
POWDER MIXED WITH STEVIA IN BANGKOK AND
PATHUM THANI PROVINCE

Sutima Sornjakr<sup>1</sup>
Nuttapon Srisawat<sup>2</sup>
Tarakorn Pongpanya<sup>3</sup>
Panisa Mechinda<sup>4\*</sup>
Purinat Yamakanith<sup>5</sup>

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#### **ABSTRACT**

The objectives of this research were to study 1) demographic characteristics affecting purchase intention of instant banana powder mixed with stevia and 2) marketing strategies affecting purchase intention of instant banana powder mixed with stevia among consumers in Pathum Thani Province. It is quantitative research using online questionnaire. The total sample size was 209 selected by purposive sampling. The statistics employed were Percentage, Mean, Standard Deviation, One–Sample t-test, Independent Samples t-test. The results showed that demographic characteristics of people who like to eat instant banana powder live in Bangkok, Pathum Thani and surrounding provinces. Most of them are female (62.07%), under 24 years old (47.78%) and single (48.77%). They have their family income are 18,001-50,000 baht (42.80%). With regards to hypothesis testing, the results indicated that demographic characteristics did not affect consumers' purchasing intention of instant banana powder mixed with stevia. The reason could be the fact that banana power is a commodity product. Thus, all consumers regardless of their gender want for their health. Furthermore, demographic characteristics (income) did not affect consumers' intention to buy because the price of instant banana powder is affordable for both high and low income consumers.

Keywords: Instant Banana Powder, Purchase Intention, Consumption Behavior, Stevia

<sup>&</sup>lt;sup>1234</sup> Faculty of Business Administration, Rajamangala University of Technology Thanyaburi, Thailand.

<sup>\*</sup>Corresponding author email: panisa\_m@rmutt.ac.th

#### Introduction

Bananas are considered one of the main crops in this fascinating group of horticultural crops. It is a fruit that Thai people have known for a long time, along with Thailand originating in Southeast Asia. Humans are known to consume food widely. Bananas are one of the most important fruit trees in the world's fruit market, grown in more than 130 countries and planted as a tree in fences or around other planting plots. Kluai Nam Wa has better qualities than other types of bananas and other planting plants in many respects, such as being easy to grow, easy to bear fruit, easy to find varieties, easy to sell, starting to have a higher price, and can also be processed as well (Kham Ai, 2011).

According to Thai herbal textbooks, Kluai Nam Wa can be used to make medicine both raw and cooked. In particular, raw bananas contain tannins, which are astringent substances that can inhibit the growth of bacteria as well. Therefore, protecting the stomach wall and the intestines from germs and spicy things also helps to cure diarrhea (Channgao, 2018). The history of the former Fungkajorn Garden began as a single farming practice but later turned to mixed farming, also known as organic farming without using any chemicals. The garden has a total area of 20 rai and sells organic vegetables, processed food products, namely: 1) Sunbathed Banana and 2) Raw Banana Powder. The problem with Fungkajon Garden is that it is not well known among consumers. The package of instant banana powder is of poor quality and the label is not up to standard. Instant Banana Powder is a new herb that has emerged to help relieve gastritis, gastroesophageal reflux disease, gastric ulcer coating, and diarrhea. It might not inhibit these symptoms but at least cause gastric symptoms to be cured and reduce the need to rely on antibiotics too much (Sirikan, 2020).

From the above information, the study factors, which are product, price, distribution channel, and marketing promotion, that will affect the intention to buy instant banana powder mixed with stevia and create brand awareness, in order to use the information obtained as a guideline for enterprise entrepreneurs to develop or improve marketing strategies in accordance with the needs and behavior of consumers.

#### Research objectives

- 1. To study demographic characteristics affecting consumers' purchasing intention of instant banana powder mixed with stevia in Pathum Thani province.
- 2. To study marketing strategies that affect consumers' purchasing intentions of instant banana powder mixed with stevia in Pathum Thani province.

# Research hypothesis

Hypothesis 1: Demographic characteristics (gender) affecting consumers' purchasing intention of instant banana powder mixed with stevia in Pathum Thani province are different.

Hypothesis 2: Demographic characteristics (income) affecting consumers' purchasing intention of instant banana powder mixed with stevia in Pathum Thani province are different.

#### **Conceptual Framework**

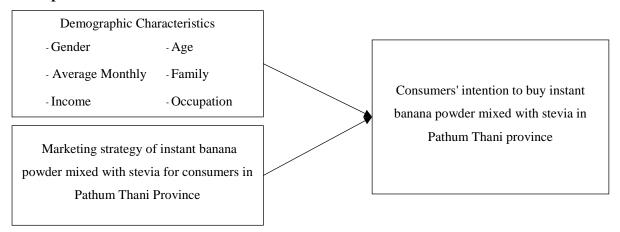


Figure 1 Conceptual framework

#### Literature review

## **Demographic theory**

Ngamlamom (2015) referred to demographic characteristics as the diversity of a person's background, including gender, age, status, body structure, seniority at work, etc. They will show the history of the individual from the past to the present. In various departments or organizations that consist of employees or personnel at various levels, the differences in behavior and expression are caused by differences in the demographic or background of the individual. Meanwhile, Sereerat (1995) gave the definition of population characteristics as the demographic that consists of gender, age, family status, education level, occupation, and income. It is an important aspect that helps determine the target market.

#### **Purchase intention theory**

Apichayasakul (2015) referred to what marketers can study such as consumer brand loyalty or repeat purchase behavior of consumers. Brands can be determined based on the order of brand selection, preference, purchase proportion, and expected situational factors. Meanwhile, Das (2014) stated that purchase intention is an attempt by consumers to purchase goods and services. It depends on many factors such as brand, supplier, and time of purchase. It is an enjoyable experience, such as satisfaction. Purchase intention directly affects the volume of purchases of goods and services from distributors. The purchase intention of the consumer usually occurs after the consumer is aware of the usefulness and the value of products and services. In addition, purchase intention influences outcome of purchasing behavior through the purchase volume.

#### **Marketing Strategy Theory**

Kotler (1997) said that marketing strategies means the basis method on which a business unit is used to achieve its marketing objectives. It consists of making decisions in the target market, product positioning, marketing mix, and the level of marketing expenses. From this definition, it indicates a mixture of marketing strategies, which consists of steps, namely, decision-making in the target market, which will decide the correct target, size, structure and behavior of the target market. Those information

must be analyzed first and then the market segmentation is performed to determine the target market selection and analyze product positioning, then determine the marketing mix and costs marketing to suit that target market.

#### Related research

Petcharasiri (2017) conducted a research study on the herbal use behavior of people in Khao Khitchakut district, Chanthaburi province. The behavior of using medicinal herbs in the sample group was used infrequently in descending order. The herbs are used to treat the respiratory system and gastrointestinal tract, heal the skin, and for urinary tract disease. The use of herbal sachets emphasizes the convenience of using them, reasonable price, and satisfaction with herbs, respectively. The proposal of the people in Khao Khitchakut district is to conserve herbs and establish an herbal club to generate income for people in the community, to publicize the wisdom of using herbal sachets, and to arrange for herbs to be listed in the list of common household drugs, respectively.

The research result also corresponds to MuangChang (2016), which conducted a study on factors related to the behavior of using herbs for self-care of people in Mae Chai district. The study results found that most of the people used herbs for self-care at a low level, 87.7 percent, with 24.53% of the respondents choosing herbs to treat or relieve respiratory symptoms, followed by herbs for treatment or relief of other illnesses such as gastro-intestinal symptoms, skin manifestations, and urinary tract symptoms, respectively. Individual factors were congenital disease and educational level. It was statistically significant at the .05 level. The leading factors were knowledge about the use of herbs in self-care and attitudes towards using herbs for self-care. This was statistically significant at the .05 level. The contributing factor is that the channels for obtaining herbs were statistically significant at the .05 level. At the .05 level, special media coverage and media coverage about the use of herbs were statistically significant.

#### Research methodology

This research uses a combination between qualitative research by using in-depth interviews and quantitative research by using a questionnaire to collect data from people who have bought or eaten herbs to relieve gastritis. A total of 209 people of sample group were analyzed by using statistics: 1) descriptive statistics: frequency, standard deviation, percentage; and 2) inferential statistics, reference statistics: One Sample t-test, Independent Sample t-test as follows:

The target population is male and female aged 18 - 74 years, live in Bangkok and Pathumthani. A person who has bought or eaten herbs to relieve gastritis symptoms or gastroesophageal reflux disease by using the formula for calculating the sample in the case of unknown population. The error was 7% and the variance was 50% and the confidence level was 95% as follows.

$$n = \frac{Z^2(PxQ)}{e^2}$$

$$= \frac{1.96^{2}(50*50)}{7^{2}}$$

$$= \frac{3.84(50*50)}{7^{2}}$$

$$= \frac{9,600}{49}$$

$$= 195.92$$

As a result, the sample size was approximately 196. However, in order to achieve the complete and valid data, the researchers distributed 220 online questionnaire (or 10% additional to the required sample size). This resulted in valid 203 sample.

#### Research results

Objective 1: To study demographic characteristics affecting consumers' purchasing intention of instant banana powder mixed with stevia in Pathum Thani province.

### **Demographic Characteristics**

The general characteristics of the respondents who have bought or eaten herbs to relieve gastritis are as follows: Most of them live in Bangkok (69.95%). In terms of gender, most of them are female (62.07%), male (37.93%). In terms of age, most of them are Gen Z (under 24 years old) (47.78%), Gen Y (aged 24 - 39 years) (28.57%), Gen X (aged 40-55 years) (19.21%) and the Baby Boomer group (age 56-74 years) (4.43%). In terms of status and household characteristics, most of them were single, (48.77%), single married (19.21%), and divorced (0.99%).

In terms of education, most of them had a bachelor's degree or equivalent (59.61%), a bachelor's degree (30.54%), and a higher bachelor's degree (9.85%). With regards to occupation, most of them were students (45.81%), business owners (24.63%), company employees (18.72%), government or state enterprise officers (7.88%), and others (2.96%). In terms of household income/month, most of them earned between 18,001-50,000 baht (42.80%), 18,000 baht or less (39.60%), 50,001-85,000 baht (12.20%), and 85,001 baht or more (5.40%), respectively.

# **Hypothesis Testing**

# Hypothesis 1: Consumers who have different demographic characteristic (gender) have different purchase intention instant banana powder mixed with stevia.

**Table 1** presents the analysis of consumers' purchasing intention of instant banana powder mixed with stevia in Pathum Thani Province classified by demographic characteristics (gender) using Independent Samples t-test statistics.

<b>Factors Affecting Intention to</b>	Gender	N	Mean	SD	F	Sig.	t	df	Sig.
Buy Instant Banana Powder									(2-tailed)
1. Benefits of instant banana	female	126	4.12	.796	4.377	.038	512	201	.610
powder	male	77	4.18	.928			493	142.231	.623

**Table 1** presents the analysis of consumers' purchasing intention of instant banana powder mixed with stevia in Pathum Thani Province classified by demographic characteristics (gender) using Independent Samples t-test statistics. (Cont.)

<b>Factors Affecting Intention to</b>	Gender	N	Mean	SD	F	Sig.	t	df	Sig.
Buy Instant Banana Powder									(2-tailed)
2. Instant banana powder mixed	female	126	4.15	1.012	.121	.729	216	201	.829
with stevia makes you want to	male	77	4.18	.956			219	167.928	.827
buy.									
3. Attractive packaging	female	126	4.45	.776	.588	.444	505	201	.614
	male	77	4.51	.681			521	176.741	.603
4. Attractive labels and logos	female	126	4.52	.735	2.491	.116	.755	201	.451
	male	77	4.43	.895			.720	137.339	.472
5. The price of the product is	female	126	3.46	1.171	.238	.626	-1.428	201	.155
reasonable.	male	77	3.70	1.159			-1.432	161.992	.154
6. There is a service to order	female	126	3.67	1.011	.379	.539	713	201	.477
instant banana powder mixed	male	77	3.78	1.021			711	159.470	.478
with stevia online via Facebook									
Fan page.									
7. There are various promotions	female	126	4.25	.903	.620	.432	.369	201	.713
such as buy 10 times get 1 jar of	male	77	4.21	.800			.380	175.597	.705
raw banana powder free, but if									
you buy 3 jars or more, free									
delivery is available.									

According to Table 1, all significant values were greater than .05. Thus, it can be concluded that female and male consumers had no difference in mean valves.

**Hypothesis 2:** Consumers who have different demographic characteristics (income) have different purchase intention of instant banana powder mixed with.

**Table 2** Presents the analysis of consumers' purchasing intention of instant banana powder mixed with stevia in Pathum Thani Province classified by demographic characteristics (income) using Independent Samples t-test statistics.

Factors Affecting	income	N	Mean	SD	Levene's Test fo	or Equ	ality	T-te	st for, Eq	uality of
Intention to buy Instant					of Varia	nces			Mean	ıs
Banana Powder						F	Sig.	t	df	Sig.
										(2-tailed)
1. Benefits of instant	0 - 50,000 baht	168	4.14	.840	Equal variances	.617	.433	219	201	.827
banana powder.					assumed					
	> 50,001 baht	35	4.17	.891	Equal variances			211	47.439	.834
					not assumed					

**Table 2** Presents the analysis of consumers' purchasing intention of instant banana powder mixed with stevia in Pathum Thani Province classified by demographic characteristics (income) using Independent Samples t-test statistics. (Cont.)

Factors Affecting	income	N	Mean	SD	Levene's Test f	Levene's Test for Equality			T-test for, Equality of			
Intention to buy Instant					of Varia	nces			Mean	ıs		
Banana Powder						F	Sig.	t	df	Sig.		
										(2-tailed)		
2. Instant banana powder	0 - 50,000 baht	168	4.18	.943	Equal variances	5.168	.024	.504	201	.615		
mixed with stevia makes					assumed							
you want to buy.	> 50,001 baht	35	4.09	1.197	Equal variances			.432	43.217	.668		
					not assumed							
3. Attractive packaging.	0 - 50,000 baht	168	4.45	.757	Equal variances	1.553	.214	865	201	.388		
					assumed							
	> 50,001 baht	35	4.57	.655	Equal variances			952	54.698	.346		
					not assumed							
4. Attractive labels and	0 - 50,000 baht	168	4.48	.789	Equal variances	.000	.993	024	201	.981		
logos					assumed							
	> 50,001 baht	35	4.49	.853	Equal variances			023	46.893	.982		
					not assumed							
5. The price of the	0 - 50,000 baht	168	3.55	1.131	Equal variances	2.953	.087	.049	201	.961		
product is reasonable.					assumed							
	> 50,001 baht	35	3.54	1.358	Equal variances			.044	44.345	.965		
					not assumed							
6. There is a service to order	0 - 50,000 baht	168	3.73	.989	Equal variances	.924	.338	.366	201	.715		
instant banana powder					assumed							
mixed with stevia online via	> 50,001 baht	35	3.66	1.136	Equal variances			.334	45.357	.740		
Facebook Fan page.					not assumed							
7. There are various	0 - 50,000 baht	168	4.20	.845	Equal variances	2.849	.093	.863	201	.389		
promotions such as buy					assumed							
10 times get 1 jar of raw	> 50,001 baht	35	4.06	1.162	Equal variances			.702	41.796	.487		
banana powder free, but if					not assumed							
you buy 3 jars or more,												
free delivery is available.												

According to Table 2, all significant were greater than .05. Thus, it can be concluded that there were no differences in mean values between consumers who had income less than 50,000 baht and consumers who had income higher than 50,000 baht.

Objective 2: To study marketing strategies that affect consumers' purchasing intentions of instant banana powder mixed with stevia in Pathum Thani province.

**Table 3** marketing strategies that affect buying Intention

Marketing strategies that affect purchase intention	$\overline{\mathbf{X}}$	SD	Interpret	Order
Product				
Benefits of instant banana powder	4.14	0.847	agree	3
2. Instant banana powder mixed with stevia makes you want to buy.	4.16	0.989	agree	2
3. Attractive packaging	4.47	0.740	strongly agree	1
4. Attractive labels and logos	3.35	1.199	strongly agree	4
Price				
5. The price of the product is reasonable.	3.55	1.169	agree	1
Distribution				
6. There is a service to order instant				
banana powder mixed with stevia	3.71	1.013	agree	1
online via Facebook Fan page.				
Marketing promotion				
7. There are various promotions such as				
buy 10 times get 1 jar of raw banana	<i>1</i> 10	0.005	0.000.0	1
powder free, but if you buy 3 jars or	4.18	0.905	agree	1
more, free delivery is available.				

From Table 3, the results of the analysis of marketing strategies that affect consumers' purchasing intentions of instant banana powder mixed with stevia in Pathum Thani province, it is found that product marketing strategies (the packaging is attractive) were at the level of strongly agree level with an average value of 4.47.

The results of an analysis of how marketing strategies affected consumers' plans to buy instant banana powder mixed with stevia in Pathum Thani province showed that the price marketing strategy (the price of the product was right) was at the agreed level with an average value of 3.55.

The results of the analysis of marketing strategies affecting consumers' purchasing intentions of instant banana powder mixed with stevia in Pathum Thani province revealed that the distribution marketing strategy (there was an ordering service for instant banana powder mixed with grass. Wan Online via Facebook Fan Page) was at the level of agreement with an average of 3.71.

The results of the analysis of marketing strategies affecting consumers' purchasing intentions of instant banana powder mixed with stevia in Pathum Thani province found that marketing strategies in terms of marketing promotion (there were various promotions such as buy 10 times and get 1 jar of raw banana powder free, but if you buy 3 jars or more, free delivery is provided) were at the agree level with an average of 4.18.

#### Discuss the results of the research

Regarding the first objective, the aim was to determine whether demographics had any influence on the purchase intention of the consumer's instant banana powder mixed with stevia in Pathum Thani Province. The study found that most consumers lived in Bangkok (70%), most of them were female (62%), and the age of Gen Z (under 24 years) was 47.8%. They had a bachelor's degree or equivalent (59.6%). This is consistent with the findings of Yamphan (2016), who conducted a study on the factors influencing Doi Kham brand processed vegetables and fruits purchase decisions. The research found that most of the respondents live in Bangkok and the age range is between 20-24 years, with bachelor's degrees, status as students, For the characteristics of the household, single (48.8%), student (45.8%), which is consistent with the research of Kaewchinda et al. (2021), which conducted a study on marketing strategies that affect the intention to buy powdered fish products. It was found that most of the respondents were single (64.5%) and most of them were students (27.7%).

From hypothesis 1, demographic characteristics (gender) affecting consumers' purchasing intention of instant banana powder mixed with stevia in Pathum Thani province were different. Mean difference test of factors affecting purchase intention of stevia instant banana powder classified by demographic characteristics (gender), it was found that factors 1, 2, 3, 4, 5, 6, 7 had the sig. values of.610,.829,.614,.451,.155,.477, and .713 respectively, which was greater than .05, indicating that the average of factors affecting the purchase intention of the stevia instant banana powder of males and females was no differences. This is consistent with the research by Na Nakorn (2019), who conducted a study of the environment and motivation affecting efficiency improvement in a coconut processing company organization in Thailand. When classified by gender, position, and income, there were no statistically significant differences.

From the second hypothesis, demographic characteristics (income) affecting consumers' purchasing intentions of instant banana powder mixed with stevia in Pathum Thani province were different. Mean difference test of factors influencing Stevia instant banana powder purchase intention classified by demographic characteristics (income). It was found that factors 1, 2, 3, 4, 5, 6, 7 had Sig. values of .827, .615, .388, .981, .961, .715, .389, respectively, which is greater than .05, indicating that the average of factors affecting the purchase intention of the Stevia instant banana powder of income 0 - 50,000 baht and income of 50,001 baht or more, comparing between income 0 - 50,000 baht and income of 50,001 baht or more, no difference. This is consistent with the research of Sasarom and Prapanpot (2019), who conducted a study on marketing factors affecting the decision to buy processed gourami under packaging in the market of Bang Phli Yai NaiTemple, Bang Phli District, Samut Prakan Province and found that consumers with different incomes had no statistically significant difference in opinions on the importance of marketing mix affecting purchasing decisions.

The second objective is to study marketing strategies that affect consumers' intentions to buy instant banana powder mixed with stevia in Pathum Thani province. The study found that the product marketing strategy was at a strongly agree level with the attractive packaging (average of 4.47). The

price point was at the agree level, which means that the product's price is appropriate. The distribution was at the agreed level, which is an online ordering service for instant banana powder mixed with stevia via the Facebook Fan page (average of 3.71). The marketing promotion was at the agree level, which is there were various promotions such as buy 10 times get 1 jar of raw banana powder free, but if you buy 3 jars or more, free delivery is available (average of 4.18). This result is consistent with the research of Dinprapha (2006), who studied the factors influencing the decision to buy green products of working people in the Pathumwan area, Bangkok, and concluded that personal internal factors are related to marketing factors (product). The sample group gave the highest importance in terms of price and promotion. The distribution channel is of medium importance and influences the purchase decisions of processed products the most.

#### Recommendations

- 1. In this study, 209 samples were used. For further research should increase the number of samples to at least 400 people to make the results of the research more accurate.
- 2. In this research, most of the respondents are Gen Z (47.3%) and Gen Y (28.8%). Therefore, the use of this data must be cautious as the Gen Z group may not have the same product preferences as other groups such as Gen X or Baby boomers. To increase generalizability, future research should collect data more form Gen X or Baby boomers.

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INFLUENCING DIGITAL MARKETING COMMUNICATION OF CRYPTOCURRENCY-BASED TRANSACTION OF YOUNG INVESTORS

> Wichyada Tanomchat<sup>1</sup> Suwat Chimasangkanan<sup>2</sup> Wisit Rittiboonchai <sup>3\*</sup>

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## **ABSTRACT**

The objectives of this research were to study: 1) the cryptocurrency transaction decisions of young investors when classified by personal factors; and 2) the influence of digital marketing communications that affect the decision to make transactions via digital currency of young investors. The researcher used a convenient sample selection method to collect data from 600 young investors, using questionnaires that passed the content validity test. The statistics used in the data analysis consisted of percentage, mean, standard deviation, t-test, and one-way analysis of variance. Multigroup structural equation modeling (SEM) is used to capture the complex interrelationships between multiple indicators. The findings revealed that: 1) the decision to conduct cryptocurrency transactions was classified by personal factors with a statistically significant level of .05; and 2) digital marketing communications influenced the decision to conduct cryptocurrency transactions of the new generation of investors in the first two areas, namely community and co-creation.

Keywords: Digital Marketing, Digital Currency, Transaction Decision

<sup>&</sup>lt;sup>1</sup> Faculty of Tourism and Management, Burapha University, Thailand. email: wichyada@buu.ac.th

<sup>&</sup>lt;sup>2</sup> Faculty of Management Science, Nakhon Pathom Rajabhat University, Thailand.

<sup>&</sup>lt;sup>3</sup> Faculty of Management Science, Nakhon Pathom Rajabhat University, Thailand.

<sup>\*</sup>Corresponding author email: wisitson@webmail.npru.ac.th

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#### Introduction

At present, the rapid development and operation of the Internet has become one of the most important technologies in the world. Due to its great influence on human life (Christina, Fenni & Roselina, 2019), coupled with the problem of emerging diseases, has affected the lives of all sectors. The new way of life makes people live more at home and work from home, including doing business and investments, which have changed from the aforementioned conditions.

Digital Marketing Communications started to play a bigger role in new transactions. This is because the impact of digital transformation is driven by technological advancements and changing customer needs. Marketers have therefore begun to focus on the digital marketing communication model. Peter and Vecchia (2021) found that more than a third of the organizations in Switzerland are increasing their investment in digital marketing communications by 11 percent. Yongvongphaiboon and Chantamas (2021) studied the influence of digital marketing communications on intercompany productivity and customers in Thailand. The study suggests that digital marketing communications and customer relationship management (CRM) will create trust in the transaction. It also has a positive and significant relationship with the company and customer performance.

Ouparamai and Phongthanapanich (2021) presented the results of their research that determined distribution channel strategies and digital marketing communications that would benefit the business operations to survive and sustainably. Therefore, if businesses can combine these two marketing mixes perfectly, they will support each other so that businesses can deliver their products or services to consumers correctly, completely, in a timely manner, and meet the needs of the target consumers. Consumers have changed after living under the COVID-19 pandemic for a period of time. They are increasingly exposed to new digital technologies and services, including online platforms, that focus on convenience and safety. Marketing that does not take the changes in consumer behavior into account is likely to affect transaction risk.

Financial products are things that can be traded with the objectives of saving money, investing, and managing risks. Today's world has changed dramatically in many aspects since entering the digital era. The cashless society is about to happen completely. The modern financial tools and products that were developed using advanced financial technology are easier to access. At present, both the public and private sectors have introduced a variety of financial innovations. There are various financial tools that help make saving money easier. In the digital era in the context of Thailand 4.0, you can use modern financial innovations such as financial transactions via applications on smartphones, online investments, and digital banking that enable access to financial services that are simple, convenient, fast, and secure (Kongkaew, Dulayavatith & Damchuti, 2021).

For new investors, "cryptocurrency transactions" are a widely popular product because they can give high returns quickly. Digital currency is a type of digital asset that is secured with encryption. It is designed to be used as a medium of exchange just like any other fiat currency, but it cannot be tangible. Nowadays, many businesses have begun to adopt technology related to cryptocurrencies to adapt to the

changing financial world, such as accepting payments for goods and services with bitcoin or other cryptocurrencies (Finnomena, 2022). However, such products carry a very high risk compared to other types of investments. The research on digital marketing communications that affects the decision to make transactions via digital currency of the new generation of investors is survey research. The objective is to study factors affecting such investment decisions that are classified by personal factors and the influence of digital marketing communications. With the hope that it will be useful to those who are interested and entrepreneurs who want to find a way to manage digital marketing communication to reach new customers in such transactions.

# Research objectives

- 1. To study the decision making of cryptocurrency transactions of young investors when classified by personal factors.
- 2. To study digital marketing communications that affects the decision to make transactions via digital currency of the new generation of investors.

#### Literature review

# **Definition of digital marketing**

Digital marketing is the development of new forms of marketing in the future using technology and digital tools to carry out marketing activities. That happens when companies carry out most of their marketing efforts through digital communication channels. The digital media is a medium that contains a code that can identify the user. For this reason, marketers can have continuous two-way communication with customers one-to-one. The information received from each individual communication each time will be useful learning to the next customer that is continual and consistent. Furthermore, marketers can use real-time information such as direct customer comments to the best benefit of future customers (Reitzen, 2007; Laolertwilai, 2015).

Digital marketing refers to the use of various marketing promotion methods in order to reach target customers by using digital technology to support the marketing of products, business operators, and brands through a variety of digital media. This digital marketing operation can be carried out by a combination of Internet-based and non-internet-based channels to support creative, communicative, and informational activities related to the product for delivering product value to the target customers quickly and more comprehensively (Kannan & Li, 2017).

Digital marketing refers to communication through digital media in which text, graphics, animation, audio, and video are transformed and linked together for the benefit of use. Technology advancements in the field of computers can be useful in advertising and public relations through digital media, including promotional campaigns through digital media (Gulati, Verayangkura & Sirirak, 2018).

In digital marketing, consumers are involved in communicating, creating, and designing products and services that they want to best meet their needs (customer co-creation). In addition to co-

creation, digital marketing can also be done in the form of a mix of channels, both using the Internet (online channels) and non-internet traditional channels (offline channels), also known as integrated marketing channels or Omni-Channel as well (Ouparamai & Phongthanapanich, 2021).

In conclusion, digital marketing is marketing that has evolved from old-fashioned marketing by marketing through digital media. It is a new form of marketing that uses digital channels to communicate with consumers. Although it is a new media, it still uses the traditional marketing principles. It only changes the channels of communication with consumers and collects consumer data. It is the development of marketing in the future. Digital media is a medium that contains codes to identify consumers. This allows marketing scholars to continue to communicate with consumers in two ways and can communicate individually. Information is obtained by communicating with each and every consumer. The feedback information received directly from consumers in real time is a collaborative learning process, and marketers can use it to get the most out of consumers in the future.

# **Definition of cryptocurrency transactions**

Cryptocurrency is an electronic data unit designed to facilitate the exchange of commodities, services, and other digital assets. If users agree with each other, it can be utilized as a means for transferring products and services. Currently, cryptocurrencies are not considered "money," and most central banks across the globe have refused to certify them as legal tender. There are a variety of cryptocurrencies, with Bitcoin and Ether being the most well-known (The Securities and Exchange Commission, 2019). Cryptocurrency is a return-generating investment commodity that has previously been granted a license to be traded on exchanges in many countries such as Thailand and Indonesia. (The Securities and Exchange Commission, 2019; Ilham, Sadalia, Irawati, & Sinta, 2022). Cryptocurrency transactions are anonymous, public ledger, traceable, immutable, and limitless, allowing law enforcement to monitor the flow of money involving investigation targets anywhere in the globe in a way that is impossible to do with cash or many other forms of financial instruments (Rahayu, 2022). As more and more purchases accept virtual currency as payment, cryptocurrency transactions will fast become a viable alternative to cash (Rahayu, 2022).

#### **Digital marketing communication format**

Corniani (2006) stated that digital marketing communications are aimed at targeted goals by the communication process with every communication stream that can be obtained from the market. The emphasis on timely interactions enables us to measure digital communications easily and economically with the fragmented and lower cost of digital communications flows. It has been a positive for communications managers in terms of specialized capabilities and customer insights. But it has risks and consequences in terms of not being able to control the digital current and the risk from the actions of competitors in terms of sending rumors to affect the organization.

The Internet provides entrepreneurs and consumers with access to various information easily and quickly. It is also a direct communication with consumers who are interested in the product. Because people who are interested in that kind of product will be gathered and have conversations about various stories related to interested product. Making communication through digital channels can be classified as communication called One-to-One. The consumer-related information will be record in consumers database system. This allows operators to check customer information at all times without having to keep an eye on consumer behavior all the time. There are many digital marketing channel and media that popular among consumers. President of P&G Asia Group mentioned how digital is changing the whole world and is completely changing the fundamentals of business operations through 5 key issues (Tanprasert, 2016; Solis, 2013).

- 1. Connections: are digital channels that have changed the way we communicate and coordinate to business operations faster. It is connected all over the world in the form of globalization. The business operators and consumers can communicate at all times and truly have no borders. The distance between workplaces is no longer a barrier in working today. There may be less travel to the meeting because of a video conference system. Sales-supported digital marketing tools enable sales teams to take care of customers with in-store purchases, inventory services, and also create a promotion system in various channels effectively. Digital marketing channels have a high influence on investment and organizational transformation (Hofacker, 2018).
- 2. Conversations: Digital channels can transform the way brands interact with their target consumers. The noticeable is the shift from the One-Way communication from manufacturer to consumers into instant conversations and continuity between the brand and the consumer. The Internet has become the world's largest focus group research tool which conducting research studies through online. Reading the website and using social networks make entrepreneurs learn and understand the needs of a wide range of consumers. It provides entrepreneurs with information that can take their interactions to the next level (Godes, & Mayzlin, 2004; Seymour & Blakey, 2020).
- 3. Co-Creation: Digital channels enable the creation of collaborative marketing content (Co-Creation) by jointly creating innovations and co-creating new ideas. That are arising from the collaboration of organizations and external agencies with the company whether it is a co-creation of educational institutions, Co-Creating of Scientists, and Co-Creating of Entrepreneurs In addition, there is an escaping from communicating with consumers with content that comes from traditional marketing to create creative initiatives content based on consumer ideas and consumer needs (User Generate Content) by giving consumers the opportunity to express their opinions or make presentations about products through a digital platform (Buhalis, & Sinarta, 2019).
- 4. Commerce: The trend that entrepreneurs and consumers are becoming more popular about E-Commerce is due to the popularity of stores selling products via online or app stores. As a result, most of the leading brands are interested in utilizing electronic commerce including e-commerce websites (Gangeshwer, 2013).
- 5. Community: The term community has taken on a new meaning and has changed the context of the influence associated with social networks through the creation of sustainable relationships and social responsibility-sustainability programs. It can effectively connect with brands and

communications (Polanco-Diges, & Debasa, 2020).

organizations through social media. Focusing on the above five factors will make the creation of technology related to marketing communication with consumers and entrepreneurs have a greater chance of success. The study of consumer-related needs will promote more effective marketing

It can be concluded that the digital marketing communication model consists of 1) connecting digital channels to change the way businesses communicate with more speed 2) interaction 3) cocreation 4) commerce, and 5) Community.

# Decision components through digital marketing communications

Jadoul (2019, as cited in Ngernsrisuk & Wongmontha, 2020) describes the nature of the decision-making component as follows:

- 1. Stimulus: The moment that stimulates or encourages consumers to have awareness or needs is to disseminate the message for consumers such as advertisements including the Word of Mouth (WOM).
- 2. First Moment of Truth (FMOT): It is a term that has been defined since 2005 by Procter and Gamble (P&G) as the moment when a shopper interacts with a storefront and relates to a purchase decision or the time that consumers experience or try the product. In other words, this is the time when consumers have time to spend on a product before making a purchase.
- 3. Second Moment of Truth (SMOT): Users' experience of products or services is important, especially in after-sales service satisfaction. Consumers can send feedback of our products in three ways, namely, Positive, Neutral, and Negative Feedback.
- 4. Third/ Ultimate Moment of Truth (TMOT/ UMOT): It is the experience that consumers get from after-sales service which will lead to the next step. It is referring to acquaintances (Peer to peer) or posting reviews on websites. This is an important step for all marketing communicators hoping to get praise towards goods and services. When we share that information further, it creates a loop of Moment of Truth.
- 5. Zero Moment of Truth (ZMOT): Lecinski (2012) explains that ZMOT is the experience of consumers before making a decision to buy various products, such as reading reviews on the website or searching for information on the Official Website/Fan page, including related applications. It can be concluded that ZMOT is a decision-making process between stimulus and FMO. It is clear that ZMOT is the pre-shopping experience, which is a very important time for marketers in general. Nowadays, consumers are all addicted to news and unlimited information. Especially for products that require high information in decision-making, such as hotel reservations and air ticket reservations as can be seen from consumer behavior that is always used information to compare products or services.

In conclusion, digital marketing communication plays a role in the dynamic development of new technologies. The advancement of globalization has had a significant impact on consumer behavior patterns. Modern consumers gradually abandoning the general pattern of being defensive in purchasing goods and services and developing towards an active consumer. They not only make conscious and

intentional choices of products and services but also decide when, where, and how to buy. It also plays an important role in product design and marketing campaigns. Consumer decisions are increasingly influenced by the opinions of other consumers. The word-of-mouth for product quality through word-of-mouth in the virtual world has quickly become the main platform for discussion. The decision to make cryptocurrency transactions among young investors is also increasingly influenced by purchasing decisions through digital marketing communications.

The results of the research literature review can be used to create a conceptual framework as follows:

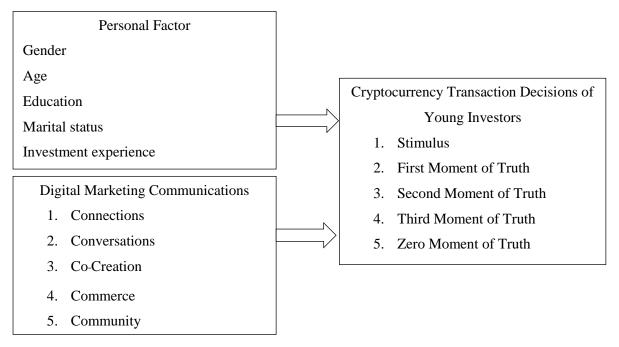


Figure 1 Conceptual framework

# Research methodology

The sample group of the research are young investors aged 18–32 with experience in cryptocurrency transactions. Therefore, this research cannot identify the population size. For sample size calculation of an unknown population size, the researcher used the study number of variables criteria of Hair et al. (2010: 100-102), which proposed the ratio of samples to the number of parameters or variables observed for measurement suitability. The sample size should be at least 30 samples per 1 observation variable. As a result, the study's sampling group consisted of 600 young investors aged 18–32 with experience in cryptocurrency transactions.

The tool was a questionnaire, which was tested for content validity and precision. The statistics used in the data analysis consisted of percentage, mean, standard deviation, t-test, one-way analysis of variance, model analysis, and Multiple Indicators Multiple Causes (MIMIC) by analyzing structural equations model. The questionnaire quality test that passed the content validity test from 3 experts received a content validity value of 0.67–1.00. The precision value with Cronbach alpha from experienced

investors of the 30 experienced investors in crypto-currency transactions, aged 30+. The digital marketing communications questionnaire had a Cronbach alpha value of 0.81-0.92, and the cryptocurrency transaction decision had a value of 0.75-0.84. The questionnaire is divided into three parts:

- 1. The personal characteristics of the respondents were multiple choice closed-ended questions. Inquire about gender, age, education, marital status, and investment experience.
- 2. Digital marketing communications contains questions about connections (5 items), conversations (5 items), Co-Creation (5 items), commerce (5 items), and community (5 items) It was a 5-level questionnaire with a total of 25 questions.
- 3. Cryptocurrency transaction decisions consist of questions about stimulus range or stimulating consumers to be aware (Stimulus) (3 items), the moment the buyer interacts with the merchant (First Moment of Truth) (3 items), experience the transaction or service (Second Moment of Truth) (3 items), the experience that consumers receive from after-sales service (Third Moment of Truth) (3 items), and the experience of consumers before making a decision to make a transaction (Zero Moment of Truth) (3 items). It was a 5-level estimation scale questionnaire, totaling 15 questions.

The criteria for considering the mean, use the criteria of Best and Kahn (1998: 247) as the estimation criterion as follows:

Score 4.21-5.00 means the assessment results are at the highest level.

Score 3.41-4.20 means the assessment results are at a high level.

Score 2.61-3.40 means the assessment results are at a moderate level.

Score 1.81-2.60 means the assessment results are at a low level.

Score 1.00-1.80 means the assessment results are at the lowest level.

The results of the concordance analysis of the empirical data by using chi-square values ( $x^2$ ), Relative chi-square values ( $x^2$ /df), Root Mean Square error of Approximation (RMSEA), Normed Fit Index (NFI, Comparative Fit Index (CFI), Goodness of Fit Index (GFI), and Standard Root of Mean Square Residual (SRMR) (Jöreskog, & Sörbom, 2012).

#### Research results

The results showed that most of the respondents were male (52.33%), aged 28-32 years (52.33%), bachelor's degree (61.83%), single status (67.50%), and experience in cryptocurrency investment 2-3 years (53.83%).

Table 1 Digital Marketing Communications

<b>Digital Marketing Communications</b>	Mean	SD.	Assessment
Connections	3.84	0.682	High
Conversations	3.92	0.748	High
Co-Creation	4.12	0.792	High
Commerce	3.88	0.681	High
Community	4.20	0.690	High
Total average	3.99	0.719	High

Digital marketing communications overall, it was assessed at a high level. when prioritized in the top three, they consisted of community, co-creation, and commerce aspect, respectively.

 Table 2 Cryptocurrency Transaction Decision

<b>Cryptocurrency Transaction Decision</b>	Mean	SD.	Assessment
Inducing consumers' perceptions or needs	3.80	0.743	High
Publishing, distributing messages to consumers	3.37	0.696	Moderate
WOM (Word of Mouth) telling	3.36	0.754	Moderate
Stimulus	3.51	0.731	High
The time that consumers experience or try the product	3.46	0.742	High
Having time with a product before making a purchase	3.50	0.751	High
Studying information through online channels	3.49	0.748	High
First Moment of Truth	3.48	0.747	High
Experience with products/services	3.51	0.701	High
Satisfaction after consumption or service	3.33	0.728	Moderate
Consumers can send positive feedback	3.57	0.760	High
Second Moment of Truth	3.47	0.730	High
Referrals to acquaintances (Peer to peer)	3.52	0.765	High
Posting reviews on different websites	3.65	0.711	High
Rating and showing appreciation through the website	3.52	0.766	High
Third Moment of Truth	3.56	0.747	High
The experience of consumers before making a purchase decision	3.49	0.815	High
based on reviews from users who have used them.			
Perceiving the value of cryptocurrencies by influencing	3.79	0.751	High
customer purchase decisions			
Access to read reviews on the website or to find information in	3.45	0.750	High
the Official Website / Application regularly.			
Zero Moment of Truth	3.58	0.772	High

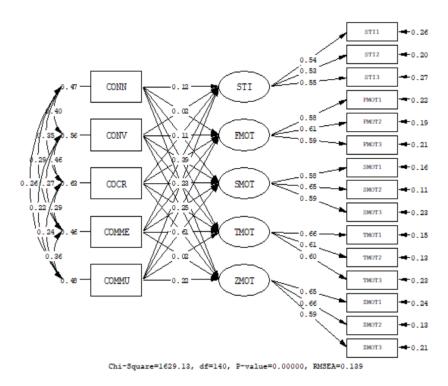
The decision to transact through cryptocurrencies has been assessed on a high level on all counts. When the first three priorities are arranged, they include: the experience of the consumer before deciding to make a transaction (Zero Moment of Truth), the experience that the consumer receives from the after-sales service (Third Moment of Truth), and the stimulus period or stimulating consumers to be perceived (Stimulus), respectively.

**Table 3** Cryptocurrency Transaction Decisions Classified by Personal Factors

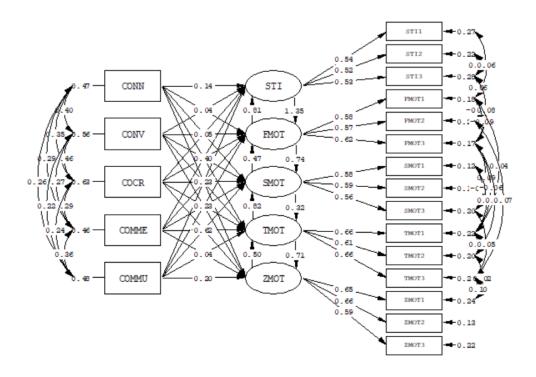
	Gender	Age	Education	Marital	Experience
				status	
Stimulus	0.874	0.507	0.270	0.281	3.224**
First Moment of Truth	0.392	0.501	0.833	0.264	0.674
Second Moment of Truth	1.893	3.298*	2.113	8.758**	0.953
Third Moment of Truth	1.694	2.324	0.245	3.720*	0.866
Zero Moment of Truth	0.804	5.774**	2.060	9.124**	$2.589^{*}$
<b>Cryptocurrency Transaction</b>	1.663	2.851	1.654	4.318*	2.635*
Decisions					

The study of cryptocurrency transaction decisions based on personal factors found that there were differences according to marital status and investment experience, with a statistically significant level of .05. When considering each aspect, it was found that stimulus range or stimulating consumers to perceive (stimulus) found the difference in investment experience with statistically significant at the .01 level. In terms of the first moment of truth, when buyers interacted with merchants, there was no statistically significant difference from personal factors. Experiences in transactions or services (Second Moment of Truth) were found to vary with age with statistical significance at the .05 level and in terms of marital status, statistical significance at the .01 level.

It was found that customers' experiences with after-sales service (Third Moment of Truth) are different depending on whether or not they are married. This difference is statistically significant at the .05 level. While the experience of consumers before deciding to make a transaction (Zero Moment of Truth) found that there was a difference in their investment experience with statistical significance at the .05 level, age and marital status were statistically significant at the .01 level. The results of the digital marketing communications that affect the decision to make transactions via digital currency of the new generation of investors by the analysis model for Multiple Indicators Multiple Causes (MIMIC) using Structural Equation Model (SEM) can be presented as follows.



**Figure 2** Digital marketing communications that affects the decision to make transactions via digital currency of the new generation of investors (model before adjustment)



Chi-Square=223.82, df=115, P-value=0.05608, RMSEA=0.048

Figure 3 Digital marketing communication that affects the decision to make transaction.

**Figure 3** Digital marketing communication that affects the decision to make transactions via digital currency of the new generation of investors (model after adjustment)

Table 4 Proving congruence with the empirical data of confirmatory factor analysis (CFA)

Value Criterion		Value before	Result of	Value after	Result of
value Cinerio	Criterion	adjustment	consideration	adjustment	consideration
$\chi^2/df$	Less than 5	11.64	×	1.95	V
RMSEA	0.03-0.08	0.139	×	0.048	$\checkmark$
NFI	0.9 or more	0.94	$\checkmark$	0.98	$\checkmark$
CFI	0.9 or more	0.95	$\checkmark$	0.98	$\checkmark$
GFI	0.9 or more	0.77	×	0.92	$\checkmark$
SRMR	Less than .05	0.096	×	0.046	$\checkmark$

**Note:**  $\sqrt{}$  means passing the index test result criteria used to verify the consistency and harmony of the model with the empirical data.

The results of the index analysis used to verify the coherence and harmony of the model with the empirical data using Confirmatory factor analysis (CFA). The results of the assessment of the harmony of the model revealed that  $x^2 = 233.82$ , df = 115,  $x^2/df = 1.95$ , RMSEA = 0.048, NFI = 0.98, CFI = 0.98, GFI = 0.92, SRMR = 0.046. The index shows that the new model has better empirical consistency because it is consistent with sufficient empirical data.

**Table 5** Digital marketing communications that affects the decision to make transactions via digital currency of the new generation of investors

		STI	FMOT	SMOT	TMOT	ZMOT
	β	0.14**	0.04	0.05	0.40**	0.23**
Connections : CONN	SE.	0.05	0.07	0.08	0.05	0.04
	t	2.64	1.08	0.74	5.22	3.05
	β	0.20**	0.39**	0.38**	0.24**	0.29**
Conversations: CONV	SE.	0.05	0.04	0.04	0.05	0.05
	t	2.56	5.56	4.60	3.22	4.14
	β	0.27**	0.05	0.23**	0.52**	0.58**
Co-Creation: COCR	SE.	0.06	0.06	0.06	0.06	0.03
	t	4.20	0.91	3.48	8.43	9.95
	β	0.17**	0.30**	0.21**	0.17**	0.01
Commerce: COMM	SE.	0.05	0.05	0.05	0.03	0.09
	t	4.12	4.38	2.25	2.64	0.26
	β	0.72**	0.61**	0.45**	0.18**	0.20**
Community: COMU	SE.	0.03	0.03	0.04	0.03	0.03
	t	10.12	9.35	9.28	2.80	7.69
(Forecasting power R <sup>2</sup> )		0.94	0.90	0.82	0.88	0.75

The results of the study showed that for the decision to make transactions via cryptocurrencies among young investors, stimulus range or encourage consumers to be aware (Stimulus) is influenced by digital marketing communications in all aspects. The most influential aspect was community. The moment a buyer interacts with a merchant (First Moment of Truth) is influenced by some aspects of digital marketing communications. The most influential aspect was community. The experience of a

transaction or service (Second Moment of Truth) is influenced by some aspects of digital marketing communications. The most influential aspect was community. The consumer experience of after-sales service (Third Moment of Truth) is influenced by all aspects of digital marketing communications. The most influential areas are co-creation. Consumers' experience before making a transaction (Zero Moment of Truth) is influenced by some aspects of digital marketing communications. The most influential areas are co-creation. In conclusion, digital marketing communication that affects the decision to make transactions via cryptocurrencies of young investors in the first two areas: community and co-creation.

# **Summary and discussion**

- 1. Cryptocurrency transaction decisions based on personal factors found that there were differences according to marital status and investment experience. The research results are consistent with Thanma and Boonyasena (2015), Influence of Integrated Marketing Communications on Female Decision Making in Online Clothing Purchase: A Case Study of Bangkok Metropolis, which found that factors influencing the decision to purchase ready-made garments were marital status and length of time on the Internet. The decision to transact through cryptocurrencies was based on gender, age, and education factors. There was no difference. The findings would conflict with Rittiboonchai, Kriwuttisom and Trang Ngo (2018), who suggest that self-purchase behaviors of cosmetics through ecommerce systems differ by gender, age, and education. The result also contradicts with Rittiboonchai (2021) study of marketing mix factors affecting the frequency and loyalty in online transactions of Nakhon Pathom teenagers. When Nakhon Pathom teens were grouped by gender, age, education level, and income, it was found that their online shopping habits and loyalty were different.
- 2. Digital marketing communications affects the decision to make transactions via digital currency of the new generation of investors in the first two areas, namely, community and co-creation. The findings are in line with Somboonthawee's (2019) work on factors affecting purchasing decisions of one brand of fashion shoes via an online channel. A statistically significant 0.05 of a particular brand of fashion footwear was purchased online through online channels (PD). The findings are also consistent with the research by Polanco-Diges and Debasa, (2020) and Buhalis and Sinarta (2019), which proposed that tourism services and hospitality businesses in the new era need to rely on the cooperation of the surrounding communities and customize services according to customer requirements.

#### **Practical implication**

1. Young investors' decisions to transact through cryptocurrencies is due to differences in marital status. Investors with families tend to be less likely to accept the risks involved in such transactions than those who are single. This is because the nature of such investments is still quite risky. Cryptocurrency transactions together with other types of savings is a point that stakeholders need to focus on and create understanding with such consumers.

- 2) Cryptocurrency transaction decisions based on personal factors found that there are differences according to investment experience. The longer a young investor has experience in cryptocurrency transactions, the more likely they are to make a decision to transact using cryptocurrencies. In this aspect, two cases may be analyzed: long experience will give a tendency to see the direction and assess the risk of making a decision to make transactions via cryptocurrencies. At the same time, long experience is the persistence rate, i.e. there are investors who do not experience in such transactions and stopped investing in the early years of its inception due to the fact that cryptocurrency transactions are still quite high risk there.
- 3) Digital marketing communications affect the decision to make transactions via digital currency of the new generation of investors in the first two areas, namely, community and co-creation. The decision to transact through digital currency will likely be an effective connection between decision making in online transactions.

# **Academic implication**

- 1. This research collects online data from a group of new investors through crypto-currency transaction decisions caused the imperfect data distribution. If, under normal circumstances, interested parties may adjust the sampling to have a statistical likelihood distribution.
- 2. This research focuses only on quantitative research. Those who are interested may continue to do qualitative research. To get more in-depth information by using in-depth interviews or making a group conversation.
- 3. The research studies only new investors. If interested people will continue to study to develop the model for people of different ages or generation in comparison, it should expand the boundaries of knowledge even more.

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MARKETING-MIX FACTORS AFFECTING CONSUMPTION
BEHAVIOR OF RAW BANANA POWDER: SUAN FUNG KHAJON
BRAND IN BANGKOK AND METROPOLITAN AREA

Atitiya Pliarun<sup>1</sup>
Manassanant Plathitiphan<sup>2</sup>
Sasitorn Thupbucha<sup>3</sup>
Panisa Mechinda<sup>4</sup>
Purinat Yamakanith<sup>5\*</sup>

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#### **ABSTRACT**

The objectives of this research were to study 1) the demographic characteristics of consumers of Suan Fung Khajon raw banana powder products in Bangkok and the Metropolitan Region, 2) the factors of the marketing mix that affect the consumption behavior of Suan Fung Khajon raw banana powder products in the Bangkok Metropolitan Region, and 3) the relationship between demographic characteristics and consumption behavior of Suan Fung Khajon raw banana powder products in the Bangkok Metropolitan Region. This study used a quantitative research method by using an online questionnaire with 240 participants and a convenient sampling method. The results showed that most of them were female (76.25%), under the age of 24, Gen Z (37.92%), had a bachelor's degree or equivalent (69.58%), were students (47.391%), and had an average family income. 18,000 baht per month or less (47.80%) The majority of those who purchased raw banana powder accounted for 60.15%. Most consumers prefer to buy from pharmacies (149 people), representing 62.08%, respectively. Results of the relationship between education, age, and income and purchase objectives found that education, age, and income and purchasing channels were not correlated. According to the test results on the relationship between gender and purchasing goals, there was a statistically significant link between gender and purchasing channels.

Keywords: Marketing Mix, Raw Banana Powder, Consumer Behavior, Consumption

<sup>&</sup>lt;sup>12345</sup>Faculty of Business Administration, Rajamangala University of Technology Thanyaburi, Thailand.

<sup>\*</sup>Corresponding author email: purinat\_y@mail.rmutt.ac.th

#### Introduction

Today, bananas are processed for food preservation in many forms, such as drying, welding, crisping, roasting, or stirring. The value of the process is enhanced by adding different flavors and innovative packaging designs, but it has competitive competitors. Therefore, it has to be processed in new ways in order to create differentiation and more value. The interest in healthy food consumption, especially processed agricultural food, has started to expand more and, at the same time, must respond. Receive it with convenience and speed of consumption. This is in line with the trend that Thai populations have turned to eating different types of bananas in more ways because the properties of bananas are many, such as reducing fat in the blood, treating gastritis because they contain tannin that helps coat the stomach and intestines and also helps relieve symptoms of acid reflux, etc. (Charoenthai, 2019). Banana is a tropical fruit in the family Musaceae. It is a tropical plant native to Asia, especially South and Southeast Asia. Thailand is a genetic source of a variety of bananas, so there are wild bananas and bananas planted everywhere, counting only edible bananas, excluding wild bananas. There may be more than 50 species that are widely known, such as Kluai Nam Wa, Kluai Hom, Kluai Khai, Kluai Hak Muk, Kluai Mue Nang. Other types of bananas may be known only locally, such as Nang Phaya bananas, Hin Kluai, Kluai Sa, Kluai Lai in the south, Nam Sao bananas, Karen bananas in the west, Golden short banana, Nuan banana, Northeastern region Bananas, Chan Bananas in the north, etc. Bananas are economic crops with natural diversity. There are more modifications and scientific studies to add value and take advantage of the diversity of bananas. (Cham, 2019).

Raw bananas contain higher amounts of tannins than ripe bananas. Ripe bananas have properties that can precipitate proteins, helping to heal wounds in the stomach and intestines that are caused by acid reflux. In addition, bananas are also an aid in excretion because they contain important substances, pectin, a large molecule carbohydrate that the body can't digest. It has the ability to increase fiber in the stool and intestines, helping to increase the efficiency of excretion without having to exert force or cause constipation, the cause of hemorrhoids. The benefits of raw bananas are classified as the main drugs in the National List of herbs, with the main drug used in the treatment of stomach ulcers, helping to relieve diarrhea. Raw bananas will have an astringent taste, help relieve diarrhea, and heal wounds. In the intestines, it heals stomach ulcers and can also cure diarrhea because raw bananas contain tannins, which can help inhibit the growth of bacteria, prevent damage to the intestinal wall, and prevent cancer. (Sirakan, 2020). However, although Thailand has the production and many bananas are sold internally and exported abroad, but in some seasons the production of bananas exceeds the demand. This led to an oversupply of bananas because freshly consumed bananas had a shelf life of only 5-7 days before rotting, which was considered quite a shelf life. Short, causing farmers to rush to sell it before it spoils. In addition, the production of bananas in large numbers may not meet the standard characteristics of bananas. For example, they may not meet the standard shape and size. As a result, it can be sold at a cheap price or cannot be sold at all, thus affecting the country's economic loss. (Phuapisit, Wongkamhaengharn, Mahain & Wattanametha, 2016). Therefore, in order to help reduce

the country's economic loss, the research work sees the importance of banana adoption. Raw bananas are turned into banana starch so that it can be used more easily or turned into products with a higher value.

From the above article, the researcher is interested in studying the factors of marketing mix that affect consumer behavior of Suan Fung Khajorn brand of raw banana powder in Bangkok and Metropolitan region because the results of the relevant literature review have also found the gaps in research to be studied on this issue, which allows researchers to study how individual marketing mix factors affect consumers' consumption behavior of raw banana powder, and the results of the study can also be used as a guideline for raw banana powder business can also be used as a guideline for marketing planning, improvement, or business development to meet the needs of consumers, and it is beneficial to those who are interested in the same type of business or related businesses.

# Research objectives

- 1. To study the demographic characteristics of consumers of Suan Fung Khajon raw banana powder products in Bangkok Metropolitan Region.
- 2. To study the factors of marketing mix that affect the consumption behavior of Suan Fung Khajon raw banana powder products in Bangkok Metropolitan Region.
- 3. To study the relationship between demographic characteristics and consumption behavior of Suan Fung Khajon raw banana powder products in Bangkok Metropolitan Region.

# Research hypothesis

Demographic characteristics correlated with consumption behavior of Suan Fung Khajon raw banana powder among consumers in Bangkok Metropolitan Region.

#### Research conceptual framework

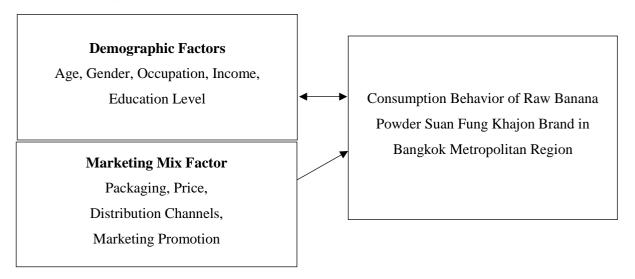


Figure 1 Research framework

# Literature review

#### **Definition of Marketing Mix**

Marketing mix is one of the important concepts in marketing because marketing management is to satisfy customers. Marketers will use the marketing mix as a tool to develop their products in line with their target market. From the study, there are many academics who have given the meaning of marketing as follows:

Kotler and Armstrong (2016) have given the meaning that "marketing mix" is a tool that businesses or executives can use to meet consumer needs and to satisfy consumers in their target market. The marketing mix consists of products, prices, distribution channels, and marketing promotions. Marketers are responsible for implementing the marketing mix strategy for their target market by determining the amount of marketing budget that will be used for each element of the marketing mix to increase sales, profits, or other objectives of the business. The executives who have set.

Schiffman and Wisenblit (2015) refer to the controllable marketing variables that many businesses use together to meet the satisfaction of their target customers.

Wheelen and Hunger (2012) define the marketing mix as a combination of important variables under the control of an organization that can be used to generate demand and gain a competitive advantage. These variables are: product, place, promotion, and price. These variables are sub-elements that can be analyzed to adjust to suit the ability of the organization.

Kuntonbutr (2014) has defined the marketing mix factor as the direct component related to the product or service to be offered to the consumer. Factors related to marketing mix consist of 4 types of marketing factors such as product, price, distribution and marketing promotion.

In conclusion, the marketing mix is a key factor and a group of marketing management tools. It is a factor that can be controlled, changed, and adjusted accordingly, which is very important to many aspects, including personal, economic. And society because marketing agencies or organizations create jobs and generate income for individuals and the consequence is that the individual, the consumer, is met with the highest level of comfort and satisfaction for the enterprise when it comes to production, investment, and employment. People have more income and purchasing power, the country, economy and society will raise the standard of living. The marketing mix (4P's) consists of products, prices, distribution channels and marketing promotions.

#### **Consumer behavior**

The study of consumer behavior will enable the creation of marketing strategies that create satisfaction for consumers and the ability to find corrective solutions to consumer decision-making behavior in society. Importantly, it will help to develop the market and develop better raw banana powder products. From the study, there are many academics who have given the meaning of marketing as follows:

Kotler and Armstrong (2018) define consumer behavior as the result of interactions between cultural factors, social factors, personal factors, and psychological factors.

Solomon (2018) has defined consumer behavior as the process when individuals or groups choose, buy, use, or dispose of a product, service, idea, or experience to meet their needs and desires.

Kotler and Keller (2012) define consumer buyer behavior as the buying behavior of final consumers, individuals and households who buy goods and services for personal consumption.

Thippala (2012) Consumer behavior refers to the decision-making behavior and actions of searching, buying, using, evaluating the use of products and services.

In conclusion, consumer behavior is defined as any act or behavior of any person directly related to the acquisition of goods and services. This includes the decision-making process in which the evaluation of the product is made. Decisions may include other factors involved in the decision-making by which the value of the purchaser's evaluation is measured by its value of the product or service that has been decided to purchase.

Phuapisit, Supadilokluk, and Taiwan (2016) studied the issue of consumer opinion towards the marketing mix of healthy banana flour cookies, and the results of the study found that most of the respondents were female, aged 21-30 years, had a bachelor's degree, had a state enterprise occupation, had an average monthly income of less than 20,000 baht, and were single. It was found that consumers had a high level of opinion on the marketing mix of banana flour cookies for overall health. The products had the highest average, followed by marketing channels, marketing promotions, and prices, respectively. The hypothesis testing revealed that gender, age, education level The average monthly income and different status states had no significant difference in their opinions on the marketing mix of healthy banana flour cookies at the level. 0.05 Different occupations had significantly different opinions on the marketing mix at the 0.05 level, consistent with the hypothesis, which is consistent with the research of Konkla (2016), who has studied the issue of marketing mix affecting product selection. Dietary supplements are consumed by consumers in Phayao Municipality, and the research found that the marketing mix factors affecting consumers' purchases of dietary supplements in Phayao Municipality. Overall, it is at the highest level. Consumers pay attention to the factor of product marketing mix, which is good quality products according to their properties and price features. Specifically, the price is suitable for the product, the distribution channel is the location, and it is convenient to buy and sell a variety of products. In terms of physical aspects, the product's logo or brand must be clear and the service process must be accurate in payment.

In the same way as Chawala, Suntramethakul and Phorncharoen (2021), who studied the issue of the mixed marketing factors influencing consumers' decisions to buy furniture in Ubon Ratchathani Province, the research found that the marketing mix factors influencing consumers' decisions to buy furniture in Ubon Ratchathani consisted of four independent variables, namely service process, physical characteristics, human characteristics, and distribution channels. The predicted dependent variable was statistically significant at .05 or 47.30 percent, which was consistent with Pochai (2019), who has

studied the issue of marketing factors that affect the decision to consume premium fruit: a case study of the consumer in Banpong District, Ratchaburi Province. The research results were that as marketing factors, the decision to consume premium fruit was overall at a high level. When each aspect was considered, the 2 aspects at the highest level were as follows: product and price, and the 5 aspects at the highest level were as follows: promotion, ranked in descending order of place, people, physicality, and process, receptively. The decision to consume premium fruit was overall at the highest level. When each aspect was considered, the 3 aspects at the highest level were as follows: information search, ranked in descending order of problem recognition, and evaluation of alternatives; and the 2 aspects at a high level were as follows: purchase decision, and post purchase behavior, receptively. The hypothesis test found that marketing factors that affect the decision to consume premium fruit with statistical significance at the 0.01 level were people, product, price, and place; whereas those that affect the decision to consume premium fruit with statistical significance at the 0.05 level were promotion, and process, respectively.

#### Research method

This research is quantitative and statistical analysis is emphasized, such as percentage, arithmetic mean, standard deviation, Pearson Chi -Square, etc. The research tool was a questionnaire for collecting data. The questionnaire was divided into 3 parts: Part 1, questions about the nature of general information about consumers, all 4 questions such as education level, age, gender, and income; Part 2, questions about consumption behavior, all 3 questions such as types of herbs that consumers choose to buy, the purchase channels that consumers use; and marketing mix that affects consumer purchase intent; Part 3, questions about the marketing mix, such as components of a product that affect consumers' purchasing decisions, price level that affects consumers' purchasing decisions; distribution channels that affect consumers' purchasing decisions; and marketing promotion that affects consumers' purchasing decisions.

# Population, sampling method and sample size

Determine the population frame in this research, that is, if there is no population frame because the list of population cannot be determined

The researcher used to determine the size of Z.

Set a tolerance of 7%

Set a confidence level of 95% = 1.96.

Set the variance 50:50.

(As for the 50:50 variance derived from the questionnaire, the conclusions are the probability of purchase because of packaging, reasonable price, package size, label, percentage of purchase at 50%, and the proportion of people who will not buy it because there is little awareness of properties and have never eaten raw banana powder, so the proportion is at 50%)

$$=\frac{(1.96)^2x(50x50)}{7^2}$$

= 196 people

Therefore, a total of 196 samples were obtained, and to prevent incompleteness of the questionnaire responses, the researcher collected an additional 22% of the sample. Therefore, a total of 240 samples were obtained.

# **Research findings**

1. Demographic characteristics of consumption of raw banana powder products Suan Fung Khajon Brand in Bangkok Metropolitan Region

There were 240 total respondents, representing 100%. Most of them were female, with 183 people representing 76.25 percent, 57 people representing 23.75 percent. In terms of age, it was found that most of them were Gen Z With an age under 24 years, 91 people accounted for 37.92%; Gen Y aged 24–39 years, 82 people accounted for 34.16%; Gen X aged 40-55 years, 51 people accounted for 21.5%; and Gen B was aged 56–74 years, 16 people accounted for 6.67%, respectively. In terms of educational level, it was found that most had a bachelor's degree or equivalent, 167 people accounted for 69.58%, followed by lower education than a bachelor's degree; 54 people accounted for 22.50%, and had higher education than a bachelor's degree, 19 people accounted for 7.91%, respectively. Most of them were students, with 115 people, representing 47.91%, followed by private company employees with 84 people, accounting for 35.00 %, and another 26 people, accounting for 10.83 percent, respectively. In terms of income/ month, found that most had a family income of 18,000 or less, of 113 people, representing 47.08%, followed by income of 18,000-50,000 baht, 88 people accounted for 36.67 %, income of 50,001-85,000 baht, 20 people accounted for 8.33%, and family income of 85,001 baht or more, totaling 19 people, representing 7.92%, respectively.

2. Marketing mix factors affecting consumption behavior of raw banana powder products Suan Fung Khajon Brand in Bangkok Metropolitan Region

**Table 1** The purchasing behavior of raw banana powder of questionnaires buyers classified by types of herbs

Herbal type	Number (person)	Percentage (%)
Raw banana powder	160	60.15
Turmeric	106	39.84
Aloe vera	68	25.56
Noni	19	7.14
Total	266 (Respondents can answer	
	more than 1 question)	

From Table 1, it is the subject of purchasing behavior of raw banana powder. It was found that 266 people had used herbs to treat/relieve acid reflux, representing 132.69%. Usually, herbs that consumers like to buy to relieve acid reflux, found that most of them bought raw banana powder of 160 people, accounting for 60.15%, followed by turmeric, 106 people, representing 39.84%, aloe vera, 68 people, accounted for 25.56% and noni had 19 people, representing 7.14%, respectively.

**Table 2** The purchasing behavior of raw banana powder of questionnaire buyers classified by purchasing channels

Herbal type	Number (person)	Percentage (%)
Online	91	37.92
Pharmacy	149	62.08
Total	240	100.00

From Table 2, in the purchase channel section, it was found that the majority of consumers bought from pharmacies, numbering 149 people, representing 62.08%, and purchasing via online channels, 91 people, representing 37.92%, respectively.

**Table 3** Marketing mix affecting raw banana powder consumption behavior of respondents.

<b>Marketing Ingredients That Affect</b>	$\overline{x}$	S.D.	Interpret	Rating
<b>Purchase Intent</b>				
Label and packaging				
1. Traditional label	3.45	1.08	Agree	4
2. New label	4.55	0.71	Absolutely agree	2
3. The original packaging is attractive.	3.53	1.07	Agree	3
and convenient for consumption				
4. Attractive new packaging	4.60	0.64	A boolutaly a area	1
and convenient for consumption			Absolutely agree	
The price of the product				
1. The price of the original size is 100 grams,	3.93	0.91	Agree	3
the price is 100 baht.				
2. The original price is 200 grams, the	3.87	0.95	Agree	4
price is 200 baht				
3. The price of the new model is 100 grams,	4.36	0.79	Absolutely agree	1
the price is120 baht				
4. The price of the new model is 150 grams,	4.35	0.75	Absolutely agree	2
the price is 170 baht				

**Table 3** Marketing mix affecting raw banana powder consumption behavior of respondents. (Cont.)

<b>Marketing Ingredients That Affect</b>	$\overline{x}$	S.D.	Interpret	Rating
<b>Purchase Intent</b>				
Distribution channel				
1. The original fanpage is reliable.	3.90	0.97	Agree	4
2. The new fanpage is reliable.	4.37	0.73	Absolutely agree	2
3. The attractiveness of the original Facebook	4.05	0.92	Agree	3
Fanpage				
4. The attractiveness of the new Facebook	4.43	0.68	Absolutely agree	1
Fanpage				
Marketing promotion				
1. Promotion 1 Buy raw banana powder	4.21	0.83	Absolutely agree	2
online. Starting from 1 piece, price 120 baht,				
delivery fee is 50 baht. Next item add 10 baht.				
2. Promotion 2, buy 4 pieces of raw banana	4.37	0.74	Absolutely agree	1
powder, get 10% discount				
3. Promotion 3 Buy raw banana powder, size	3.70	0.80	Agree	4
100 grams. Price 120 baht via FanPage,				
delivery fee is 50 baht.				
4. Promotion 4 Buy raw banana powder, size	3.73	0.87	Agree	3
150 grams. Price 170 baht via FanPage,				
delivery fee 50 baht.				

From Table 3, the marketing mixes affecting raw banana powder consumption behavior of the respondents revealed that the consumer behavior of raw banana powder consumption in terms of product labels and packaging. The new packaging is attractive and convenient to consume at the highly agreeable level, with an average of 4.60 (SD = 0.64). In terms of product price, the price of the new 100-gram price 120 baht is at highly agreeable level, with an average of 4.36 (SD = 0.79). In terms of distribution channels, the attractiveness of the new Facebook Fanpage was at the highly agreeable level with an average of 4.43 (SD = 0.68) and on the marketing promotion aspect. The second promotion is to buy 4 pieces of raw banana powder, 10% discount is at the highly agreeable level, which has an average of 4.37 (SD = 0.74).

**Table 4** Demographic characteristics (education, age, gender, income) were related to consumption behavior of raw banana powder products

	Frequ	ency of		
T :4	consumpti	ion through	Pearson Chi-	Contingency
List	herbal purc	hase channels	Square (Sig.)	Coefficient
	Online Pharmacy		-	
<b>Education level</b>	23	31	1.590 (.451)**	
Under bachelor's degree			1.390 (.431)	-
Bachelor's degree or equivalent	63	104		
Higher than bachelor's degree	5	14		
Age				
Gen Z (under 24 years old)	32	59	1.174 (.556)**	-
Gen Y (age 24-39 years old)	30	52		
Gen XB group age 40+	29	38		
Gender				
Man	29	28	5.334 (.021)**	.147
Female	62	121		
Income				
18,000 baht or less	47	66	1.226 (.268)**	-
18,001 baht or more	44	83		

From Table 4, the correlation test results between education and purchasing behavior have a Pearson Chi square value of 1.590 and a sig. value of .451, which is greater than .05, indicating that education and consumption frequency through purchasing channels have no relationship. As for the test results for the relationship between age and consumer behavior, the Pearson Chi square value was 1.174 and the sig. value was .556, which was greater than .05, indicating that the age and purchasing channels of herbs were not related. The test for the relationship between sex and consumption behavior had a Pearson Chi square value of 5.334 and a sig. value of .021, which was less than .05, indicating that sex and consumption frequency via purchasing channels were significantly correlated in terms of gender and consumer behavior. Statistically, the correlation level was .147, with males more likely to purchase raw banana powder than females. In terms of the test results of the relationship between income and consumption frequency through purchasing channels, the Pearson Chi square value was 1.226 and the sig. value was .268, which was greater than .05, indicating that the income and frequency of consumption through the channel of purchase have no relationship.

#### **Discussion**

1. Objective 1 is to study the demographic characteristics affecting the consumption behavior of Suan Fung Khajon raw banana powder brand in Bangkok Metropolitan Region

The results of a demographic study revealed that there were people who were interested in consuming Suan Fung Khajon branded raw banana powder in Bangkok and Metropolitan Region. Most of them were female, numbering 183, representing 76.25%. In terms of age, it was found that most of them were Gen Z under 24 years of age, 91 people, representing 37.92%. In terms of education, it was found that most had a bachelor's degree or equivalent to 167 people, representing 69.58%, and in terms of income/month, it was found that most of them had family incomes of 18,000 baht or less, with a total of 113 people, representing 47.08%. Most of them were students, with 115 people, representing 47.91%, which is consistent with Phuapisit, Supadilokluk, and Taiwan (2016), who studied the issue of Opinion of Consumers towards Marketing Mix of Health Banana Flour Cookies and the results of the study found that most of the respondents were female, aged 21-30 years, had a bachelor's degree, had a state enterprise occupation, had an average monthly income of less than 20,000 baht, and in accordance with Panyakam et al. (2014), conducted a study on Food Product Development from Pisang Awak (Musa sapientum L.) for Tapprik Subdistrict Administrative Organization Women Groups, the result was found to have a variety of occupations, including students, civil servants/state enterprises, and personal business, etc.

2. Objective 2 is to study the factors of marketing mix that affect the consumption behavior of Suan Fung Khajon raw banana powder brand in Bangkok Metropolitan Region

It was found that the consumer behavior of raw banana powder in terms of product labeling and packaging was mostly favored by the new packaging, which was attractive and convenient for consumption, and the product labeling was attractive and attractive, consistent with the research of Netwipada (2018), conducting a research study on A Comparative Study of Marketing Mix and Consumer Behavior by Using Demographic Characteristics. The results of the research showed that f the overall product marketing mix is at a high level, the mean is 3.87. When considering the product marketing mix factor side by side, it was found that the features of the product (features) had the highest average. With an average of 4.03, followed by design (design), an average of 4.00, quality level, an average of 3.98, packaging, an average of 3.48, and brand (brand), an average of 3.46, all 5 aspects are considered to be of high importance. In terms of graphics, it should be well-sourced and promote the image and uniqueness by making the product's price stand out. The price of the new type, size 100 grams, price 120 baht, which consumers consider it appropriate in terms of price and quantity that consumers will receive, is consistent with the research of Konkla (2016), who studied the Marketing Mix Affecting Product Selection Dietary Supplements of consumers in Phayao Municipality. In terms of price, the overall level was at a very high level. When considering each item, it was found that the item with the highest average value was the appropriate price for the product, followed by a clearly labeled product price, and the lowest was a variety of prices. In terms of distribution channels and

attractiveness, the new Facebook Fanpage is attractive and reliable and makes it easy to order products and ask for product details, which is consistent with Temtrairat (2018) who conducted a study on the digital marketing communication strategy of Twin Lotus Co., Ltd., and found that the strategy of digital marketing communication through all three channels, namely website, Facebook fan page, and LINE Ad, all the time to create an understanding of the details of the product, the properties of the product, the price, distribution channels, and marketing promotion. In terms of promotion, if buying raw banana powder online, the delivery fee is 50 baht. When customers buy the next item, they add 10 baht, or buy 4 pieces of raw banana powder, they get a 10% discount, which increases the incentive to buy products in quantity in accordance with the research of Kaosumpuns (2017), who studied the promotion effectiveness of fresh-coffee consumption behavior among consumers in Chiangmai Province. It was found that factors in the marketing promotion of consumers in Muang District, Chiang Mai Province, were at a high level classified according to 3 sub-factors. There are membership cards and special events available, such as buy between 2 and 3 p.m., drink one get one free, or buy a second drink at half price.

3. Objective 3 was to study the relationship between demographic characteristics and consumption behavior of raw banana powder products of Suan Fung Khajon Brand in Bangkok Metropolitan Region

From the test results, the relationship between education, age, income and purchase objectives. It was shown that education, age and income and purchasing channels of herbs were not correlated, and as for the test results of the relationship between gender and the purchase objectives, it was found that gender and channels of purchasing herbs were significantly correlated statistically, males were more likely to purchase raw banana powder than females which is inconsistent with the research of Tangjitwichanana (2020) who studied factors related to purchasing products related to beliefs and religious rituals of consumers during the year In 2021, demographic test results were correlated with purchasing behaviors related to religious beliefs and rituals using the Chi-square statistic. At a statistically significant level of 0.000, which is less than 0.1, at a 90% confidence level, we reject hypothesis 1 and accept hypothesis 2, meaning that demographic characteristics influence consumption behavior or Purchasing items related to religious beliefs and rituals, except for gender variables, had a Chi-Square value of 0.388, a statistically significant level of 0.534, which is greater than 0.1, i.e., at a 90% confidence level. We accept hypothesis 1. In other words, gender does not affect purchasing behavior related to religious beliefs and rituals.

# **Research suggestion**

For more successful study, further information on the flavor of raw banana powder should be gathered in future studies, along with specifics regarding FDA-approved symbols. So that the findings of the study are as obvious, effective, and accurate as possible, the questionnaire should be sent to a sample population that closely resembles the target population.

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SHRM PRACTICES, ORGANIZATIONAL RESILIENCE, AND SUSTAINABILITY PERFORMANCE

Preecha Khammadee1\*

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**ABSTRACT** 

In turbulent times, organizational resilience is considered as an important factor on sustainability performance. Organizational resilience needs to develop within organizations under challenging conditions from SHRM practices to gain competitive advantage and successful sustainability performance. This study aims to propose a conceptual model of SHRM practices, organizational resilience, and sustainability performance. The study found that the integration of SHRM practices, organizational resilience, and sustainability performance. The relationship between these three variables seems to clarify these conceptualizations. The study highlights that SHRM practices have a significant chance to develop an organization's capacity for resilience that enables sustainability performance.

Keywords: SHRM Practices, Organizational Resilience, Sustainability Performance

<sup>&</sup>lt;sup>1</sup> College of Innovative Management, Valaya Alongkorn Rajabhat Universityunder the Royal Patronage, Thailand \*Corresponding author email: preecha.kham@vru.ac.th

#### Introduction

Organizational crises are an increasingly complex world and an unpredictable business environment. Unstable environments create challenges for business opportunities in the period of economic recovery after the disruption of the COVID-19 pandemic (Ichsan, Santosa, Shara, & Liriwati, 2020; Ulmer, Sellnow, & Seeger, 2015; Vogus & Sutcliffe, 2007; Lengnick-Hall, Beck, & Lengnick-Hall, 2011). From a business perspective, human resource management practices have gone beyond traditional function to a more strategic role that contributes to business sustainability (Ichsan et al., 2020; Naznin & Hussain, 2016; Bustinza et al., 2019). Employee performance and long-term sustainability can be improved through strategic human resource management practices (Chams & Garca-Blandón, 2019).

Recently, the concept of resilience has focused on a firm's capability to survive and adapt in a dynamic and uncertain environment (Hillmann & Guenther, 2021; Sawik, 2013; Williams, Gruber, Sutcliffe, Shepherd, & Zhao, 2017; Chowdhury & Quaddus, 2017; Folke, 2006). Organizations need to develop a capacity for resilience and it is one of the most important factors to success in the world today (Bouaziz & Hachicha, 2018; Britt, Shen, Sinclair, Grossman, & Klieger, 2016). Sustainable organizations and effectiveness depend on the ability of organizations resilience from strategic human resource management practices that enable their performance and sustainability in the turbulent business environment (El Dessouky & Al-Ghareeb, 2020; Thaiprayoon, Mitprasat, & Jermsittiparsert, 2019; Rauter, Globocnik, Perl-Vorbach, & Baumgartner, 2019).

Therefore, this study aims to propose a conceptual model of SHRM practices, organizational resilience, and sustainability performance. Likewise, the study hopes to create awareness among HR managers and employees about SHRM practices and organizational resilience that can enhance sustainability performance and survive in the long run. The next sections of this article outline the literature review and hypotheses development, methodology, discussion, and conclusion.

#### Literature review and hypotheses development

# 1. SHRM practices and sustainability performance

The emergence of new issues in human resource management is always dynamic and brings in a difference while fulfilling the organizational goals while increasing productivity and performance. The activities at the strategic level are the best priority for the companies. This takes HRM practices to a much higher strategic level. The issues are related to gender diversity, developing global leaders, recruitment and training, and equal work opportunities for all (Huselid, Jackson, & Schuler, 1997; Meier et al., 2007; Kumar, 2019). However, organizational sustainability is not only dependent on effectively managing finances. It is also linked with other strategic aspects like leadership and human resource management in organizations (Ehnert, Harry, & Zink, 2013). Human resource management practices such as recruitment and selection, training and development, performance appraisal, and compensation systems can directly and indirectly impact on organizational performance. Strategic human resource

management (SHRM) is contributing to business sustainability and organizational success (Jackson, Schuler, & Jiang, 2014; Bustinza et al., 2019; Aycan, Al-Hamadi, Davis, & Budhwar, 2007; Katou & Budhwar, 2006). Organizations need to develop a set of strategic human resource management practices that include knowledge, attitude, and behavior, help the organization achieve sustainability in the long run (Chams & García-Blandón, 2019; Thaiprayoon et al., 2019). SHRM practices were discovered to have significant value, putting any organization on the path to competitive advantage and sustainability (Rockwell, 2019). Many studies have been conducted to examine the antecedents of SHRM practices' working mechanisms for better relationship with sustainability performance (Hamadamin & Atan, 2019; Kramar, 2014; Qureshi, Pillai, & Singh, 2018).

**Hypothesis 1.** *SHRM practices have positive relationship with the sustainability performance.* 

# 2. SHRM practices and organizational resilience

In today's world, organizations are increasingly challenged by dynamic and changing environments such as natural disasters, terrorist attacks, or technical malfunctions that threaten an organization's competitiveness and survival. To successfully overcome these conditions, organizations must develop a capacity for resilience to find new business opportunities (Duchek, 2020; Bouaziz & Hachicha, 2018; Acs, Autio, & Szerb, 2014). Meanwhile, Lengnick-Hall et al. (2011) and Ho, Teo, Bentley, Verreyne, and Galvin (2014) suggest that human resource management (HRM) can be a greater part in the development and analysis of organizational resilience analysis. To achieve organizational resilience, the HRM system should develop individual knowledge, skills, and abilities to provide organizational capabilities. The HRM system that keeps the core of the organization aligned to corporate strategy in dynamic environments contributes to organizational resilience development. SHRM practices aim to generate the capacity from employees that is the most important part of a resilient organization by ensuring their skills, abilities, and behaviors are committed and motivated to achieve a sustainable competitive advantage (Kuntz, Malinen, & Näswall, 2017; Armstrong & Talor, 2020). Uncertain and challenging environmental conditions have a significant impact on business. Hence, the organizational ability to adopt and implement an effective strategic plan becomes necessary to execute it successfully (Thierry, 2018; Dimba, 2010; Rodríguez-Sánchez, Guinot, Chiva, & López-Cabrales, 2021). Some previous studies have shown the link between SHRM practices and organizational resilience (Rehman et al., 2021; Lengnick-Hall et al., 2011). In addition, SHRM practices have an effect on organizational resilience (Bouaziz & Hachicha, 2018; Al-Ayed., 2019). Based on these argument, the hypothesized that:

**Hypothesis 2.** *SHRM practices have positive relationship with the organizational resilience.* 

# 3. Organizational resilience and sustainability performance

Organizational resilience is considered as an important factor for organizations' success during the turbulent and uncertain development of firms in an increasingly volatile, complex, and uncertain business world (Näswall, Kuntz, Hodliffe, & Malinen, 2013; McCann, Selsky, & Lee, 2009). Nowadays, Organizational resilience are critical dynamic capabilities that enable successful sustainability performance, especially in times of crisis such as the COVID-19 pandemic. Businesses need to be prepared for the competitive environment's challenges in sustainability and resilience (Corrales-Estrada, Gómez-Santos, Bernal-Torres, & Rodriguez-López, 2021; (Miceli et al., 2021; Arend, 2014). Sustainability performance has a long-term positive outcome, such as economic, social, and environmental performance (Chams & García-Blandón, 2019; Jamali, 2006). Resilience and sustainability are multifaceted paradigms that can enhance the resilience of a firm, and support its growth (Balugani, Butturi, Chevers, Parker, & Rimini, 2020; Feil, Schreiber, Haetinger, Strasburg, & Barkert, 2019). Previous studies have likewise found that organizational resilience has a positive effect on both the social and economic aspects of sustainability performance (Rai, Rai, & Singh, 2021). Organizational resilience emphasizes the adaptive capacity for renewal after crisis and enhanced sustainability (Larsson, Milestad, Hahn, & Von Oelreich, 2016). Organizational resilience has been identified as a critical factor in delivering sustainability and allowing businesses to thrive (Winnard, Adcroft, Lee, & Skipp, 2014).

**Hypothesis 3.** Organizational resilience has positive relationship with the Sustainability performance

# 4. Mediating role of organizational resilience

The meaning of resilience is traced back to the Latin word resilire, which means, "to jump back." The concept of resilience was introduced by Holling's (1973) paper in ecology and the environment. Holling (1973) defined it as the measure of its ability to absorb change and still exist. However, Bell (2019) and Hartmann et al. (2020) can be defined as organizational resilience reflecting an organization's ability to absorb, respond, and develop strategies to implement routines on disruptions originating from changes in the environment (Sanchez-Garcia, Nunez-Rios, & Lopez-Hernandez, 2020). Therefore, scanning the business environment can improve organizational resilience and make it way more competitive (YahiaMarzouk & Jin, 2022). Organizational resilience needs to develop under challenging conditions, which can enable effective business from crises, and even foster future success (Duchek, 2020; Cooper, Liu, & Tarba, 2014; Biggs, Hall, & Stoeckl, 2012; Cameron & Dutton, 2003). Organization resilience engage responses can build business transformative activities on disruptive surprises that are necessary for organizational survival (Lengnick-Hall et al., 2011). Organizational resilience has two dimensions—planned and adaptive (Prayag, Chowdhury, Spector, & Orchiston, 2018). Several past studies suggest that organizational resilience mediates the relationship between HRM practices and organizational performance (Lengnick-Hall et al., 2011; Aeknarajindawat, Aeknarajindawat, & Aswasuntrangkul, 2020; Nadeem, Riaz, & Danish, 2019; Cooke et al., 2021).

**Hypothesis 4.** Organizational Resilience positively mediates the relationship between SHRM practices and Sustainability performance

# Methodology

The study adopted a qualitative approach, mainly based on extensive analysis of the existing literature on organizational resilience. Researchers have conducted an extensive review of the literature in various databases, such as Google Scholar, Scopus, Elsevier, Emerald, and ProQuest. A total of 50 articles from 1997 to 2022 on SHRM practices, organizational resilience, and sustainability performance were selected and analyzed.

#### **Discussion and conclusion**

This paper develops a conceptual model of SHRM practices, organizational resilience, and sustainability performance. According to the literature review, both SHRM practices and sustainability performance were found to have important value that puts any organization on the path to competitive advantage and sustainability (Rockwell, 2019). However, SHRM practice is the most important part of a resilient organization by ensuring their skills, abilities, and behaviors are committed and motivated to achieve a sustainable competitive advantage (Kuntz et al., 2017; Armstrong & Talor, 2020). Organizational resilience is an important challenge for the development of firms in an increasingly volatile, complex, and uncertain business world (Näswall et al., 2013). Organizational resilience emphasizes the adaptive capacity for renewal after crisis and enhanced sustainability (Larsson et al, 2016). Organizational resilience needs to develop under challenging conditions, which can enable effective business from crises, and even foster future success (Duchek, 2020; Cooper et al., 2014; Biggs et al., 2012; Cameron & Dutton, 2003). Organizational resilience is critical to HR managers and employees from strategic human resource management practices (e.g., recruitment and selection, training and development, performance appraisal, and compensation systems) that enhance a company's successful sustainability performance and allow it to survive in the long run.

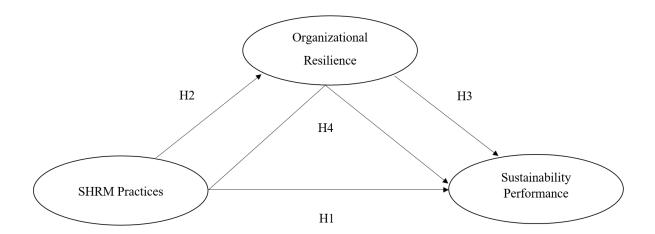


Figure 1 Proposed conceptual model

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# BOOK REVIEW SUCCESSION PLANNING STRATEGY



Author: Narongwit Saenthong

Reviewed by: Chawin Choemkhwan<sup>1</sup>

This 168-page book focuses on organizational management planning. The author's experiences while working as a consultant in various companies are presented in this book. In each organization, there are executives with different ideas and management approaches, as well as employees in different positions in order to perform their duties in each department. Thus, there are concepts, guidelines, and practices for personnel management. This book presents succession planning strategy by raising questions and explaining the culture of personnel management so that executives understand the nature and process of employee appointment and business growth preparation, which would help prevent skilled employees to resign and work elsewhere.

This book provides a wide knowledge of the succession concept by using simple language. The content is divided into four parts. The first part presents questions arising during the pre-succession system. The author raises questions about the succession system to look at the ideas of the executives of the organization, and suggests organizations to prepare for the event when a supervisor or an employee resigns. Promotion for potential employees is also recommended in order to retain the best employees for the organization. The author indicates the idea that employees who meet the conditions of the succession system should not be included in the management system. He also gives an explanation of the succession system that focuses on finding people to replace the incumbent, and the star management system that focuses on talent and potential employees. Interestingly, he stresses that the succession system is an essential issue in organizations and the executives need to be aware of it. He further explains why the supervisors of a department support their subordinates who are not skilled

<sup>&</sup>lt;sup>1</sup> Faculty of Business Administration, Rajamangala University of Technology Thanyaburi, Thailand. email: chawin\_c@mail.rmutt.ac.th

but have a lot of experience, and why they promote the subordinates from other departments instead of their own subordinates who understand their work better. Promotion is not merely the duty of the human resource department or any specific executive, but the duty of the management as a whole. According to the author, organizations should have a succession system for every position in the organization, especially important positions in the organization that are difficult to find or take a long time to train or develop. These guidelines can help the organization to adopt and develop the organization forward without affecting the performance. In certain organizations, the succession development system is decent, but cannot promptly resolve problems. From his perspective, allowing outsiders to take up positions is a better solution, but it is necessary to consider other issues and possibilities.

The second part of this book focuses on the succession management process. The first step is the process of executive committee appointment, which explains the roles and the benefit of the executive committee. Having a committee is not compulsory if the succession system meets the needs of the organization. The second step is to clearly determine the right and necessary positions that need to be developed in order to conveniently and suitably apply to each organization. The third step is to determine the qualifications. The key factor of the succession system is the "potential" based on knowledge, skills, beliefs, attitude, and personality that need to be assessed and formulated a human competency development plan. The fourth step is recruitment, which involves nominations, selection, and appointment. In the nomination process, a list of people related to the content of the work is considered in order to find the most suitable person. The fifth step involves development and evaluation. Evaluation of succession development needs to be comprehensively assessed in all aspects to ensure that no problem occurs after the promotion. The sixth step involves successor promotion. This step is greatly important since it may lead to a long-term impact due to one wrong decision.

The third part is the star management system. This strategy is used to hide the weakness of the successor system. The concept of this system involves seeking and developing employees with the potential to be with the organization, support the expansion of the organization, and benefit the organization in the future. Since this group of potential people may be young and have little experience, the star system is applied to hide the weaknesses of the succession system. However, it is unable to apply the two systems in an organization at the same time since it would cause confusion among employees whether which system is better and provides more opportunities for their growth and advancement.

The last part of the book discusses strategic ideas for managing the succession system. In the business world today and in the future, organizations have to encounter several crises similar to the COVID-19, which has quickly and severely affected various organizations. Therefore, the development of successors should not only focus on goodness and potential, but also on "strength". The aforementioned strategic concept of a succession management system should appropriately be applied to prevent the issue relevant to lack of workers, and enhance the smoothness of organizations while retaining skilled and capable employees for the growth of the organization.

The author emphasizes the strategic concept of succession management by giving examples from his experience. However, it is not necessary that organizations stick to the methods that have been effectively used in the past. New strategies that suitably meet the needs of the organization can also be adopted to prevent problems caused by the lack of employees, especially in important positions. Moreover, employees must be prepared for organizational growth.