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THE FACTORS AFFECTING INTENTION TO USE MOBILE PAYMENT IN CHONBURI OF THAILAND

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Burapha University

2021

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THE FACTORS AFFECTING INTENTION TO USE MOBILE PAYMENT IN CHONBURI OF THAILAND

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AN INDEPENDENT STUDY SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE MASTER DEGREE OF BUSINESS ADMINISTRATION

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The Independent Study of Yu Jixiang has been approved by the examining committee to be partial fulfillment of the requirements for the Master Degree of Business Administration of Burapha University

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KEYWORDS: MOBILE PAYMENT/ ATTITUDE/ SUBJECTIVE NORM/ TRUST/ ERCEIVED BEHAVIOR CONTROL/ INTENTION/CHONBURI/ THAILAND

YU JIXIANG : THE FACTORS AFFECTING INTENTION TO USE MOBILE PAYMENT IN CHONBURI OF THAILAND. ADVISORY COMMITTEE: SARUNYA SANGLIMSUWAN, Ph.D. 2021.

With the growing of mobile payment technology, there would be opportunities to introduce new products, new services, and new payment tools such as mobile payment into Thailand, especially Chonburi city that is the main city of eastern economic corridor. Also, there had been an increase of smart phone in Thailand. There is relevance between the number of smart phone and mobile payment since it is likely that the smart phone users become mobile payment users. These developments in the growth of smart phone plus the development in mobile payment technology offered the opportunity to study about factors that influence intention to use mobile payment in Chonburi of Thailand.

This study aims to study the level of intention to use mobile payment and to examine the factors that influence intention to use mobile payment in Chonburi of Thailand. Four independent variables including attitude, subjective norm, trust, perceived behavior control are selected from the literature reviews. Questionnaires are answered by 400 people who own a smart phone and live in Chonburi but never use mobile banking. Descriptive statistic and inferential statistic such as simple liner regression are employed to analyze data. The results show that there is a high level of intention to use mobile payment. The findings illustrate that perceived behavior control has the most significant effect following by trust and attitude while subjective norm has the least significant effect on intention to use mobile payment.

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Lastly, I would like to thank to those participants who are willing to answer my questionnaires, and help me to complete my research.

Yu Jixiang

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CHAPTER 1
INTRODUCTION

Background of the study

Mobile payments are defined as payments carried out with at least one mobile device. (Jan & Yves, 2007), Mobile payment refers to a payment for goods, services, and bills using a mobile device using wireless and other communication technologies (Dahlberg, Mallat, Ondrus, & Zmijewska, 2008). Due to the increasing mobility of today's modern society, the number of the mobile phone has sharply increased in recent years, and the mobile internet technology industry has grown significantly. The mobile phone has become a part of daily tool for people all over the world (Hwang et al., 2017). In particular some growth forecasts for mobile payment services have been very positive.

The mobile payment situation in Thailand

On Feb 2018, The Bank of Thailand (BOT) published data showing a surge in the use of mobile and internet banking in Thailand. Mobile banking transactions is increasing rapidly. Thailand has the second-fastest growth for mobile payments in Southeast Asia behind Vietnam, which is the global leader, according to the Global Consumer Insights Survey 2019. According to Digital 2019 Thailand, the total population is 69.24 million with half living in urban areas. The mobile phone penetration level is rather high reaching 133%. According to the figures provided by the Nikkei Asian Review, the country has the highest level of financial penetration among Southeast Asian nations (67%).

Due to the advances in mobile technology and the reduction of technical barriers for mobile payments, experts believe that this means of payment will eventually become more commonplace and simpler to use in the coming years. According to a recent study from Accenture (Accenture Consulting, 2015), consumers see, in the next years, a decrease in the use of traditional payment instruments in favor of an increase of digital payments. In other hand, this growth is the fact that consumers in more developed countries frequently make small payments from their mobile phones for purchases of digital content. In developing countries, the poor

quality of existing means of payment opens a great window of opportunity for the future use of mobile payments (Bourreau & Verdier, 2010).

There are 733 million people use Mobile payment in China base on the data from iiMedia Research. It's still a cash trade market in Thailand, for this reason, in light of Thailand market, notwithstanding abundance of studies on mobile payment, little previous studies were done to comprehend specific responses of mobile users in Thailand markets to mobile payment system, the researcher already analysis a lot of research, and found that they use trust in their researches too, so trust factor may have significant influence to intention to use mobile payment that we want to know, and little previous researches used TPB model together with trust theory to analysis consumer's intention to use mobile payment,. So, this research aims to analysis the determining factors by focusing on the consumers' behavior and use TPB theory combine with trust theory to investigate how do factors affecting the intention to use mobile payment in Chonburi of Thailand.

Research question

The main research question of this study is:

What are the factors affecting the intention to use the mobile payment in Chonburi of Thailand?

Research objectives

1. To investigate the effect of attitude on intention to use mobile payment in Chonburi.
2. To investigate the effect of subjective norm on intention to use mobile payment in Chonburi.
3. To investigate the effect trust of mobile payment on intention to use mobile payment in Chonburi.
4. To investigate the effect of perceived behavioral control on intention to use mobile payment in Chonburi.

Significant of the research

1. Significant to know the factors affecting intention to use mobile payment in Chonburi of Thailand.

To know the factors affecting intention to use the mobile payment in Chonburi of Thailand.

2. For Banker, government and intrapreneur adopting mobile payment

The results have contributed to banker or intrapreneur to know the elements for the people to use the new technology, invest exactly and effectively.

Hypothesis

H1: Attitude has a significantly effect on intention to use mobile payment in Chonburi;

H2: Subjective Norm has a significantly effect on intention to use mobile payment in Chonburi;

H3: Trust of mobile payment has a significantly effect on intention to use mobile payment in Chonburi;

H4: Perceived behavioral control has a significantly effect on intention to use mobile payment in Chonburi;

Scope of the research

1. Scope of content

The research will apply two theories to support, the first theory is planned Behavior (TPB), which can help the researcher to know how the people change their intention to use or to purchase product (Icek, 1988); and the second theory is trust theory. The research combines two theories, and analysis how the four independent variables attitude, subjective norm, trust, perceived behavioral control, effect on intention to use mobile payment.

2. Scope of population

Data will be gathered from the people who use smart phone and live in Chonburi but never use mobile banking.

3. Scope of time

Time Scope: During Jan 2019 to Mar 2021

Definition

Attitude refers to how people feel to use mobile payment, it will show the positive or negative feelings that people have on the intention to use mobile payment, that is, the attitude formed by the people's evaluation of the specific behavior after conceptualization.

Subjective Norm refers to the social pressure that people feels about whether to use mobile payment, that is, a people influence other people intention when the people know or realize other people use mobile payment.

Perceived Behavioral Control refers to the obstruction of a people's past experience and expectations about mobile payment. When a people believes that he has more resources and opportunities, and the fewer obstacles he expects, the behavioral control is controlled, he may intend to use mobile payment.

Trust refers to the people’s subjective belief that the probability of using a certain technology can achieve the desired result. The trust not only the desired trust also the product or service trust environment. Use mobile payment with safe and intimate environment.

Intention refers to the consumer's judgment on the subjective probability of using mobile payment, which reflects the people 's willingness to use mobile payment.

Framework

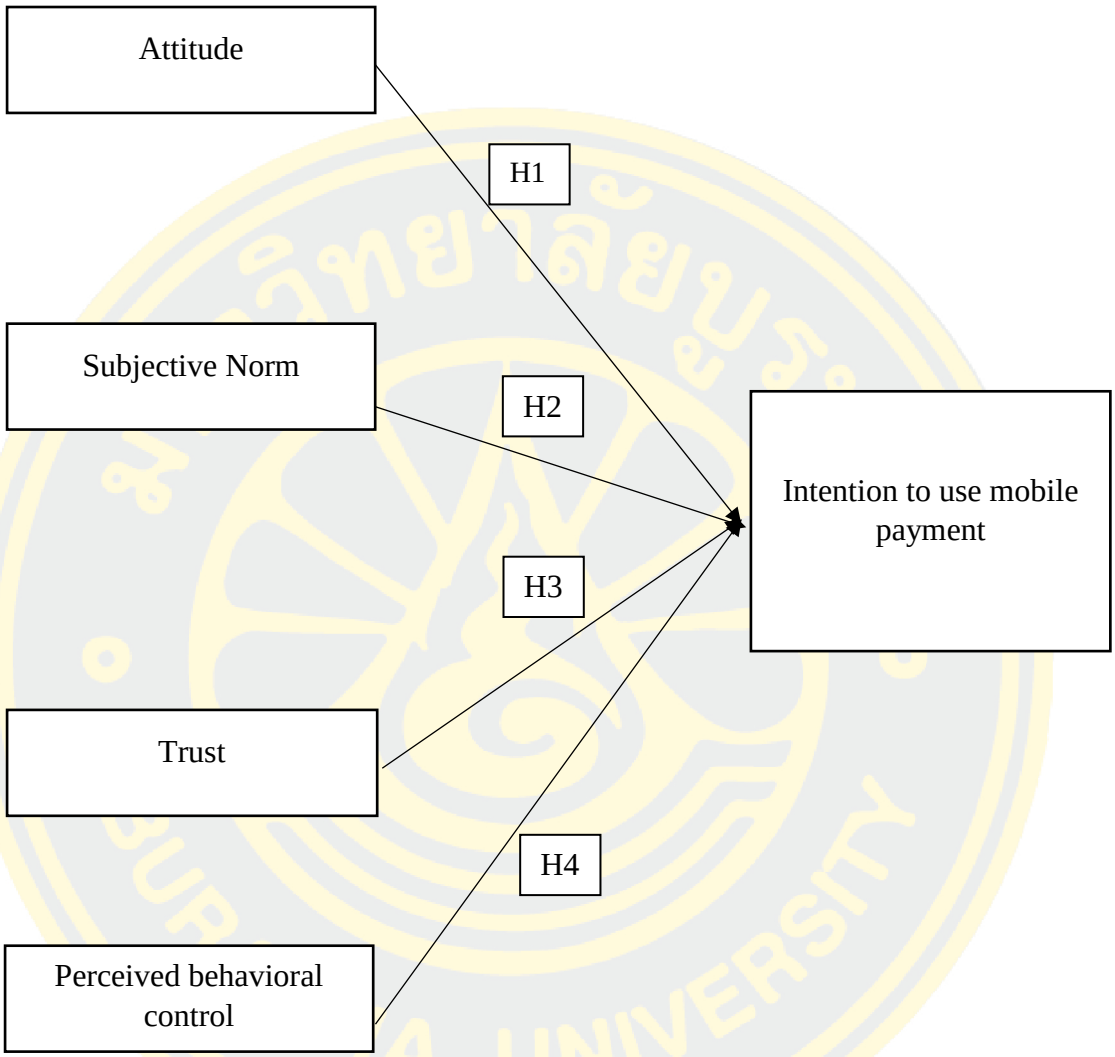

Figure 1 Framework

All the Three key determinants from the TPB model will be included as independent variables for the research, specifically attitude, subjective norm, perceived behavioral control. Apart from this, trust also will be adopted as the additional variable to study the resistance factors affecting intention to use mobile payment in Chonburi of Thailand

CHAPTER 2
LITERATURE REVIEW

This chapter will study on the people's view to know what are the factors that effect on intention to use the mobile payment in Chonburi of Thailand, this research focus on the topic below:

1. The theory of planned behavior
2. Trust theory
3. Attitude
4. Subjective norm
5. Trust factor
6. Perceived behavior control
7. Intention to use

The theory of planned behavior, TPB

The theory of planned behavior (call TPB) was mentioned by ICEK AJZEN on 1988, TPB is rear of the Theory of Reasoned Action (TRA) which was made by Aizen and Fishbein on 1975, as what Aizen found that, the consumer's intention is not 100% base on the consumers' willing, but controlled, so he extended the theory of reasoned action, add a new index "Perceived Behavior control what is a new concept, that set a new theory" theory of planned behavior, TPB";

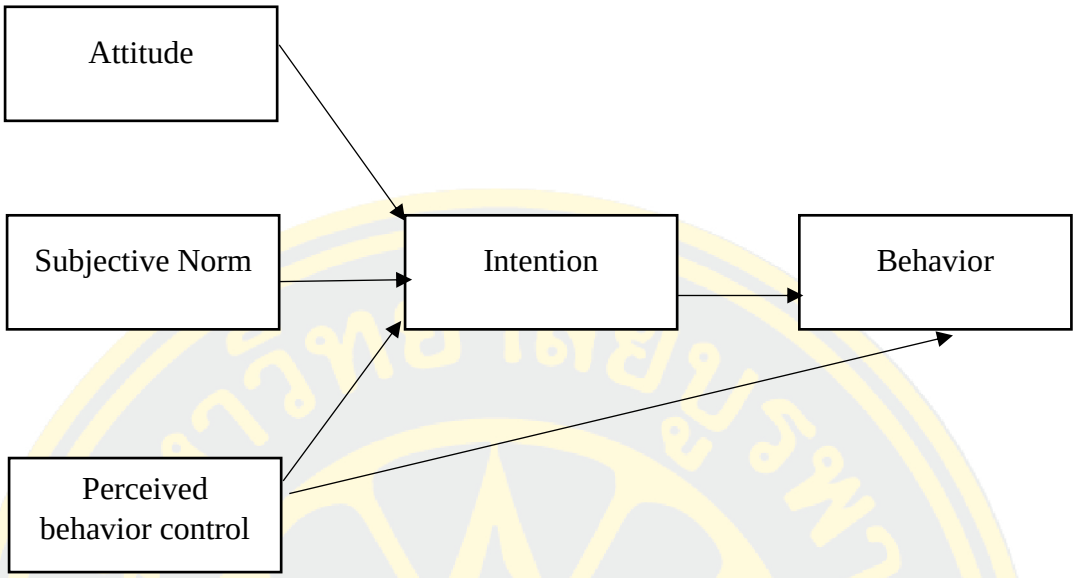

Figure 2 TPB model

Attitude is the consumers positive or negative feeling to the behavior, in others words the attitude is founded by the consumers evaluated the behavior, so the attitude always be proved for how important of the attitude effect on the consumers' intention and behavior.

Subjective norm is mean the consumers face to specific behavior undertake the society press, or the effect from the other consumers or salient individuals or groups may have a huge effect on the consumers intention and behavior.

Perceived behavioral control is mean personal experience or perceived that prevent the consumers intention, when consumers think they get more source or chance, they will have less prevented, and will make them have a strong perceived behavioral control. The effect has two types: the first is intention to use, the second is to anticipate behavior.

Behavior intention is mean consumers' subjective idea to adopt specific behavior, this shows how the consumers make intention for specific behavior.

Trust theory

Consumer perceptions of security have increased lately, the concept of trust has received several definitions by researchers. An important facet of mobile payment, however, is consumer trust. Trust has received considerable attention in the electronic commerce context due to the great uncertainty and risk involved in online transactions (Harris et al., 2016; Gao & Waechter, 2017). Trust is the foundation of most financial transactions and is built on a multitude of factors such as the consumers' perceptions of security of the mobile payment system. Studies show that user perceptions of control are an important ingredient of transaction trust. Ondrus and Pigneur posit that a high level of trust in mobile payments is more of a basic requirement than a competitive advantage especially when fraudulent activities are frequent and financial risks are high.

Attitude

According to Fishbein and Ajzen (1975), attitude can be defined as "an individual's positive or negative feelings about performing the target behavior". According to Nysveen (2005), a positive attitude would increase the customer intention to use mobile services. The combination of these components can be a key point to attract more customers to the functionality of smartphones (Dahlberg et al., 2008). Therefore, intention is described as the costumers' willingness to try and the individual's effort to perform a particular behavior.

Past research has established that beliefs and attitudes are predictors of behavioral intention (Wang, Sun, Lei, & Toncar, 2009). Intention is often used to understand how attitude can have an effect on actual behavior (Huang, Lee, & Ho, 2004), and how negative attitude would lead to unfavorable intention and behavior (Stevenson, Bruner, & Kumar, 2000). Attitude have significant effect on intention to wards mobile payment system (Hiram, Yusman, Lona, & Wee, 2015). In the research understanding customer intention to use mobile payment services in Nanjing, China (Phuah & Ting, 2018), emphasizes the fact that attitude plays a vital role is shaping customer intention and therefor it is necessary to mitigate the financial, technical, security and privacy risks that are associated with mobile payment.

Attitude is a belief that an individual has gained as a result of adopting a specific behavior (Ajzen & Fishbein, 1980). The more positive attitude towards the behavior, the greater the intention to adopt a specific behavior. This also states that the behavior of an individual is motivated by attitude. TPB theory also explains that intention is a function of attitude (Shih & Fang, 2004).

According to Polatoglu and Ekin (2001), a consumer's decision to adopt a product depends on his attitude toward the product, that is, his beliefs of its purpose and perceived importance, and according to Shaizetulaqma and Khor (2019) show that attitude have positive and significant effect on intention to use mobile payment, attitudes have a positive effect on use intentions toward mobile banking (Kyungtag, Jeongwoo, & Mijin, 2017). Consequently, in the online environment, it is expected that attitude facilitate transactions and reduce the barriers to the adoption of the terms of trade (Pavlou, 2002a, b), and more specifically, in the case, favor the intention to use mobile payment systems (Schierz, Schilke, & Wirtz, 2010). In line with previous research (Hiram, Yusman, Lona, & Wee, 2015), we propose a similar relationship between attitude and intention. This results in the following hypothesis:

Hypothesis1: Attitude have a significantly effect on intention to use mobile payment in Chonburi;

Subjective norm

Fishbein and Azjen (2005) defined subjective norms as individual perceive that most people approve the behavior that he should or should not perform. Subjective norms are considered as one of the essentials in social influence in form of social pressure (Albarracin, Fishbein, Johnson, & Muellerleile, 2001; Ajzen & Fishbein, 2005; Fishbein & Stasson, 1990). Subjective norms are determined by the grouping of both individual's motivation to agree and follow the referents and also normative beliefs about the reference groups (Neighbors, Lee, Lewis, Fossos, & Larimer, 2007). Bhattacherjee (2000) had categorized subjective norms into two which are interpersonal and external influence. The external influence example is the expert reviews and opinions or mass media and the interpersonal influence are family members, friend and relatives.

Subjective norm is defined as the degree of an individual's perception of what people important to him consider on whether he should adopt a system or perform a certain action (Venkatesh & Bala, 2008). This social construct is composed of two basic underlying sets of factors. First are the beliefs that the consumer has of the people considered as a reference, and second is the motivation of the person to behave according to the desires of the people of reference (Herrero, García, & Rodríguez, 2005). From this point of view, many authors have identified a direct and positive link between subjective norms the intention to use (Shin, 2009).

Past research has established that subjective norm will have positive effect on intention towards mobile payment system (Hiram, Yusman, Lona, & Wee, 2015) and (Francisco, Iviane, & Francisco, 2017), (Helge, 2001). on the contrary subjective norm has no influence on costumer intention to use mobile payment service (Phuah, Phuah, & Kelly, 2018). One more research said Subjective norms had a significant influence on potential users' intentions to use m-payment (Chanchai, Carmine, & Michelle, 2016). Therefore, we propose the following hypotheses:

Hypothesis2: Subjective Norm have a significantly effect on intention to use mobile payment in Chonburi;

Trust

Trust has been the focus of many studies over the past decades. Various academics have been studying the effects of trust on mobile payment systems acceptance. A study conducted by Duane, O'Reilly and Andreev (2014), highlighted that 'trust is the most powerful factor influencing consumers' willingness to use Smart Phones to make M-Payments'. This is consistent with previous research conducted by Xin, Techatassanasoontorn and Tan (2013, p. 1), which pointed out that 'trust is a crucial factor of consumer's intention to adopt mobile payment'. Dastan (2016) highlighted that perceived trust have a positive impact on the adoption of mobile payment which was also endorsed by Mahad, Mohtar and Othman (2015, p. 6) who indicated that 'perceived trust has a significant positive effect on the intention to use of mobile banking'. Finally et al. (2016, p. 1) suggested that 'emotional trust in mobile payment has a much stronger effect on consumers' intention to use, while

cognitive trust in mobile payment has both direct and indirect effects on intention to use'.

Thus, trust is an essential factor on mobile payment adoption and building trust has become a critical factor that have influence on mobile payment systems in so far as 'maintaining a relationship with customers is difficult, especially when there are less face-to-face contacts' (Bourreau & Valetti, 2015, p. 31). In this context, it is essential for service providers 'build users' initial trust in order to facilitate their usage of mobile payment' (Zhou, 2014, p. 1519).

However, despite the importance of trust in mobile payment, various authors have been suggesting that trust has influence on mobile payment adoption. Killian and Kabanda (2017, p. 1), for instance, highlighted that trust significantly affected intention to adopt mobile payment by South African middle-class citizens. Lwoga and Lwoga (2017, p. 1) stated that 'm-payment knowledge, trust and compatibility predicted perceived ease of use of m-payment services. Chen and Li (2016, p. 1) pointed out that 'institutional-based trust shows a positive impact on post-adoption perceived usefulness and a negative impact on post-adoption perceived risk'. Yang and other (2015, p. 9) have shown that 'in the current stage of China's online payment, consumers have built up trust first as an antecedent of their perceived risks'. Gao and Waechter (2015, p. 1) suggested that 'initial trust positively affects perceived benefit and perceived convenience, and these three factors together predict usage intention'. Finally, Zhou (2015, p. 56) emphasized that 'switch intention may be affected by the enablers, which include trust, satisfaction and flow'. Therefore, we propose the following hypotheses:

Hypothesis3: Trust of mobile payment have a significantly effect on intention to use mobile payment in Chonburi.

Perceived behavior control

Perceived behavior control is defined as individual's perception of ease or difficulty in performing certain behavior (Ajzen, 1991). If the user has higher control of the perceived behavior, then performing a certain behavior becomes ease (Zhong, Luo, & Zhang, 2015). A number of studies have examined the influence of perceived behavior control on continuance behavior and concluded that there is positive effects

between the variables (Lee, 2010; Zhong et al., 2015). In this study, increased behavioral control (for instance through acquiring skills to harness the services) will enable mobile money users to find the services easy to use. Subsequently, individual's likelihood to continue using mobile money services will increase.

Perceived behavioral control is the extent to which a person believes that he/she has been controlled for personal or external factors that may facilitate or hinder the performance of the behavior (Ajzen, 1991). Perceived behavioral control refers to an individual's perception of the presence or absence of the necessary resources, or opportunities necessary to perform a behavior (Ajzen & Madden, 1986). Perceived behavioral control describes users' perceptions if they have the necessary resources such as time and money (external factors), capabilities such as the ability, confidence and self-efficacy (internal factors) to successfully perform the behavior.

Some previous studies have been discussed that there are no consistent findings regarding this relationship in which some studies have found that perceived behavioral control is positively and significant related to behavioral intentions (Harrison et al., 1997; Jasman et al., 2005; Khalil & Pearson, 2008; Lu et al., 2009; Mathieson, 1991; Taylor & Todd, 1995a, 1995b; Truong, 2009). In the context of mobile services, the study also verifies that perceived behavioral control positively and significant influence behavioral intentions (Hsu et al., 2006; Lee, 2010; Pedersen, 2005; Quan et al., 2010; Shin et al., 2009). Another study found there is no significant relationship between perceived behavioral control and intention (Suntompithug & Khamalah, 2010; Laohapensang, 2009; Nik & Sentosa, 2008). Therefore, this study depicts that:

Hypothesis4: Perceived behavioral control has a significantly effect on intention to use mobile payment in Chonburi.

Intention to use mobile payment

Intention is the component that expected actually influenced by the element of attitude of the individual and subjective norms. Besides that, intention can serve as motivational factors that influence behaviors on how much effort people are willing to try that resulted to carry out the behavior. According to research by Sun (2003) which had proved that behavioral intention that use to measure of actual usage is valid and

reliable. Several studies have been theoretical to have better understanding the relationship between belief structures and backgrounds of intention by examining methods to decomposing attitudinal views (Chau & Hu, 2002; Taylor & Todd, 2001). According to Dahlberg and Holmberg (2014), Theory of Planned Behavior (TPB) model had pointed out that diffusion or acceptance theories provide determinants in evaluating the payment habits. Other than that, TPB also is a model that measure intention to adopt payment habits based on evaluating beliefs. Behavioral intention is affected by attitude based on performance, or subjective norm and also by perceived behavioral control (Chiou, 1998).

Intentions are meant to affect by few determinants. Firstly, attitude is related to consequences of people's behavior. Secondly, subjective norm is individual's enthusiasm of performance in accordance with the referents. The third determinants are perceived behavioral control of the important person in a decision making that might affect another's behavioral intentions.

CHAPTER 3
RESEARCH METHODOLOGY

This study was a survey study aimed to discover the four factors that effect on intention to use mobile payment in Chonburi of Thailand: the researcher has determined the following methods of research.

1. Research design
2. Population and sample group
3. Developing research instrument and quality of research instrument
4. Construction of reach tool
5. Data collection
6. Data analysis

Research design

The research will outline a plan to conduct a quantitative approach. The researcher make survey questionnaires through online and distributed questionnaires to participants with the purpose of collecting raw data online in time, so as to explore factors attitude、subjective norm、trust and perceived behavior control effect on intention to use mobile payment in Chonburi of Thailand. The research will use descriptive statistic, inferential statistics such as simple linear regression, which is statistical, evaluate the collected data whether independent variable influenced dependent variable.

1. Independent variable

Base on the literature review above, this research contains one model: TPB and extra factors – Trust; as this research design for the intention to use mobile payment in Chonburi of Thailand, the new model include four independent variables (IDPT):

IDPT1: Attitude

IDPT2: Subjective Norm

IDPT3: Trust

IDPT4: Perceived behavior control

2. Dependent variable

This research only study one dependent variable which come from the model TPB and Trust that study the intention to use mobile payment; in this research will conduct the dependent variable (DPT): intention to use the mobile payment, also the final purpose of the research.

DPT: Intention to use mobile payment

Population and sample group

The population used in this research was the people who use smart phone and live in Chonburi but never use mobile banking. The reason for choosing the population because the research would like to show what is the factor that the people who never use mobile banking intent to use mobile payment, meanwhile Chonburi belong to EEC area, it's a potential of province adopt mobile payment as the smart phone was popularized in Chonburi province.

1. Sample size

Due to the population of this research is the people who use smart phone but never use mobile banking and live in Chonburi of Thailand, the number of populations cannot know exactly, so this research uses non-probability sampling with a convenience sampling technique.

This research the researcher chose to use calculating the sample size from the sample size formula of Cochran, WG 1963. due to the large population and exactly unknown population numbers so calculating the sample size can be obtained. By determining the confidence level of 95 percent and the level of error of 5 percent. The formula for calculation used in this study is

$$n = (P\ (1\text{-}P)\ Z^2)/E^2$$

Where

n represents the sample size;

P represents the proportion of the population that the researchers are random .50;

Z represents the level of belief that the researcher has set. Z is equal to 1.96 at the confidence level of 95 percent (level .05);

E represents the maximum error occurring = .05

Substitute $n = \frac{(.5\ 0)\ (1 - .5\ 0)\ (1.96)^2}{(.05)^2}$

$= 384.16$

So, the sample size should use at least 384 people with error not more than 5 percent at 95 percent confidence level for ease of evaluation. So, the researcher will use a total of 400 sample sizes for investigating.

2. Sample selection

Purposive sampling method will be use in sample selection process, as this research use screening questionnaire to focus on particular characteristics of sites in order to make comparisons between them. In this study, preference was given to the Thai citizens so that the findings can be generalized in the Thai context. Besides, this study also has placed an important emphasis on specific population because we can know exactly what are the real factors affecting intention to use mobile payment.

Research instrument

The research instrument had three parts. The questionnaires were translated to Thai language by the Thai people who master English and ensure the words can be understood by Thai residents correctly.

The first part is Screening question, to defined the sample correctly. There are 3 questions to defined the participants. The second part about demographic of the participants, including gender, age, income. The third part to seventh part, the participants are required to answer based on a 5-point Likert scale, ranging from 5 “strongly agree” to 1 “strongly disagree” regarding their perception to intention to use mobile payment. In the third part to seventh part, there are five sections for participants to show their level of agreement and disagreement for each variable’s statement of this study.

Table 1 Summary of questionnaire design

Section	No. of Questions	Questions	Scales used
Part 1	3	Screening question	Nominal
Part 2	3	Demographic profile	Nominal and ordinal scales
Part 3 to 7	27	Independent and dependent variables question	Interval scales

1. Sources of the questions

Table 2 Sources of the questions

Variables	Items	Descriptions	Sources
Attitude effect	1.1	Using mobile payment is very convenient.	Adapted and modified from Ajzen, 1991; Har, Cyril and Oly (2011)
	1.2	Mobile payment provides a wide range of products.	
	1.3	Mobile payment is beneficial to use.	
	1.4	I have positive opinion in mobile Payment though mobile phone;	
Subjective norms	2.1	Most people who are important to me think that I should use mobile payment.	Adapted and modified from Taylor and Todd (1995), Fishbein and Ajzen (1975)
	2.2	I think it is important that everyone in the society should use mobile payment.	
	2.3	People whose opinions I value will prefer me to use mobile payment	
	2.4	People who are important to me will support me use mobile payment	

Table 2 (Cont).

Variables	Items	Descriptions	Sources
Trust	3.1	A trustable software will ensure payment modes available is reliable.	Adapted and modified from Pavlou (2003); Teoh, Lin and Chua (2013)
	2.2	A software that wants to keep promises and obligations will attract me to use mobile payment more often.	
	3.3	I will use mobile payment the terms and Conditions are clear.	
	3.4	I believe that mobile payment parties are honest;	
	3.5	I believe that mobile payment parties will offer a secure mobile payment service;	
Perceived behavior control	4.1	I can use the mobile payment so good when in payment transaction;	Adapted and modified from Tan and Teo, 2000; Chen 2007; Kang and other, 2006; Miler, 2005; Armitage and Other, 1999 as cited in Al-Debei and other, 2013
	4.2	Using mobile payment is entirely within my control	
	4.3	I have the resources, knowledge, and ability to use mobile payment;	

Table 2 (Cont).

Variables	Items	Descriptions	Sources
Intention	5.1	I predict I will use mobile payment in the next 6 months	Adapted and modified from Venkatesh and Davis (2000)
	5.2	I plan to use mobile payment in the next 12 months	
	5.3	I think that in the future I will use mobile payment rather than any other available payment method to conduct a transaction.	
	5.4	I have intention to use mobile payment in Thailand.	

2. Scale measurement

In this research scales of measurement involved in the statistical analysis can be categorizes into three common groups which is nominal, ordinal and interval scale; these are simply ways to group different types of variables. In part one if have and us any smart phone, if live in Chonburi, if never used mobile banking will be asked as screening question. In part 2 gender, income status and employee status are belong to nominal scale, and age and salary status belong to ordinal scale. For part 3 to 7, this research uses 5-point Likert scale that belong to interval scale measurement.

Table 3 Summary of measurement scale used

Items	Measurement	Scale of measurement
Gender	Nominal	Dichotomous scale
Age	Ordinal	Category scale
Employment status	Nominal	Category scale
Salary status (Monthly)	Ordinal	Category scale
Attitude	Interval	5 – point Likert scale
Subjective norms	Interval	5 – point Likert scale
Trust	Interval	5 – point Likert scale
Perceived behavior control	Interval	5 – point Likert scale
Intention	Interval	5 – point Likert scale

Research tool

The researcher request's advisor examined the questionnaire from the review of relevant documents and related researches and take it to test the validity, and check the suitable wording and language using in order to revise before questioning in the real data collection. Then, the researcher had three experts in the field of Business Administration to authenticate the items in the questionnaires by using the Indexes of Objective Congruence (IOC) scores on a range from -1 to 1. The three experts include:

1. Dr. Naruemon Choochinprakarn
2. Dr Pasuta phunyathip
3. Dr Supote Srinutapong.

Any items whose scores are less than 0.5 are revised. In contrast, any items whose scores are equal or higher than 0.5 are retained.

Congruent = 1

Questionable = 0

Incongruent = -1

In order to prove that the questionnaires are applicable to the topic, the formula below is used:

$$IOC = \frac{\sum R}{N}$$

$\sum R$ = Total Expert Opinion Score

N = number of experts

IOC = Consistency between the objective and content or questions and objective

$\sum R$ = Total assessment points given from all qualified experts.

N = Number of qualified experts.

The consistency index value must be at least 0.5 or above to be accepted. After receiving the assessment results, the questions were modified to ensure that each question has a consistency index value greater than 0.5.

When the researcher edited the questionnaire according to the person have already identified the researcher will take a set of questionnaires to test the radiality (Reliability test) by distributing questionnaires to the people who live in Chonburi of Thailand online. The data were then analyzed for Cronbach's alpha coefficient (Cronbach, 1970) using a package program and determined the reliability based on coefficient criteria. The Coefficient Cronbach's Alpha should be is equivalent to or greater than 0.7 to guarantee the reliability of the research instruments (Pallant, 2013, p. 104). So, the question is plausible.

Table 4 The results of the reliability test of the variables using the alpha coefficient

variable	Cronbach's Alpha
1. Attitude	0.955
2. Subject Norm	0.965
3. Trust	0.951
4. Perceived behavior control	0.945
5. Intention to use mobile payment	0.949

Data collection

Data collection method refers to the process of collecting valid data for the target variables in an established systematic fashion. In this research, the research data collection occurred in two phases.

Phase one: Pre-test

The researcher did the pre-test in order to find the reliability of questionnaires by examining Cronbach Alpha. 30 staffs that match standard of population from LLIT (Thailand) Co., Ltd. were selected for the pre-test.

Phase two: Questionnaire distribution

After the validity and reliability of questionnaires had completely been controlled and checked thoroughly, the researcher administered the questionnaires to the people who live in Chonburi by survey online. Then they were collected through online by the researcher to analyze and interpret those data until the people who can answer the questionnaire reach to 400 people.

Data processing

1. Prepare a letter requesting permission from an agency that wants to collect information, the Faculty of Management and Tourism will issue a request for permission.

2. Clarify project details to agencies who wish to collect data to inform the informant that this data collection is aimed at studying the factors affecting intention to use mobile payment in Chonburi of Thailand.

3. A questionnaire was sent to people who live in Chonburi of Thailand, and ask them submit result through online until the participant until 400 persons.

4. The investigator collect all questionnaires from online system and check the completion of each questionnaire. And proceed to the next step.

5. Researcher Bring the information that has been verified for completeness and correctness into the code. And then taken to process to the next statistical package

6. Record the answer code in the questionnaire. To process using a ready-made program SPSS (Statistical Package for Social Science).

Data analysis

After collecting data from Questionnaire completed is the preparation of data for data processing and analysis by using statistical packages by using statistics for data analysis as follows.

1. Descriptive statistics

Descriptive statistics, including the frequency, percentage, Mean and standard deviation to describe the general nature of the personal data. And research variables in the model.

2. Inferential statistics

In this study, Person Correlation test and simple Linear Regression is used to determine the strengths and association between the dependent and independent variables.

2.1 Pearson correlation coefficient analysis

Person Correlation test is applied in the study to examine the strength and direction between two variables and is represented by symbol r (Malhora & Peterson, 2006). The coefficient value is always between -1 to +1. The "+" symbol indicate positive relationship whereas the "-" symbol indicate for negative relationships. The general rule use to interpret the Pearson Correlation analysis is shown below Table 5:

Table 5 Rule of thumb for Pearson correlation analysis

Coefficient Range	Correlation
± 0.91 to ± 1.00	Very Strong
± 0.71 to ± 0.90	High
± 0.41 to± 0.70	Moderate
± 0.21 to ± 0.40	Small but definite relationship
± 0.00 to ± 0.20	Slight, almost negligible

2.2 Simple linear regression

Simple linear regression is a linear regression model with a single explanatory variable. That is, it concerns two-dimensional sample points with one independent variable and one dependent variable (conventionally, the x and y

coordinates in a Cartesian coordinate system) and finds a linear function (a non-vertical straight line) that, as accurately as possible, predicts the dependent variable values as a function of the independent variable. The adjective simple refers to the fact that the outcome variable is related to a single predictor.

Consider the model function:

$$Y = \alpha + \beta X$$

Where Y = intention to use mobile payment

α = constant

β = Regression coefficient.

X = independent variables.

This research uses the linear regression to test the hypotheses which we proposed in theory section. We can find the relationship between independent and dependent variables from the standardized path coefficient. A higher coefficient of the independent variable means that the effect on the dependent variable is bigger (Pallant, 2010). If the absolute t-value is higher than 1.645 at 95% confidential interval (95%CI), it means that the independent variable has a statistically significant effect on the dependent variable (Pallant, 2010). While, if the p-value is lower than 0.05 at 95% confidential interval (95% CI), which indicates that the independent variable has a statistically significant effect on dependent variable (Studenmund, 2006, p. 129).

Linear simple regression is used to test the relationship between one dependent variable and one independent variable. Based on the model, The research proposed several hypotheses, of which H1 to H4 are required to be examined using linear simple regression.

CHAPTER 4

DATA ANALYSIS

In analyzing data for research study on the factors affecting intention to use mobile payment in Chonburi of Thailand by analyzing the hypothesis of the research. In order for this chapter to be systematic, the researcher has divided this chapter into 2 parts as follows:

Part 1 Descriptive statistical analysis

1.1 Analyzing respondents' personal factors

1.2 Analysis of mean and standard deviation on the factors affecting intention to use mobile payment in Chonburi of Thailand.

Part 2 Inferential analysis to test the hypothesis

2.1 Data analysis to test hypothesis in research with simple regression analysis.

2.2 Summary of hypothesis testing.

The symbol for use in the analysis:

In order to present the analysis results to have a consistent understanding of the symbols used in this research. The researcher has defined symbols used to represent variables and research statistics according to the table 6 as follows:

Table 6 Show symbols used to represent statistics.

The symbol	Meaning
n	The number of samples used for analysis.
$\bar{X}$	The arithmetic means of the data obtained from the sample.
SD	Sample standard deviation
t	Mean significance test value 2 groups (t-test)
p-value	The probability of accepting the hypothesis
H_0	Null hypothesis
H_1	Alternative hypothesis
b	Regression coefficient of predictors in raw scores
β	The regression coefficient of the predictor in standard scores.
R	Correlation coefficient
R^2	Forecasting coefficient
Adjusted R^2	Forecasting coefficient when adjusted
Std. Error	Discrepancy or error
*	Statistical significance level at the.05

Descriptive analysis

1. Results of analysis on factors of respondents

Table 7 Number and percentage of personal factors information

Personal factor	Number (n = 400)	Percentage
Gender		
male	176	44.00
female	224	56.00
Total	400	100.00
Age		
25-30 years	171	42.75
31-40 years	127	31.75
41-50 years	60	15.00
51-55 years	42	10.50
Total	400	100.00
Monthly allowance		
No income	19	4.75
Less than 10000 baht	52	13
Over than 10000 and less than 30000 baht	198	49.5
Over than 30000 baht	131	32.75
Total	400	100.00

From the table 7 data on the number and percentage of respondents show that all respondents 400 people with the following analysis results

Gender

The majority of respondents surveyed that be classified by gender as female 224 people (56%) and 176 males (44%), respectively.

Age

The majority of respondents surveyed that be classified by age, aged 25-30 years have171(42.75%), aged 31-40 years have 127 people (31.75%) and age 41-50 years have 60 people (15%), and 51-55 years have 42 people (50%), respectively.

Income

The majority of respondents surveyed that be classified by 198 persons (49.50%) over than 10000 and less than 30000 baht group, 131 persons (32.75%) belong to over than 30000 baht group, 50 persons(13%) are less than 10000 baht group, and 19 persons (4.75%) no income group.

1.2 Analysis of mean and standard deviation on factors affecting intention to use mobile payment in Chonburi of Thailand.

Analysis of mean and standard deviation of factors affecting intention to use mobile payment in Chonburi consists of 4 factors: attitude, subject norm, trust, perceived behavior control by finding the basic statistics. Including Mean, standard deviation (SD), along with interpretation criteria as follows: $\bar{x}$

Mean	Interpretation of results
4.21 - 5.00	Most agree
3.41 - 4.20	Agree
2.61 - 3.40	Moderate
1.81 - 2.60	Less agree
1.00 - 1.80	Least agree

The details are as shown in the table 8 to Table 12 as follows

Table 8 Mean and standard deviation of attitude

Attitude	X	SD	Level	Rank
1. Using mobile payment is very convenient.	4.4575	.66656	Most agree	4
2. Mobile payment provides a wide range of products.	4.6600	.52924	Most agree	2
3. Mobile payment is beneficial to use.	4.7075	.54561	Most agree	1
4. I have positive opinion in mobile payment though mobile phone	4.6325	.45661	Most agree	3
Total average	4.6325	.41427	Most agree	-

From table 8, it was found that the attitude factor shows that the “Mobile payment is beneficial to use." was the highest ($\bar{X}$ = 4.7075, SD = .54561). The second “Mobile payment provides a wide range of products” ($\bar{X}$ = 4.6600, SD = .52924), followed by “I have positive opinion in mobile payment though mobile phone” ($\bar{X}$ = 4.6325, SD = .45661). And “using mobile payment is very convenient”. ($\bar{X}$ = 4.4575, SD = .6656), respectively.

Table 9 Mean and standard deviation of subjective norm

Subject norm	$\bar{X}$	SD	Level	Rank
1. Most people who are important to me think that I should use mobile payment.	4.6450	.53356	Most agree	3
2. I think it is important that everyone in the society should use mobile payment.	4.6250	.54784	Most agree	4
3. People whose opinions I value will prefer me to use mobile payment	4.6675	.52691	Most agree	1
4. People who are important to me will support me use mobile payment	4.6475	.49886	Most agree	2
Total average	4.6463	.38354	Most agree	-

From the table 9 it was found that the subjective norm factor shows that "people whose opinions I value will prefer me to use mobile payment" was the highest ($\bar{X}$ = 4.6675, SD = .52691). The second "people who are important to me will support me use mobile payment" ($\bar{X}$ = 4.6475, SD = .49886), followed by the "Most people who are important to me think that I should use mobile payment". ($\bar{X}$ = 4.6450, SD = .53356). And "I think it is important that everyone in the society should use mobile payment." ($\bar{X}$ = 4.6250, SD = .54784), respectively.

Table 10 Mean and standard deviation of factor trust

Trust	X̄	SD	Level	Rank
1. A trustable software will ensure Payment modes available is reliable.	4.7100	.47059	Most agree	1
2. A software that wants to keep promises And obligations will attract me to use mobile payment more often.	4.6400	.49600	Most agree	3
3. I will use mobile payment the terms and Conditions are clear.	4.6475	.55589	Most agree	2
4. I believe that mobile payment parties are honest;	4.6075	.50406	Most agree	4
5. I believe that mobile payment parties will offer a secure mobile payment service;	4.525	.54081	Most agree	5
Total average	4.6515	.40306	Most agree	

From Table 10, it was found that the trust factor shows that the question "A trustable software will ensure Payment modes available is reliable" was the highest (X = 4.7100, SD = .47059). The Second "I will use mobile payment the terms and Conditions are clear."; (X = 4.6475, SD = .55589), the third "A software that wants to keep promises and obligations will attract me to use mobile payment more often." (X = 4.6400, SD = .496), followed by "I believe that mobile payment parties are honest" (X = 4.6075, SD = .50406), and "I believe that mobile payment parties will offer a secure mobile payment service" ($\bar{X}$ = 4.525, SD = .54081), respectively.

Table 11 Mean and standard deviation of the degree of study on factor perceived behavior control

Perceived behavior control	X	SD	Level	Rank
1. I can use the mobile payment so good when in payment transaction;	4.7225	.44833	Most agree	1
2. Using mobile payment is entirely within my control	4.6975	.47598	Most agree	2
3. I have the resources, knowledge, and ability to use mobile payment;	4.650	.54151	Most agree	3
Total average	4.6867	.38147	Most agree	-

From Table 11, it was found that the perceive behavior control factor show that the question "I can use the mobile payment so good when in payment transaction" was the highest ($\bar{X}$ = 4.7225, SD = .44833). followed by "using mobile payment is entirely within my control". ($\bar{X}$ = 4.6975, SD = .47598), and "I have the resources, knowledge, and ability to use mobile payment." ($\bar{X}$ = 4.650, SD = .54151), respectively.

Table 12 Mean and standard deviation of the intention

Intention	X	SD	Level	Rank
1. I predict I will use mobile payment in the next 6 months	4.6525	.49229	Most agree	2
2. I plan to use mobile payment in the next 12 months	4.6200	.55350	Most agree	4
3. I think that in the future I will use mobile payment rather than any other available payment method to conduct a transaction.	4.6450	.53356	Most agree	3
4. I have intention to use mobile payment in Thailand.	4.7000	.47494	Most agree	1
Total average	4.6544	.38013	Most agree	-

From Table 12, it was found that the question "I have intention to use mobile payment in Thailand" was the highest ($\bar{X}$ = 4.7000, SD = .47494). The second is "I predict I will use mobile payment in the next 6 months" ($\bar{X}$ = 4.6525, SD = .49229). Followed by "I think that in the future I will use mobile payment rather than any other available payment method to conduct a transaction." ($\bar{X}$ = 4.6450, SD = .53356), and "I plan to use mobile payment in the next 12 months ($\bar{X}$ = 4.6200, SD = .55353), respectively.

Inferential analysis to test the hypothesis

There are four hypotheses in the research study. Simple linear regression analysis is employed to test the hypotheses.

Hypothesis 1

$H1_0$: Attitude has no significant influence on the intention to use mobile payment.

$H1_1$: Attitude has a significant influence on the intention to use mobile payment.

Hypothesis 2

$H2_0$: Subject Norm has no significant influence on the intention to use mobile payment.

$H2_1$: Subject Norm has a significant influence on the intention to use mobile payment.

Hypothesis 3

$H3_0$: trust had no significant influence on the intention to use mobile payment.

$H3_1$: trust has a significant influence on the intention to use mobile payment.

Hypothesis 4

$H4_0$: Perceived behavior control had no significant influence on the intention to use mobile payment.

$H4_1$: Perceived behavior control had a significant influence on the intention to use mobile payment.

Table 13 Summary result of simple linear regression analysis of attitude

ANOVA

Model		Sum of square	df	Mean square	F	*p-value*
1	Regression	37.899	1	37.899	753.488	.000
	Residual	19.756	398	.050		
	Total	57.655	399			

Coefficients

Model		Unstandardized coefficients		Standardized coefficients		
		B	Std.error	Beta	T	*p-value*
1	（Constant）	1.208	.125		9.648	.000
	Attitude	.744	.027	.811	27.631	.000

a. Dependent variable: Intention

b. Predictors: (Constant), Attitude

Model summary

Model	R	R square	Adj. R square	Std.error of the estimate
1	.811	.675	.656	.22280

According to Table 13, ANOVA F value is 753.488 with Significant level .000, indicating that the linear regression model established by the independent variable "Attitude" and the dependent variable "Intention" has extremely significant statistical significance.

From the last column of the regression coefficient significance value = 0.000<0.01<0.05, it indicates that the regression coefficient B exists and has statistical significance. The relationship between “Attitude” and “Intention” are proportional and extremely significant.

From model summary shows that R is 0.811, R Square is 0.675, R Square is a statistical measure of how close the data are to the fitted regression line. R Square of is equivalent to 0.675. This shows that 67.5% of the variance in intention to use mobile payment in Chonburi is explained by attitude.

In conclusion, the author rejects $H1_0$ and accepts $H1_1$.

$H1_1$: Attitude has a significant influence on the intention to use mobile payment in Chonburi.

Intention to use mobile payment =1.208+0.744 Attitude

Table 14 Summary result of simple linear regression analysis of subjective norm

ANOVA

Model		Sum of square	df	Mean square	F	*p-value*
1	Regression	32.286	1	32.286	506.514	.000
	Residual	25.369	398	.064		
	Total	57.655	399			

Coefficients

		Unstandardized coefficients		Standardized coefficients		
	Model	B	Std.error	Beta	T	*p-value*
1	（Constant）	1.208	.154		7.866	.000
	Subjective Norm	.742	.033	.748	22.506	.000

Table 14 (Cont)

Model summary

Model	R	R square	Adj. R square	Std.error of the estimate
1	.748	.560	.559	.25247

a. Dependent variable: Intention

b. Predictors: (Constant), Subjective Norm

According to Table 14, ANOVA F value is 506.514 with Significant level .000, indicating that the linear regression model established by the independent variable "Subjective norm" and the dependent variable "Intention" has extremely significant statistical significance.

From the last column of the regression coefficient significance value = 0.000<0.01<0.05, it indicates that the regression coefficient B exists and has statistical significance. The relationship between “Subjective norm” and “intention” are proportional and extremely significant.

From model summary shows that R is 0.748, R Square is 0.560, R Square is a statistical measure of how close the data are to the fitted regression line. R Square of is equivalent to 0.560. This shows that 56.00% of the variance in intention to use mobile payment in Chonburi is explained by Subjective norm.

In conclusion, the author rejects $H2_0$ and accepts $H2_1$.

$H2_1$: Subject Norm has a significant influence on the intention to use mobile payment.

Intention to use mobile payment =1.208+0.742 Subjective norm

Table 15 Summary result of simple linear regression analysis of trust

ANOVA

Model		Sum of square	df	Mean square	F	*p-value*
1	Regression	41.428	1	41.428	1016.080	.000
	Residual	16.227	398	.050		
	Total	57.655	399			

Coefficients

		Unstandardized coefficients		Standardized coefficients		
	Model	B	Std.error	Beta	T	*p-value*
1	（Constant）	0.936	.117		7.991	.000
	Trust	.799	.025	.848	31.876	.000

Model summary

Model	R	R square	Adj. R square	Std.error of the estimate
1	.848	.719	.718	.20192

a. Dependent variable: Intention

b. Predictors: (Constant), Trust

According to Table 15, ANOVA F value is 1016.080. with Significant level .000, indicating that the linear regression model established by the independent variable "Trust" and the dependent variable "Intention" has extremely significant statistical significance.

From the last column of the regression coefficient significance value = 0.000<0.01<0.05, it indicates that the regression coefficient B exists and has statistical significance. The relationship between “Trust” and “intention” are proportional and extremely significant.

From model summary shows that R is 0.848, R Square is 0.719, R Square is a statistical measure of how close the data are to the fitted regression line. R Square of is equivalent to 0.719. This shows that 71.90% of the variance in intention to use mobile payment in Chonburi is explained by trust.

In conclusion, the author rejects $H3_0$ and accepts $H3_1$.

$H3_1$: Trust has a significant influence on the intention to use mobile payment.

Intention to use mobile payment =0.936+0.799 Trust

Table 16 Summary result of simple linear regression analysis of perceived behavior control

ANOVA

Model		Sum of square	df	Mean square	F	*p-value*
1	Regression	43.949	1	43.949	1276.198	.000
	Residual	13.706	398	.034		
	Total	57.655	399			

Coefficients

		Unstandardized coefficients		Standardized coefficients		
	Model	B	Std.error	Beta	T	*p-value*
1	（Constant）	0.577	.115		5.038	.000
	PBC	.870	.024	.873	35.724	.000

Table 16 (Cont)

Model summary

Model	R	R square	Adj. R square	Std.error of the estimate
1	.873	.763	.763	.18557

a. Dependent variable: Intention

b. Predictors: (Constant), PBC

According to Table 16, ANOVA F value is 1276.198. with Significant level .000, indicating that the linear regression model established by the independent variable "Perceived behavior control" and the dependent variable "Intention" has extremely significant statistical significance.

From the last column of the regression coefficient significance value = 0.000<0.01<0.05, it indicates that the regression coefficient B exists and has statistical significance. The relationship between “Perceived behavior control” and “intention” are proportional and extremely significant.

From model summary shows that R is 0.873, R Square is 0.763, R Square is a statistical measure of how close the data are to the fitted regression line. R Square of is equivalent to 0.763, This shows that 76.30% of the variance in intention to use mobile payment in Chonburi is explained by perceived behavior control.

In conclusion, the author rejects $H4_0$ and accepts $H4_1$.

$H4_1$: Perceived behavior control had a significant influence on the intention to use mobile payment.

Intention to use mobile payment = 0.577+0.870 Perceived behavior control.

The equation indicates that attitude, subject norm, trust and perceived behavior control are all have a significant effect on intention to use mobile payment in Chonburi of Thailand.

Summary of hypothesis testing

Research results on “The factors affecting intention to use mobile payment in Chonburi of Thailand “summarize the hypothesis test results as shown in Table 17.

Table 17 Summary of hypothesis testing

Hypothesis	Results
Hypothesis1: attitude has a significant influence on the intention to use mobile payment in Chonburi.	Supported Hypothesis
Hypothesis 2. Subject Norm has a significant influence on the intention to use mobile payment in Chonburi.	Supported Hypothesis
Hypothesis 3 trust has a significant influence on the intention to use mobile payment in Chonburi.	Supported Hypothesis
Hyphothsis4 perceived behavior control had a significant influence on the intention to use mobile payment in Chonburi.	Supported Hypothesis

From Table 17, the results of hypothesis testing are summarized as follows:

Hypothesis 1: Attitude has a significant influence on the intention to use mobile payment in Chonburi at statistically significant 0.05

Hypothesis 2. Subjective Norm has a significant influence on the intention to use mobile payment in Chonburi at statistically significant 0.05

Hypothesis 3 Trust has a significant influence on the intention to use mobile payment in Chonburi at statistically significant 0.05

Hyphothsis4 Perceived behavior control had a significant influence on the intention to use mobile payment in Chonburi at statistically significant 0.05

Conclusion

In summary, this chapter has discussed about the results of the various data analysis techniques that have been conducted in this study using both the SPSS software. The chapter 5 will be discussing about the overall summary of the findings, the implications and limitations of the study, as well as some of the suggestions for the future studies.

CHAPTER 5
SUMMARY AND DISCUSSION

This research study is about factors affecting the intention to use mobile payment in Chonburi of Thailand. This chapter demonstrates the conclusion of the findings from the data analysis and results of chapter four. The author tests the hypotheses of the study by employing quantitative method. The total respondents of this study are 400. This chapter is designed as follows:

1. Summary of statistical analysis
2. Discussion of research findings
3. Limitations of the Study
4. Recommendations from the result of this research
5. Recommendations for Future Research

Summary of statistical analysis

The variables

There are five variables in this research study: (1) attitude, (2) subjective norm, (3) trust, (4) perceived behavior control, (5) intention to use mobile payment.

Demographical characteristics of respondents

There are 400 respondents for this research study. 224 of them are female, and 176 of them are male. 171 of them are between 25-30 years old. 127 of them are between 31-40 years old. 60 of them are between 41-50 years old, and 42 of them are between 51-55 years old. 19 respondents no income. 52 of them earn between 1-10000 baht monthly. 198 respondents earn 10,00·1- 30,000 baht per month. 131 of them earn more than 30000 baht per month. The questionnaire uses screening question that all respondents have smart phone but never use mobile banking and live in Chonburi of Thailand.

Level of independent variables

For the level of respondents' attitude on the intention to use mobile payment., the results showed that the respondents had the most agree level of attitude on the intention to use mobile payment. In the details of attitude dimension, it was

found that all components of attitude are also in the most agree level. The ranking from the highest mean to the lowest mean is 4.7075, 4.6600, 4.6325, and 4.4575, respectively.

For the level of respondents' subjective norm on the intention to use mobile payment., the results showed that the respondents had the most agree level of subjective norm on the intention to use mobile payment. In the details of subjective norm dimension, it was found that all components of subjective norm are also in the most agree level. The ranking from the highest mean to the lowest mean is 4.6675, 4.6475, 4.6450, and 4.6250, respectively.

For the level of respondents' trust on the intention to use mobile payment., the results showed that the respondents had the most agree level of trust on the intention to use mobile payment. In the details of trust dimension, it was found that all components of trust are also in the most agree level. The ranking from the highest mean to the lowest mean is 4.7100, 4.6475, 4.6400, and 4.6075, respectively.

For the level of respondents' perceived behavior control on the intention to use mobile payment., the results showed that the respondents had the most agree level of perceived behavior control on the intention to use mobile payment. In the details of perceived behavior control dimension, it was found that all components of perceived behavior control are also in the most agree level. The ranking from the highest mean to the lowest mean is 4.7225, 4.6975, 4.6500, respectively.

The hypotheses

There are four hypotheses in this research study.

H1: Attitude has a significantly effect on intention to use mobile payment in Chonburi;

H2: Subjective Norm has a significantly effect on intention to use mobile payment in Chonburi;

H3: Trust of mobile payment has a significantly effect on intention to use mobile payment in Chonburi;

H4: Perceived behavioral control has a significantly effect on intention to use mobile payment in Chonburi;

Hypothesis 1: Attitude has a significantly effect on intention to use mobile payment in Chonburi;

The simple regression analysis in chapter 4 supports hypothesis 1. Table 13 illustrates that the p-value of attitude and intention to use mobile payment in Chonburi is 0.000, and the B value is 0.744. In other words, attitude has significant effect on intention to use mobile payment in Chonburi. Comparing B value with other variables, the author finds that attitude has the third significant effect on intention to use mobile payment in Chonburi.

Hypothesis 2: Subjective Norm has a significantly effect on intention to use mobile payment in Chonburi;

The simple regression analysis in chapter 4 supports hypothesis 2. Table 14 illustrates that the p-value of subjective norm and intention to use mobile payment in Chonburi is 0.000, and the B value is 0.742. In other words, subjective norm has significant effect on intention to use mobile payment in Chonburi. Comparing B value with other variables, the author finds that subjective norm has the least significant effect on intention to use mobile payment in Chonburi.

Hypothesis 3: Trust of mobile payment has a significantly effect on intention to use mobile payment in Chonburi;

The simple regression analysis in chapter 4 supports hypothesis 3. Table 15 illustrates that the p-value of trust and intention to use mobile payment in Chonburi is 0.000, and the B value is 0.799. In other words, trust has significant effect on intention to use mobile payment in Chonburi. Comparing B value with other variables, the author finds that trust has the second significant effect on intention to use mobile payment in Chonburi.

Hypothesis 4: Perceived behavioral control has a significantly effect on intention to use mobile payment in Chonburi;

The simple regression analysis in chapter 4 supports hypothesis 4. Table 16 illustrates that the p-value of perceived behavioral control and intention to use mobile payment in Chonburi is 0.000, and the B value is 0.870. In other words, perceived behavioral control has significant effect on intention to use mobile payment in Chonburi. Comparing B value with other variables, the author finds that perceived behavioral control has the most significant effect on intention to use mobile payment in Chonburi.

Discussion of research findings

The research findings are discussed based on the research objectives of this items as follows: 1. To investigate the effect of attitude on intention to use mobile payment in Chonburi. 2. To investigate the effect of subjective norm on intention to use mobile payment in Chonburi. 3. To investigate the effect trust of mobile payment on intention to use mobile payment in Chonburi. 4. To investigate the effect of perceived behavioral control on intention to use mobile payment in Chonburi.

The interpretation of mean score will be employed to analyze the data and is displayed as the following formula.

$$= \frac{5 - 1}{5}$$

$$= 0.8$$

The result then can be interpreted as the following levels:

Range from each level	Interpretation
4.21-5.00	Very high level of intention
3.41-4.20	High level of intention
2.61-3.40	Average level of intention
1.81-2.60	Low level of intention
1.00-1.80	Very low level of intention

Objective 1: To investigate the effect of attitude on intention to use mobile payment in Chonburi.

According to Table 8 the average mean of attitude is 4.6352, which is high level. in a word, there is high level between attitude and intention to use mobile payment in Chonburi.

Simple regression analysis results support hypothesis 1 that attitude has significant effect on intention to use mobile payment in Chonburi. It has the third significant effect on intention to use mobile payment in Chonburi if comparing to other three independent variables of this research. Attitude includes Using mobile payment is very convenient, Mobile payment provides a wide range of products, Mobile payment is beneficial to use. I have positive opinion in mobile payment

though mobile phone. It was also found that attitude has significant effect on intention to use mobile payment (Hiram, Yusman, Lona, & Wee, 2015, Polatoglu & Ekin, 2001, Shaizetulaqma & Khor, 2019, Kyungtag, Jeongwoo & Mijin, 2017).

Objective 2: To investigate the effect of subjective norm on intention to use mobile payment in Chonburi.

According to Table 9 the average mean of subjective norm is 4.6463, which is high level. in a word, there is high level between subjective norm and intention to use mobile payment in Chonburi.

Moreover, Simple regression analysis results support hypothesis 2 that subjective norm has significant effect on intention to use mobile payment in Chonburi. It has the least significant effect on intention to use mobile payment in Chonburi if comparing to other three independent variables of this research. subjective norm includes most people who are important to me think that I should use mobile payment., I think it is important that everyone in the society should use mobile payment, people whose opinions I value will prefer me to use mobile payment, people who are important to me will support me use mobile payment. It was also found that subjective norm has significant effect on intention to use mobile payment (Chanchai, Carmine, & Michelle, 2016, Francisco, Iviane, & Francisco, 2017, Helge, 2001).

Objective 3: To investigate the effect trust of mobile payment on intention to use mobile payment in Chonburi.

According to Table 10 the average mean of trust is 4.6515, which is high level. in a word, there is high level between trust and intention to use mobile payment in Chonburi.

Base on the Simple regression analysis results of hypothesis 3 the author found that trust has significant effect on intention to use mobile payment in Chonburi. It has the second significant effect on intention to use mobile payment in Chonburi if comparing to other three independent variables of this research. Trust includes A trustable software will ensure Payment modes available is reliable, A software that wants to keep promises and obligations will attract me to use mobile payment more often, I will use mobile payment the terms and Conditions are clear, I believe that mobile payment parties are honest, I believe that mobile payment parties will offer a

secure mobile payment service, it was also found that trust has significant effect on intention to use mobile payment (Killian & Kabanda 2017, Gong, et al, 2016, Lwoga & Lwoga, 2017, Yang et al, 2015).

Objective 4: To investigate the effect of perceived behavioral control on intention to use mobile payment in Chonburi.

According to Table 11 the average mean of perceived behavior control is 4.6867, which is high level. in a word, there is high level between perceived behavior control and intention to use mobile payment in Chonburi.

Lastly, according to simple regression analysis, the researcher found that perceived behavioral control has significant effect on intention to use mobile payment in Chonburi. It has the most significant effect on intention to use mobile payment in Chonburi if comparing to other variables of this research. Perceived behavior control includes I can use the mobile payment so good when in payment transaction, using mobile payment is entirely within my control, I have the resources, knowledge, and ability to use mobile payment. Previous researches affirmed that perceived behavior control have strongly effect on intention to use mobile payment (Quan et al., 2010, Shaizetulaqma & Khor, 2019, Hiram, Yusman, Lona & Wee, 2015).

In a word, attitude, subjective norm, trust and perceived behavior control have significant effect on intention to use mobile payment in Chonburi. Perceived behavior has the most significant effect following by trust and attitude while subject norm has the least significant effect on intention to use mobile payment.

Limitations of the study

We have to point out that here are few limitations can be found in this study.

The first, now lots of people owe smart phone but not use mobile banking in Thailand. There is not an exact number of people who intention to use mobile payment in Chonburi. So, the population of this research is exactly unknown.

The second, the study was carried out at Chonburi province the target respondents chosen was only choose the people who have smart phone but never use mobile banking and live in Chonburi. Consequently, the result of the study may not fully generalize to all the people in Thailand.

The third, during the period of this research from Jan 2019- Mar 2021,

promote by Thai government for using mobile banking project was started, so the results might change as respondents' evaluative criteria change.

The last, this study survey the factor though online, so the real status of respondent may not know exactly, regardless of whether the people live in Chonburi or just commutes to Chonburi.

Recommendations from the result of this research

From the result of this research show that attitude, subjective norm, trust, perceived behavior control all have a significant effect on intention to use mobile payment. In addition, perceived behavior has the most significant effect following by trust and attitude while subject norm has the least significant effect on intention to use mobile payment.

For banker and government

1. For banker and government, should propagandize mobile payment knowledge in public, to increase people's knowledge directly and indirectly to make people form a strong perceived behavior control.

2. To ensure the payment platform is safety and good privacy protection, provide the strongest trust environment will attract more people to use mobile payment.

For intrapreneur

If the intrapreneur want to motive the mobile payment in their shop or company, they may need to follow the suggestion below:

1. convenient operation. The intrapreneur should design a convenient operation platform, make the people use mobile payment easily.

2. Strong protection policy. The intrapreneur need to keep a strong trust environment for the people who use mobile payment to purchase products.

3. Widely products provide. To ensure the products can cover all products in the shop, so the people who plan to use mobile payment can find whatever they want during use mobile payment.

4. More abundant promotion are good for people form a positive attitude to use mobile payment, so the intrapreneur should make people feel they can get special benefit if they use mobile payment to purchase products.

Lastly, bank, government and intrapreneur should always keep the people' interests or feedbacks in mind and improve to meet and satisfy people's expectation.

Recommendations for future research

Based on the results of this study, a few recommendations for future research are proposed for the purpose of further increasing the practitioners understanding the factors affecting intention to use mobile payment.

The first, the results of this study are based on the population which people who have a smart but never use mobile banking and live in Chonburi, so future researchers are encouraged to study all people in Thailand if time permits so that the findings can be used to represent all the targets population in Thailand.

On the other hand, future researchers are advised to include larger sample size in future studies in order to obtain more valuable data and findings.

Lastly, future researchers are also advised to conduct mixed mode research study rather than quantitative study alone if time permits so that more precise and in-depth information can be collected from the respondents which in turn will help to develop more reliable research instruments to examine the resistance factors affecting intention to use mobile payment in Chonburi.

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APPENDICES

APPENDIX 1

Questionnaire (English version)

THE FACTORS AFFECTING INTENTION TO USE THE MOBILE PAYMENT:

PART1: Screening question

Statement Please mark "X"□ into the box "◯"□ to match the reality. If any questions in this part you chose "No", Please don't answer the questionnaire left.

1. Do you have and use any smart phone?

◯ YES ◯ NO

2. Do you live in Chonburi?

◯ YES ◯ NO

3. Do you never used M-banking before?

◯ YES ◯ NO

PART2: General data

Statement Please mark "X"□ into the box "◯"□ to match the reality.

1. GENDER:

◯ Male ◯ Female

2. AGE:

◯ 20-30 ◯ 31-40 ◯ 41-50 ◯ >50

3. INCOME Per month:

◯ NO INCOME ◯ <10000 ◯ 10001-30000 ◯ OVER 30001

Statement Please mark “X” into the box “◯” that you have the opinion that it is the only one that matches you the most. By setting the scoring criteria as follows:

Set to 5 points equal to = Strong agree

Set to 4 points equal to = Agree

Set to 3 points equal to = Neutral

Set to 2 points equal to = Disagree

Set to 1 point equal to = Strong disagree

Question	Answer level				
	5	4	3	2	1
PART3 1. Attitude effect Ajzen, 1991; Har, Cyril and Oly (2011)					
1.1 Using mobile payment is very convenient					
1.2 Mobile payment provides a wide range of products.					
1.3 Mobile payment is beneficial to use.					
1.4 I have positive opinion in mobile payment though mobile phone;					
PART4 2. Subjective Norms effect Adapted from Taylor and Todd (1995), Fishbein and Ajzen (1975)					
2.1 Most people who are important to me think that I should use mobile payment.					
2.2 I think it is important that everyone in the society should use mobile payment.					
2.3 People whose opinions I value will prefer me to use mobile payment					
2.4 People who are important to me will support me use mobile payment					

Question	Answer level				
	5	4	3	2	1
PART5 3. Trust adapted from Pavlou (2003); Teoh, Lin, and Chua (2013)					
3.1 A trustable software will ensure Payment modes available is reliable.					
3.2 A software that wants to keep promises and obligations will attract me to use mobile payment more often.					
3.3 I will use mobile payment the terms and Conditions are clear.					
3.4 I believe that mobile payment parties are honest;					
3.5 I believe that mobile payment parties will offer a secure mobile payment service;					
PART6 4. Perceived behavior control effect Tan and Teo, 2000; Chen, 2007; Kang et al., 2006; Miler, 2005; Armitage et al. 1999 as cited in Al-Debei et al., 2013					
4.1 I can use the mobile payment so good when in payment transaction;					
4.2 Using mobile payment is entirely within my control					
4.3 I have the resources, knowledge, and ability to use mobile payment;					
PART7 5. Intention adapted from Venkatesh and Davis (2000)					
5.1 I predict I will use mobile payment in the next 6 months					
5.2 I plan to use mobile payment in the next 12 months					

Question	Answer level				
	5	4	3	2	1
5.3 I think that in the future I will use mobile payment rather than any other available payment method to conduct a transaction.					
5.4 I have intention to use mobile payment in Thailand.					

APPENDIX 2

IOC Result

Questionnaire	(Comment of Professional)			(Total)	IOC Value	Result
	1. Asst. Prof. Naruemon Choochinprakarn, PhD	2. Dr. Supoet	3. DR. Pasuta Phunyathip			
PART1: Screening question						
1. Do you have and use any smart phone	+1	+1	+1	3	1	Yes
2. Do you live in Chonburi	+1	+1	+1	3	1	Yes
3. Do you never used mobile banking before	+1	+1	+1	3	1	Yes
PART2 : General data						
1. Gender	0	+1	+1	2	0.67	Yes
2. Age	0	+1	+1	2	0.67	Yes
3. Income status	0	+1	+1	2	0.67	Yes
PART3 1. Attitude effect Ajzen, 1991; Har Lee, Cyril Eze and Oly Ndubisi (2011)						
1.1 Using mobile payment is very convenient	+1	+1	+1	3	1	Yes
1.2 Mobile payment provides a wide range of products.	+1	+1	+1	3	1	Yes
1.3 Mobile payment is beneficial to use.	+1	0	+1	2	0.67	Yes
1.4 I have positive opinion in payment though mobile phone;	0	+1	+1	2	0.67	Yes

Questionnaire	(Comment of Professional)			(Total)	IOC Value	Result
	1. Asst. Prof. Naruemon Choochinprakarn, PhD	2. Dr. Supoet	3. DR. Pasuta Phunyathip			
1.5 I think continuance usage mobile payment is good for me;	-1	0	0	-1	-0.33	NO
1.6 I think continuance usage mobile payment is appropriate for me;	-1	+1	+1	1	0.33	NO
PART4 2. Subjective Norms effect Adapted from Taylor and Todd (1995), Fishbein and Ajzen (1975)						
2.1 Most people who are important to me think that I should use mobile payment.	+1	0	+1	2	0.67	Yes
2.2 It is expected of me that I should use mobile payment.	-1	+1	0	0	0	NO
2.3 I think it is important that everyone in the society should use mobile payment.	+1	+1	+1	3	1	Yes
2.4 People who are work or study with me think I should use mobile payment;	-1	0	+1	0	0	NO

Questionnaire	(Comment of Professional)			(Total)	IOC Value	Result
	1. Asst. Prof. Naruemon Choochinprakarn, PhD	2. Dr. Supoet	3. DR. Pasuta Phunyathip			
2.5 People whose opinions I value will prefer me to use mobile payment	+1	+1	0	2	0.67	Yes
2.6 People who are important to me will support me use mobile payment	+1	0	+1	2	0.67	Yes
PART5 3. Trust adapted from Pavlou (2003); Teoh Chong, Lin and Chua (2013)						
3.1 A trustable software will ensure Payment modes available is reliable.	+1	+1	0	2	0.67	Yes
3.2 A software that wants to keep promises And obligations will attract me to use M-payment more often.	+1	+1	+1	3	1	Yes
3.3 I will use M-payment the terms and Conditions are clear.	+1	+1	0	2	0.67	Yes
3.4 I believe that mobile payment parties are honest;	+1	+1	+1	3	1	Yes

Questionnaire	(Comment of Professional)			(Total)	IOC Value	Result
	1. Asst. Prof. Naruemon Choochinprakarn, PhD	2. Dr. Supoet	3. DR. Pasuta Phunyathip			
3.5 I believe that mobile payment parties will keep my best interests in mind.	+1	+1	-1	1	0.33	NO
3.6 I believe that mobile payment parties will offer a secure mobile payment service;	+1	+1	+1	3	1	Yes
PART6 4. Perceived behavior control effect Tan & Teo, 2000; Chen, 2007; Kang et al,. 2006; Miler 2005; Armitage et al., 1999 as cited in Al-Debei et al., 2013						
4.1 I focus on the report or new about mobile payment process	-1	0	0	-1	0	NO
4.2 I often attempt some payment tool when purchasing;	-1	+1	+1	1	0.33	NO
4.3 I can use the mobile payment so good when in payment transaction;	+1	+1	+1	3	1	Yes
4.4 Using mobile payment is entirely within my control	+1	+1	+1	3	1	Yes

Questionnaire	(Comment of Professional)			(Total)	IOC Value	Result
	1. Asst. Prof. Naruemon Choochinprakarn, PhD	2. Dr. Supoet	3. DR. Pasuta Phunyathip			
3.5 I believe that mobile payment parties will keep my best interests in mind.	+1	+1	-1	1	0.33	NO
4.5 I have the resources, knowledge, and ability to use mobile payment;	+1	+1	+1	3	1	Yes
PART7 5. Intention adapted from Venkatesh and Davis (2000)						
5.1 I plan to use mobile payment in the next 6 months	+1	+1	+1	3	1	Yes
5.2 I plan to use mobile payment in the next 12 months	0	+1	+1	2	0.67	Yes
5.3 I think that in the future I will use mobile payment rather than any other available payment method to conduct a transaction.	+1	+1	+1	3	1	Yes
5.4 I have intention to use mobile payment in Thailand.	0	+1	+1	2	0.67	Yes

Part 1 to Part 7 I send to three professors for Content validity test IOC of the questionnaire:

1. Asst. Prof. Naruemon Choochinprakarn, Ph.D.
2. DR. Supoets
3. DR. Pasuta Phunyathip Managing Director, Expertise (Thailand) Co., Ltd. Lecturer, Burapha University.

The evaluate marked according to the assessment scale in the table. Into the square that matches opinion level ready to give suggestions as below:

Consistent score equal to +1

Not sure score equal to 0

No consistency score equal to -1

Base on the data collected from professors, the formula of calculate IOC is:

$$IOC = \frac{\sum R}{N}$$

$\sum R$ = Accumulate all points' professors

N = the Head count of Professors

The result of this content validity test IOC of the questionnaire base on the IOC value, if the IOC value over than 0.5, it means the questionnaire pass the validity test;

APPENDIX 3

Ethic Approval

ที่ ๐๘๓/๒๕๖๓

เอกสารรับรองผลการพิจารณาจริยธรรมการวิจัยในมนุษย์
มหาวิทยาลัยบูรพา

คณะกรรมการพิจารณาจริยธรรมการวิจัยในมนุษย์ มหาวิทยาลัยบูรพา ได้พิจารณาโครงการวิจัย

รหัสโครงการวิจัย : G-HU 060/2563
โครงการวิจัยเรื่อง : The Factors Impact Consumer's Intention to use The Mobile Payment : a study of generation X and Y in Thailand
หัวหน้าโครงการวิจัย : Mr. YU JIXIANG
หน่วยงานที่สังกัด : นิสิตระดับบัณฑิตศึกษา คณะการจัดการและการท่องเที่ยว

คณะกรรมการพิจารณาจริยธรรมการวิจัยในมนุษย์ มหาวิทยาลัยบูรพา ได้พิจารณาแล้วเห็นว่า โครงการวิจัยดังกล่าวเป็นไปตามหลักการของจริยธรรมการวิจัยในมนุษย์ โดยที่ผู้วิจัยเคารพสิทธิและศักดิ์ศรีในความเป็นมนุษย์ ไม่มีการล่วงละเมิดสิทธิ สวัสดิภาพ และไม่ก่อให้เกิดภยันตรายแก่ตัวอย่างการวิจัยและผู้เข้าร่วมโครงการวิจัย

จึงเห็นสมควรให้ดำเนินการวิจัยในขอบข่ายของโครงการวิจัยที่เสนอได้ (ดูตามเอกสารตรวจสอบ)

๑. แบบเสนอเพื่อขอรับการพิจารณาจริยธรรมการวิจัยในมนุษย์	ฉบับที่ ๑ วันที่ ๑๐ เดือน เมษายน พ.ศ. ๒๕๖๓
๒. เอกสารโครงการวิจัยฉบับภาษาไทย	ฉบับที่ ๑ วันที่ ๑๐ เดือน เมษายน พ.ศ. ๒๕๖๓
๓. เอกสารชี้แจงผู้เข้าร่วมโครงการวิจัย	ฉบับที่ ๑ วันที่ ๑๐ เดือน เมษายน พ.ศ. ๒๕๖๓
๔. เอกสารแสดงความยินยอมของผู้เข้าร่วมโครงการวิจัย	ฉบับที่ ๑ วันที่ ๑๐ เดือน เมษายน พ.ศ. ๒๕๖๓
๕. เอกสารแสดงรายละเอียดเครื่องมือที่ใช้ในการวิจัยซึ่งผ่านการพิจารณาจากผู้ทรงคุณวุฒิแล้ว หรือชุดที่ใช้เก็บข้อมูลจริงจากผู้เข้าร่วมโครงการวิจัย	ฉบับที่ ๒ วันที่ ๑๕ เดือน พฤษภาคม พ.ศ. ๒๕๖๓
๖. เอกสารอื่น ๆ (ถ้ามี)	ฉบับที่ - วันที่ - เดือน - พ.ศ. -

วันที่รับรอง : วันที่ ๑๓ เดือน กรกฎาคม พ.ศ. ๒๕๖๓
วันที่หมดอายุ : วันที่ ๑๔ เดือน กรกฎาคม พ.ศ. ๒๕๖๔

ลงนาม
(นายเจนวิทย์ นวลแสง)
ประธานคณะกรรมการพิจารณาจริยธรรมการวิจัยในมนุษย์ มหาวิทยาลัยบูรพา
ชุดที่ ๒ (กลุ่มมนุษยศาสตร์และสังคมศาสตร์)

BIOGRAPHY

NAME	YUJIXIANG	
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PLACE OF BIRTH	Qitaihe City Heilongjiang Province China	
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EDUCATION	2008-2012	Bachelor of Finance, Faculty of Economics and Management, Shenyang University of Chemical Technology, Liaoning Province, China.
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