

Factors Influencing Chinese Consumers' Desire to Use E-payment in Thailand

Sumas Wongsunopparat¹, Chunjing He²

¹PhD, Johnson Graduate School of Management, Cornell University, United States of America, MBA, Tepper School of Business, Carnegie Mellon University, United States of America

²Master of Business Administration, Bangkok University, Bangkok, Thailand

Abstract: As Corona virus pandemic has become a major driving force of seismic shift in how people shop and pay all over the world. These new consumer preferences of e-Payment are here to stay and will continue to shape the next normal for everyone involved in this whole new ecosystem for the years to come. Therefore all key stakeholders need to understand what factors influence and shape this changing market dynamics and shifting consumer expectations for these new e-Payment trends in order to remain competitive and thrive. Since Thailand has become tourist destination of Chinese. Consequently, e-Payment is becoming popular in recent years especially during Covid-19 pandemic. The purpose of this research is study of Factors influencing Chinese consumers' desire to use e-Payment in Thailand. These factors are Benefits (BN), Trust & Security (TS), User friendly (UF), Technology (TN), Popularity (PP), Culture (CU), Government Policy (GP), Social Pressure (SP), Pop Culture (PC), Product value (PD) and e-Payment behavior (EP). 400 sample were collected using electronic questionnaire through social media such as Facebook, WeChat and Line. We used second-order Structural Equation Models (SEM) for data analysis. The result shows that RMSEA is .052 (<.06) which strongly indicates a "close fit" and the Goodness of Fit Index (GFI) value is .900, the model seems to fit well according to the descriptive measures of fit. More importantly, Trust & Security (TS) and second-order latent variable called Product value (PD) which represents User friendly (UF) and Technological aspects (TN) of e-Payment system seem to have significant effects on customer desire to use e-Payment due to their p-values are both less than .05. That means if e-Payment operators can provide highly-secure, high-tech, and user-friendly e-Payment system that can be trusted, people will be more likely to switch to use e-Payment to replace cards and cash any day. The results found in this research will help all key stakeholders—businesses, merchants, issuers and regulators alike—shape their strategy and identify critical technologies, rules and regulations to best position their organization for growth and support a rapid evolution of e-Payment methods in the new normal.

Keywords: e-Payment, Covid-19, Consumer, Trust & Security, User friendly, Technology, SEM.

1. Introduce

We frequently hear and use the phrases "e-commerce", "digital money", "online banking", and "online transactions" in our everyday lives. The 21st century belongs to them. Our everyday lives and business practices have undergone radical transformation as a result of business in the twenty-first century. As personal computers become more affordable and powerful and as communication lines get quicker and more powerful, the Internet's influence continues to grow and helps to advance new business practices. Virtually every practice in the industrial and service industries has been influenced by online trade. The commercial landscape has been fundamentally altered by e-commerce, whose scope and depth are continuously expanding each year. Global company is increasingly relying on online transactions. with the growth of electronic payments. The majority of people will have easy access to the Internet, which will cost as little as the electricity in their life, and accessing it will be uncomplicated in the surrounding information environment. E-commerce is now experiencing growth, but because there are so many factors to take into account, it is hard to anticipate how it will evolve.

Mobile phones are now often used to improve communication. Approximately 6 billion mobile devices are being utilized globally right now. The accelerated advancement of portable and mobile technology has made it possible to utilize these devices for purposes other than instant messaging, which was their primary intended function.

With the ability to purchase goods and make payments via mobile devices, mobile commerce has grown to be a significant channel in today's wireless culture. Mobile commerce is primarily propelled by the introduction of E-payment as a service. The amount of e-payment activity is rising. The advantages of E-payment are comparable to those of traditional payment systems. Therefore, by 2019, it is anticipated that \$690 billion would be transacted globally using mobile devices, benefiting both customers and society. The offering of entity-related mobile payment services will increase with this anticipated expansion. For instance, in order to satisfy customer demands, telecommunications firms, banks, and payment service providers must be aware of the factors supporting consumer adoption decisions.

The E-payment system has become more widely recognized, although not all nations have fully adopted and utilised it. Given that Thailand is a well-liked tourism destination, it is important to investigate the primary variables influencing international clients to accept electronic payment. A significant majority of international travelers to Thailand are Chinese citizens. Therefore, this study focuses on the variables that impact Chinese customers' desire to use E-payment in Thailand in order to encourage the use of E-payment systems. In order to develop methods to encourage Chinese customers to utilize E-payment in Thailand, this article will provide an overview of the significant elements that influence Chinese consumers' propensity to do so. This article can also assist Thai software development firms,

organizations that offer electronic trading facilities, and financial institutions in examining the issues and worries that Chinese clients have while using electronic payment. As a result, this paper offers useful insights that will increase the usage and acceptance of electronic payment and, in the end, turn it into the preferred platform for electronic transactions in Thailand.

2. Literature Review, Theoretical background & Hypothesis development

2.1. Literature Review

2.1.1. Research on E-payment

E-commerce nowadays plays a growingly vital role in individuals' life. To provide rapid service and convenience with customers, business growingly use electronic payment (e-payment). According to Lai et al (2020), it is presented that e-payment achieves income approximate 296 billion USD between 2011 and 2015. Furthermore, according to Ladkoom and Thanasopon (2020), since 2015, the Thailand government has made attempts to motivate both Thai people and foreign visitors to use a e-payment system named as "PromptPay" that plays a significant role in the Thailand government's tactic to adopt technology, thus stimulating the economy (Embalzado et al. 2019). Specifically, PromptPay is a e-payment system which is registered by Thai mobile number or identification number to link with the bank account.

E-payment has become growingly popular to afford online transactions. The internet development has contributed to the popularity of e-payment since electronic commerce (e-commerce) promotes the new financial demands which cannot be addressed via previous payment systems. Prior researches (i.e. Amoroso and Magnier-Watanabe, 2012) have individually and separately explored e-payments such as mobile banking mobile payment, mobile e-wallet, internet banking, smart cards and payment cards. Marimuthu et al (2011) report that customers are not satisfied with present payment technology such as security and design. Actually, there is a growing interest to explore the issues of e-payment (i.e. payment risk, unattractive design and inconvenience) and offer technology solutions to ensure e-payment security, which can effectively improve customers' desires to adopt e-payment systems.

Exploring and meeting requirements and demands of customers are the important factors to success of e-payment. To improve e-payment's adoption rate, the factors which influence customer adopting e-payment need to be deeply researched (Montazemi and Qahri- Saremi 2015). Although the significant investment used in information technology to develop banking, studies exhibit that some customers are less willing to use e-payment, which implies the research demand to recognize the factors impacting usage of e-payment systems. There are many models being created to interpret the factors influencing customers' usage of e-payment. According to Harris et al (2011), they state that the customers' opinions of e-payment is significantly impacted by factors (i.e. security of e-payment, privacy of e-payment, data management of e-payment, functionality of e-payment and flexibility of e-payment. Customers adopting e-payment usually worry about greater risks while adopting the internet for e-payment, which results in trust issues. Hence, security and trust can be regarded as the most significant factors influencing customers' desires to use e-payment. Although

the factors impacting trust and security have been deeply researched (i.e. Junadi 2015; Hoehle et al. 2012), the literature review still does not have investigation depth regarding perceived security and trust of Chinese customers using e-payment in Thailand. For instance, current studies (i.e. Alikhani and Davarzani 2014; Sanayei and Noroozi 2009) usually lack general assessment of relevant factors of customers desires to adopt e-payment, such as exclusively focusing on either security or trust, which ignores many potential factors of customers desires to adopt e-payment. Thailand is a developing country in the Asia. E-payment is created to provide customers with benefits majorly including less transaction costs and convenience. For instance, e-payment has the user interface based on website, which permits customers to remotely manage and access their transactions.

There are a considerable volume of academic studies exploring e-payment from the user acceptance and technical dimensions (i.e. Harris et al., 2011), which concludes some important factors impacting customers' desire to use E-payment. According to Barkhordari et al (2017), cheques and cash are considered as popular payment choices since customers doubt the benefits of e-payment adoption. Additionally, Abrazhevich (2004) summarizes failure of e-payment such as deployment and design of e-payment system failing to satisfy customer expectations and requirements. According to Johar and Awalludin (2011), they present that trust and security are the most significant concerns while using e-payment. However, although Ramalingam (2012) demonstrates that Thailand makes greater progress of using e-payment, most of online population in Thailand is teenagers having a low degree of internet knowledge, which leads to concerns of adopting e-payment.

Some previous studies (i.e. Alyabes and Alsalloum 2018) propose that ease of use, self-efficacy, benefits, trust and security are considered as essential factors impacting e-payment adoption. Few academic studies explore relevant factors of using e-payment in a specific setting: Thailand. Therefore, it is valuable to research these factors impacting e-payment adoption in the Thailand setting.

2.1.2. SEM Model

Structural Equation Modeling, or SEM, is a very general statistical modeling technique, which is widely used in the behavioral sciences (Joreskog K G, 1993). It can be viewed as a combination of factor analysis and regression or path analysis. The interest in Structural Equation Modeling is often on theoretical constructs, which are represented by latent factors. The relationships between the theoretical constructs are represented by regression or path coefficients between the factors (Liang Changyong, 2012). The structural equation model implies a structure for the covariance between the observed variables, which provides the alternative name covariance structure modeling (Cheng Wendong, 2014). However, the model can be extended to include means of observed variables or factors in this model, which makes covariance structure modeling a less accurate name. Structural Equation Modeling provides a very general and convenient framework for statistical analysis that includes several traditional multivariate procedures, for example factor analysis, regression analysis, discriminant analysis, and canonical correlation, as special cases (Lu Shen, 2020).

2.2. Theoretical Background

2.2.1. E-payment Benefits

E-payment benefits is understood as an important factor to motivate the usage and acceptance of e-payment systems. Meanwhile, through exploring four major e-commerce activities including e-payment systems, online investment, online banking and online shopping, it has been found that before adopting e-payment systems, customers' financial benefits and perceived convenience can promote the adoption decision (Tella 2012). More specifically, in the process of using e-payment systems, perceived financial benefits such as lower transaction costs and fixed costs can motivate customers to more frequently use e-payment systems. For instance, transaction costs are afforded by merchants or customers when they launch a business transaction. Fixed costs include costs to install equipment of payment (i.e. payment software and card readers). Hence, customers can enjoy financial benefits of low cost from using e-payment systems since customers only have to afford a minimal charge (Lai 2016). The main benefits why individuals use cash to replace e-payment are diverse. The first main benefit is that e-payment can provide customers with a great rate of convenient usage of credit associated with revolving using e-payment, which indicates the e-payment' benefits as a transactional e-payment platform. The e-payment' benefits originate from two fundamental sources (Okifo and Igbunu 2015). The first fundamental source is that the e-payment' benefits ensure customers minimizing their cash balances, which permits customers to transfer their assets into investments with greater returns (Okifo and Igbunu 2015). The second fundamental source is that the e-payment' benefits can achieve convenience of applying e-payment as a platform to support transactions (Okifo and Igbunu 2015).

Meanwhile, offering customers with a convenient e-payment can enable their abilities to transport, store and spend a currency value by using e-payment, and other important benefits of using e-payment involve cost savings and time savings. But it raises a question whether e-payment can sustain its benefits of cost savings and time savings. For instance, Gholami et al. (2010) have contended that using e-payment may be difficult regarding learning how to use the new technologies and internet.

2.2.2. E-payment Trust and Security

Customers' perceived trust in e-payment is understood as their opinions that transactions of e-payment will be completed based on their expectations. The customer's decision to adopt e-payment is caused by the personal assessment of the trustworthiness towards the e-payment system. It is contended that merchants and customers are more possible to adopt an insecure e-payment system which is provided by a trusted organization compared to using a secure e-payment system which is provided by untrusted organization (Teoh et al. 2013). Trust towards e-payment system is important to encourage customers to use the e-payment system. Scholars propose that the risk appetite and trust are the two important components to influence the adoption of e-payment system. Furthermore, some scholars propose that compared to security, trust is a more important factor to determine the usage of e-payment system such as Kim et al (2010).

Trust plays an important role in various economic activities which can better address uncertainty associated with their results. While using the e-payment system, customers

perceive great risks largely because of lacking face-to-face communication. Trust will improve customers' perceived certainty related to the e-payment's expected behaviors and decrease the concerns of being exploited, particularly while the interaction between merchants and customers including risks (Fatonah et al. 2018). In the e-payment system, trust is important to decrease the financial transactions' uncertainty in order to motivate customers to use the e-payment system (Teoh et al. 2013). In the e-payment system, customers' trust positively influences their continuous usage intention of e-payment.

Perceived security is understood as the customer's personal assessment and experience related to the security of e-payment system. Perceived security can be defined as the subjective likelihood with which customers think that their privacy will not be manipulated, stored or scanned during the process of storing and transiting through improper parties. The e-payment system is actually related to the technical dimensions which enable the major aspects of security, including non-recognition, authentication, confidentiality, and integrity of transactions (Fatonah et al. 2018). The level of expertise and knowledge of the customers accomplished with their previous experience in terms of using similar e-payment system will impact their expectations of using e-payment systems. This is comparatively true in the context of e-payment system offering assurances to satisfy security demands of customers. Customers' perceived security plays a direct influence on their adoption of e-payment system largely because of the sensitive services provided by e-payment system (Alyabes and Alsalloum 2018). From a customer's dimension, security is considered as an essential problem in depending on using an information technology to correctly perform a task. Preserving privacy and security play a great influence on customers' trust in terms of using a technology. Concerns of privacy invasion and hackers will increase the uncertainty related to customers' unwillingness of adopting e-payment system. More specifically, e-payment system can alleviate customers' uncertainty related to the privacy and security of the e-payment system's technological services and infrastructure through offering structural assurances (Scherling and Antinoja 2019).

2.2.3. E-payment User Friendly

Various researched have studied that a technology can be regarded as more user friendly while the technology is easy to adopt (Garrouch 2021). E-payment user friendly can increase customers' trust levels since it has higher usability to decrease the possibility of error, which is an important dimension while offering online financial services. Meanwhile, e-payment user friendly contributes to decreasing customers' time to afford transactions and having a better understanding of the tasks and contents related to e-payment. Therefore, e-payment user friendly generates significant positive influence on customers' desires related to using e-payment. Whether e-payment user friendly is essential to encourage customers to use e-payment needs to be explored, and the e-payment user friendly can be enhanced through continuous innovation to satisfy customers' diverse demands such as offering various characteristics available on e-payment. Apart from the tasks and contents of ensuring e-payment user friendly, e-payment user friendly can also be guaranteed by the dimensions of the propensity, colors, graphics and quality designs to enhance e-payment user friendly (Alademomi et al. 2019). More specifically, e-payment user friendly can be improved through concentrating

on e-payment's technical functionality and design, which can adapt customers' abilities of using the e-payment. E-payment user friendly can be enhanced from the dimension of design features since the design features can directly associate with perceived usefulness and perceived ease of use in order to make e-payment become growingly user friendly (Mohamad and Kassim 2017). For instance, Vinitha and Vasantha (2017) have demonstrated that customers prefer to use e-payment and enjoy the benefits offered by user friendly e-payment. The user-friendly design of e-payment such as clear navigation can encourage customers' adoption of e-payment since user-friendly design of e-payment can effectively attract customers to use e-payment. Hence, it can be concluded that the influence of e-payment user friendly can stimulate customers' desires to use e-payment.

2.2.4. E-payment Technology

E-payment technology can effectively support transaction and technical procedures which are the core of e-payment systems. Based on support of technology, customers can efficiently complete an electronic transaction since the technology can enable customers protecting their privacy and security such as purchasing behaviors and personal information (Riskinanto et al. 2017). Hence, e-payment technology to some extent can promote customers' desires of using e-payment particularly from the dimension of customers' perceived trust. For instance, e-payment technology can offer technical protections (i.e. transaction stability, privacy and integrity). Meanwhile, common procedures of e-payment transactions also require technologies to verify users and provide clear guidance in order to confirm transactions (Mustapha 2018). E-payment technology can guarantee good design to offer customers with growingly faster responses, reliability and convenience, which promote e-payment usage. When customers perceive the e-payment systems are established based on mature technologies, they are less likely to face risks related to using e-payment systems. E-payment technologies can improve the e-payment systems' quality to address customers' problems, which enables the e-payment systems becoming easier for customers to use (Acheampong et al. 2017). E-payment technology also offer supports in the customers' post-usage of e-payment systems, which can strongly impact customers' continuous adoption of e-payment. Hence, it is necessary to analyze how e-payment technologies provide effectiveness and efficiency with customers to complete transactions. Furthermore, e-payment technologies can offer support and maintenance to motivate customers' continuous usage of the e-payment systems (Acheampong et al. 2017).

2.2.5. E-payment Popularity

Over last several decades, the development of e-commerce business in both developing and developed economies is rapid, which indicates that using e-payment systems to complete transactions have become growingly popular (Alzoubi, 2016). For instance, Asian countries have accounted for approximate 50% of the global online business, and China plays a leading role in online business in Asian countries having reached \$681 billion sales, which can explain the reason of e-payment becoming more popular in China (Rana and Sulphrey, 2020). Particularly, the e-payment popularity is influenced by customers' understanding related to online shopping. More customers prefer to engage in online shopping, which promote usage of e-payment platforms to replace cash (Kabir et al., 2015). As the growing popularity of e-payment systems, customers are more willing to transit cash from modern e-

payment systems. Generally, e-payment systems have become growingly popular to afford products and services purchased from online shopping platforms (Widayat et al., 2020).

2.2.6. E-payment Culture

Cultures between different regions may have differences. This indicates that the proper e-payment systems may be different between different countries, which are caused by their cultures and infrastructures (Xena and Rahadi 2019). More specifically, there are a series of cultural factors which influence customers' desires related to using e-payment such as travel habits, the region of residence, mobile phones, the usage of the Internet, internet access and knowledge of computer (Keramati et al. 2017). For instance, the usage of the Internet and the level of knowledge will influence adopting e-payment systems. Additionally, Keramati et al (2017) have stated that culture influences customers' desires of using the e-payment systems from the dimensions of level of education and computer usage.

2.2.7. E-payment Government Policy

In the context of growing popularity of using e-payment systems, it is an essential issue to protect customers' transaction data and information. It is necessary for governments to undertake responsibilities in order to enhance and promote healthy e-payment systems in their countries (Ameerbakhsh et al. 2021). Governments need to issue financial policies to control the e-payment systems in order to encourage customers to use e-payment systems. Hence, government policy plays an important role in effectively executing e-payment systems since government policy is an imperative prerequisite to enhance the usage of e-payment systems. Based on government policy, it can prevent tax evasion and supervise organizations related to e-payment systems, which can strictly supervise e-payment systems in order to increase customers' desires to use e-payment systems (Masihuddin et al. 2017). Government policy can oversee e-payment systems to protect customers' data and information. It has to admit that the e-payment systems are complicated due to its virtual nature, which leads to legal problems (Masihuddin et al. 2017). Hence, government policy can focus on addressing legal issues such as electronic contracts and guaranteeing digital signatures' legitimacy. Hence through government policy, it can guide the e-payment systems to create administrative and legitimate structure which increases customers' confidence to use e-payment systems.

2.2.8. E-payment Social Pressure

Social pressure of e-payment systems is related to customers' adoption of e-payment systems, and these relevant social pressures has reached a global level. The security discrepancy and greater requirements of productivity associated with e-payment systems have worsened the social pressure of e-payment systems. Customers' confidence and trust in the e-payment systems also are sources of social pressure. In order to alleviate social pressure, it is necessary for e-payment systems to ensure customers' privacy and safeguard security. E-payment systems as new innovations will suffer social pressures which decrease customers' confidence, which needs to research the relationship between e-payment systems and social pressures (Masihuddin et al. 2017).

2.2.9. E-payment Behavior

Customer behaviors will influence usage of e-payment systems, and customer behaviors are closely related to using e-payment systems, costs of switching, online service adoption, online consumer behavior, technology acceptance, innovation diffusion and gratification theories (Wiśniewski et al. 2021). Customer behaviors related to e-payment systems have demonstrated that a majority of customers can be considered as prospective adopters in the context of advertising e-payment systems. The customers' behaviors of adopting e-payment systems can be promoted by a great degree of internet accessibility. Customers are more willing to use e-payment systems when they perceive the services provided by e-payment systems with a great level of convenience (Chen et al. 2021). In this dissertation, to study how e-payment behavior influences customers' desires of using e-payment, the following hypothesis is established: Prior studies such as Ozkan et al. (2010) have proposed that ease of use, self-efficacy, benefits, trust and security are significant factors which impact individuals' adoption of e-payment systems. There are few studies which focuses on exploring the mentioned factors in a single country, and relevant studies which have explored these factors are made outside Thailand.

2.3. Hypothesis Development

Based on the above theory, this research puts forward the following 9 Hypothesis:

H1o: the benefits of E-payment significantly affect the willingness of Chinese customers to adopt electronic payment in Thailand.

H2o: the trust and security of E-payment significantly affect the willingness of Chinese customers to adopt electronic payment in Thailand.

H3o: user friendly electronic payment significantly affects the willingness of Chinese customers to adopt E-payment in Thailand.

H4o: E-payment technology significantly affects the willingness of Chinese customers to adopt E-payment in Thailand.

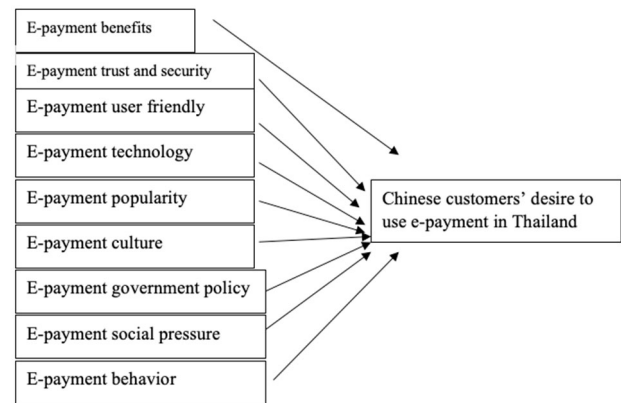
H5o: the popularity of electronic payment has significantly affected the willingness of Chinese customers to adopt electronic payment in Thailand.

H6o: E-payment culture significantly affects the willingness of Chinese consumers to adopt E-payment in Thailand.

H7o: the government policy of E-payment significantly affects the willingness of Chinese customers to adopt E-payment in Thailand.

H8o: the social pressure of E-payment significantly affects the willingness of Chinese customers to adopt E-payment in Thailand.

H9o: E-payment behavior significantly affects the willingness of Chinese customers to adopt E-payment in Thailand.



3. Methodology & Results

3.1. Methodology

In this section, its main objectives are to demonstrate the methodology of data collection and to analyze data. It includes the method of research, the design of research, the method of collecting data, the design of sampling, the design and development of survey, the structure of coding, as well as the reporting and analyzing data. Meanwhile, it also includes reliability and validity of data as well as ethic issues.

3.1.1. Research Method

Research methods include the adopted ways, process and techniques to collect data, and the aims of research methods are to fully understand the research topic as well as to explore new knowledge. There are three categories of research methods which are respectively quantitative research method, qualitative research method and the mixed research method. More specifically, the quantitative research method is adopted to examine the research questions through offering numerical data or results which can be converted into tables and figures. Hence, the quantitative research method is adopted to explore actions, beliefs and behaviors in order to generalize results into a greater scope of population (DeFranzo, 2011). The qualitative research method is adopted to research the potential desires, beliefs and causes. Therefore, the qualitative research method can provide the researcher with valuable insights to create theories and concepts in order to support the quantitative analysis in the future research. In the mixed research method, both quantitative analysis and qualitative analysis will be mixed. According to Kothari (2004), The mixed research method provides a systematic way which integrates statistical results into more theoretical analytics and aspects. In this study, it will apply the quantitative research method since it focuses on evaluating factors which influence the Chinese customers' desire to use E-payment in Thailand, and the factors are respectively e-payment benefits, e-payment trust and security, e-payment user friendly, e-payment technology, e-payment popularity, e-payment culture, e-payment government policy, e-payment social pressure, and e-payment behavior. Moreover, the quantitative research method is selected to generate numerical tables and figures, thus summarizing statistic outcome. To collect data, this study applies the online quantitative survey.

3.1.2. Research Design

The objective of research design is to explore strategies for data collection through costing fewer resources and energy (Kothari, 2004). The research design includes different factors such as how, how much, when, where and what (Kothari, 2004). It contributes the researcher to deciding and

communicating related to the whole designs of the research, the methods of collecting data, the selection of respondents, the analysis of data and the presentation of results. There are three types of research designs which are explanatory, descriptive and exploratory research design (Kumar 2011). Firstly, explanatory research design is also named as causal study which focuses on interpreting the influences on existing operational process related to specific developments. The most frequent approach associated with the explanatory research design refers to experimentation (Theintactone 2018). Secondly, in terms of the descriptive research design, it includes description, explanation, and validity. In the descriptive research, it includes closed-end questions and analyzes frequency, median, average and mean. Thirdly, regarding the exploratory research design, it focuses on addressing research questions without offering any subjective guidance in the research process. Therefore, the exploratory research design contributes to analyzing the unknown research questions. In this study, it will apply the explanatory research design since it can be used to explore the influences of specific changes in current standard process. Through using the explanatory research design, the researcher can recognize the factors which impact the Chinese customers' desire to use E-payment in Thailand, which has not been widely researched in the past academic studies. The negative influence of the explanatory research design is that it does not produce definitive data, but the explanatory research design can permit the researcher to fully explore the factors which impact the Chinese customers' desire to use E-payment in Thailand. Meanwhile, the explanatory research design can also study the relationship between the dependent variable and independent variables.

3.1.3. Data Collection

There are two types of data which are primary data and secondary data. Primary information is the sort of data immediately obtained from the data source without the use of existing records. It is obtained specifically for a research study and can be freely used for other research purposes. Secondary data is the data which someone else has already obtained so which others could use (Formplus, 2020). Primary data will be collected using structured questionnaires for data analysis purpose and the questionnaires will cover e-payment benefits, e-payment trust and security, e-payment user friendly, e-payment technology, e-payment popularity, e-payment culture, e-payment government policy, e-payment social pressure, and e-payment behavior to

fulfil the research objectives and answer the research questions which was presented in Chapter 2.

3.1.4. Sample Design

Sampling is a process that takes a sample from a big group (known as the population) and uses that sample as the basis of estimation about an unknown situation, information, or results that concern the group itself. Sample means the subgroup of the population (Kumar, 2011). Two types of sampling are probability and non-probability sampling. In a probability sampling method, all elements in the population has an independent and equal chance of being selected (Kumar, 2011). In probability, there are simple random sampling, stratified sampling and cluster sampling. Non-probability sample designs are used when elements in the population are not known or are identified individually (Kumar, 2011). 5 types of non-probability sampling are convenience sampling, quota sampling, consecutive sampling, judgmental sampling and snowball sampling. Non-

probability sampling method was chosen as not all members in the non-probability sampling have chances of participating in the study (Bhat, Non-Probability Sampling: Definition, Methods and Examples, 2018). This study intends to use non-probability of convenience sampling method because the method is based on collecting data from people who are convenient to participate in the study. Convenience sampling is a way of getting participants anywhere the researcher can find and usually anywhere convenient (Fleetwood, 2018). In this study, the researcher thinks that by using convenience sampling, the researcher can collect the sample who are Chinese customers using e-payment in Thailand. Moreover, the questionnaires will be collected using Google form and distributed them in Chinese customers using e-payment in Thailand. The researcher has chosen this group because it is reliable for sharing information and it is appropriate for getting the survey data that this study desires. The target population of this study are Chinese customers using e-payment in Thailand. While distributing the Google form questionnaires in a group, the researcher will attach along with the consent form which declare only Chinese customers' experience of using e-payment can fill the questionnaire.

3.1.5. Research Instruments

In questionnaire, it contains two parts which are as follow.

Part 1: Demographic profile which will collect the data of respondents' gender, age, status, level of education, monthly income, and professional status, thus including 6 questions.

Part 2: This part includes factors influencing Chinese consumers' desire to use E-payment in Thailand, which are e-payment benefits, e-payment trust and security, e-payment user friendly, e-payment technology, e-payment popularity, e-payment culture, e-payment government policy, e-payment social pressure, and e-payment behavior. More specifically, there are 3 questions for e-payment benefits; there are 3 questions for e-payment trust and security; there are 3 questions for e-payment user friendly; there are 3 questions for e-payment technology; there are 3 questions for e-payment popularity; there are 3 questions for e-payment culture; there are 3 questions for e-payment government policy; there are 3 questions for e-payment social pressure; and there are 3 questions for e-payment behavior.

3.2. Data Analysis

3.2.1. Regression Analysis

The data that are collected will be generated by entering the data into computer and analyze with statistical tools to get the accurate data and findings. This study's questionnaires will use Cronbach's alpha coefficient to measure the reliability of the questions. The questionnaires will be spread through online, posting in the Google form. The researcher will use descriptive analysis to analyze the demographic part and tourists' behavior part. This part will also show the bar-charts and pie-charts which shows the percentage. Mean scores and standard deviation will be used to analyze 5-point scale questions. Moreover, data from a survey would be evaluated by inferential statistics in this analysis to draw results in population collection and to test the hypotheses and to answer the result. Thus, in order to test the relationship between variables, it will use Pearson's Correlation and regression analysis. Correlation is a method used to analyze the relation between two continuous quantitative variables. The coefficient of correlation of Pearson (r) is a measure of the strength of the connection between the two variables. The coefficient can be from +1 to -1, in which +1 refers to a

positive relationship, -1 indicates a negative relationship and 0 shows there is no relationship at all (Statistics Solutions, 2018). The regression analysis is a set of statistic techniques used to analyze the relationships between the dependent variable and one or more independent variables. This can be used for assessing the strength and modeling of future relationships between variables (CFI, 2018). This research would also analyze the relationship between variables with a maximum acceptable p-value of 5%.

3.2.2. Data Validity and Reliability Analysis

The most basic things to keep in mind when doing a research are reliability and validity. What the instrument measures and how well it does that is known as validity while the trust that the researcher can have on the data is known as reliability. It is all about the degree of control over the random errors that the measuring tool possesses (Kimberlin & Winterstein, 2008). The correlation coefficient, ranging from -1 to +1, is used to quantify the relationship between a test

performance and a business metric. The overall strength of the relationship is known by assessing the number between the -1 and the +1. The better the relationship is, the better the test (Price, 2018). Hence, this study will employ the use of correlation analysis to measure the validity of data. Pearson's correlation analysis is used to measure the strength of the association between dependent and independent variables and this study use Pearson's correlation analysis to test the relationship strength between 5As and tourists' satisfaction.

A reliability test that uses Cronbach's alpha coefficient will also be employed for the whole sample. The test's reliability is shown by this coefficient. It is shown using the letter "r," and is shown in a number that ranges from 0 to 1.00. While $r=0$ means there is no reliability, and $r=1.00$ means perfect reliability. When the value of r is greater than 0.6, it is said to be questionable (Price, 2018). Thus, the researcher has conducted a pilot study for the reliability of this study by using 40 qualified people who were not in the group of the sample. The reliability score of this study is as follows.

Table 1. Reliability score of polit test.

Variable	Score of reliability
Chinese consumers' desire to use E-payment in Thailand	0.78
E-payment benefits	0.81
E-payment trust and security	0.73
E-payment user friendly	0.76
E-payment technology	0.72
E-payment popularity	0.79
E-payment culture	0.82
E-payment government policy	0.84
E-payment social pressure	0.75
E-payment behavior	0.77

3.2.3. Demographic Analysis

There were 485 online questionnaires being collected, which implicated that 485 respondents engaged in the online survey. Their demographic profiles including gender, age, status, level of education, monthly income and professional status. The results of respondents' demographic profiles are exhibited in Table 2.

According to results exhibited in Table 1, in terms of gender, there are 285 males accounting for 58.76%, and there are 200 females occupying 41.24%. Concerning age, there are 80 respondents between 18- and 23-years accounting for 16.49%; there are 170 respondents between 24- and 29-years accounting for 35.05%; there are 100 respondents between 30- and 39-years accounting for 20.62%; there are 90 respondents between 40- and 49-years accounting for 18.57%; there are 45 respondents equal and more than 50 years accounting for 9.27%. In terms of status, there are 200 respondents being single accounting for 41.24%; there are 185 respondents being married accounting for 38.14%; there are 100 respondents being single separated, widowed and divorced accounting for 20.62%. Regarding level of education, there are 65 respondents under bachelor's degree

accounting for 13.41%; there are 130 respondents acquiring bachelor's degree accounting for 26.80%; there are 120 respondents acquiring master's degree accounting for 24.74%; there are 90 respondents acquiring doctorate degree accounting for 18.56%; there are 80 respondents selecting others as their education level accounting for 16.49%.

3.3. Results of SEM

A Structure Equation Model (SEM) was utilized to test the proposed hypotheses. SEM is a covariance technique that evaluates the structured relationships between the observed and latent variables in the model and controls the measurement error while evaluating the relationship. We implemented the two-step approach of Anderson and Gerbing for model analysis. First, we reviewed the measurement model by executing a confirmatory factor analysis and analyzing the validity and reliability of this study. We also scrutinized the adequacy of the model for the data observed. Secondly, we evaluated the conceptual framework by evaluating the standardized coefficients of the structural relationship and their significance and, then, validated the findings and test hypotheses, accordingly.

Table 2. Demographic information analysis.

Item		Frequency	Percentage
Gender	Male	285	58.76%
	Female	200	41.24%
Age	18 to 23 years	80	16.49%
	24 to 29 years	170	35.05%
	30 to 39 years	100	20.62%
	40 to 49 years	90	18.57%
	Equal and more than 50 years	45	9.27%
Status	Single	200	41.24%
	Married	185	38.14%
	Divorced/ Widowed/ Separated	100	20.62%
Level of education	Under bachelor's degree	65	13.41%
	Bachelor's degree	130	26.80%
	Master's degree	120	24.74%
	Doctorate degree	90	18.56%
	Others	80	16.49%
Monthly income	Less than and equal to 15,000-baht	70	14.44%
	15,001-30,000 baht	100	20.62%
	30,001-50,000 baht	130	26.80%
	50,000- 100,000 baht	80	16.49%
	100,001-150,000baht	90	18.56%
	More than 150,000 baht	15	3.09%
Professional Status	State enterprise employee	35	7.22%
	Private employee	180	37.11%
	Self-Employed	100	20.62%
	Searching for a job	55	11.34%
	Retired	30	6.19%
	Students	85	17.52%

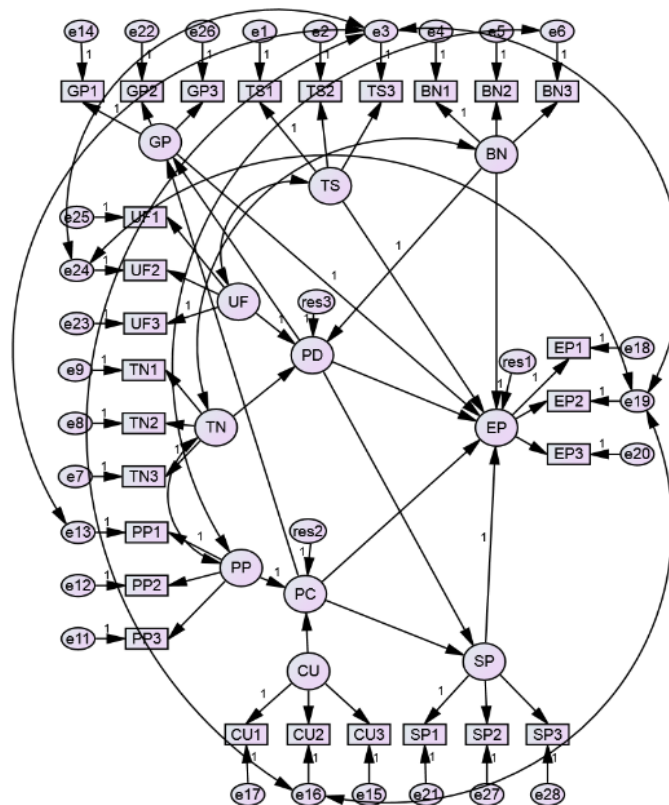


Figure 1. The Conceptual Model

First-order variables: Benefits (BN), Trust & Security (TS), User friendly (UF), Technology (TN), Popularity (PP), Culture (CU), Government Policy (GP), Social Pressure (SP),

Pop Culture (PC), Product value (PD), e-Payment behavior (EP)

The result of our proposed second-order SEM model shows

the followings:

1. RMR&GFI

Model	RMF	GFI	AFGI	PGFI
Default model	.016	.900	.876	.724
Saturated model	.000	1.000		
Independence model	.024	.689	.665	.640

2. RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.052	.047	.057	.269
Independence model	.086	.081	.090	.000

Since the RMSEA for this model is .052 (<.06) and the Goodness of Fit Index (GFI) equals 0.9, therefore the model seems to fit well according to the descriptive measures of fit.

More importantly, Trust & Security (TS) and second-order latent variable called Product value (PD) which represents User friendly (UF) and Technological aspects (TN) of e-Payment system seem to have significant effects on customer desire to use e-Payment due to their p-values are both less than .05. Therefore, Ho2, Ho3 and Ho4 are true.

			Estimate	S.E.	C.R.	P	Label
PC	<---	CU	3.530	8.155	.433	.665	
PD	<---	TN	3.279	1.340	2.447	.014	
GP	<---	PD	.339	.105	3.246	.001	
GP	<---	PC	.175	.400	.437	.662	
SP	<---	PC	.162	.374	.434	.664	
SP	<---	PD	.242	.083	2.933	.003	
EP	<---	BN	-1.438	1.668	-.862	.389	
EP	<---	TS	-.507	.197	-2.572	.010	
EP	<---	PC	-.104	.254	-.407	.684	
EP	<---	PD	-.481	.165	-2.922	.003	

4. Discussion & Conclusion

Through the use of the SEM model, this study expands on earlier research in the area of electronic payment behavior. Finding out what influences Chinese consumers' willingness to accept E-payment in Thailand is the major goal of this study. A SEM research model that includes first-order Benefits (BN), Trust & Security (TS), User Friendly (UF), Technology (TN), Popularity (PP), Culture (CU), Government Policy (GP), Social Pressure (SP), Pop Culture (PC), Product Value (PD), and E-Payment Behavior is established in order to accomplish this goal (EP). a dependent variable, too (the willingness of customers to use E-payment). Participants' replies are measured using quantitative questionnaires. SEM modeling is the statistical analytic technique employed in this work to test all presumptions.

According to the findings, among the SEM model's nine independent variables, Trust & Security (TS), User-Friendliness (UF), and Technology (TN) had the greatest influence on consumers' propensity to adopt E-payment. Customers may finish their purchases more quickly, realize efficient online shopping, and experience the effectiveness of E-payment thanks to the security, accessibility, and technology of the E-payment system. The market should pay close attention to customers at this nascent stage since they have a strong need to pay for products and services in any circumstance. As a result, the challenge for pertinent service providers is to create and market mobile payment solutions and gadgets in a way that consumers deem to be highly appropriate for their clients.

References

- [1] Abrazhevich, D. (2004), "Electronic payment systems: a user-centered perspective and interaction design", PhD thesis, Technical University of Eindhoven, Eindhoven.
- [2] Acheampong, P., Zhiwen, L., Antwi, H. A., Otoo, A. A. A., Mensah, W. G., & Sarpong, P. B. (2017). Hybridizing an extended technology readiness index with technology acceptance model (TAM) to predict e-payment adoption in Ghana. *American Journal of Multidisciplinary Research*, 5(2).
- [3] Alademomi, R. O., Rufai, O. H., Teye, E. T., Sunguh, K. K., Ashu, H. A., Oludu, V. O., & Mbugua, C. W. (2019). Usage of E-Payment on Bus Rapid Transit (BRT): An Empirical Test, Public Acceptance and Policy Implications in Lagos, Nigeria. *International Journal of Business and Social Science*, 10(2).
- [4] Alhanoof, F. A., & Othman, A. (2018). Factors Affecting Consumers' Perception of Electronic Payment in Saudi Arabia. *European Journal of Business and Management*. Vol.10, No.27.
- [5] Alikhani, A., & Davarzani, M. (2014). An investigation on factors influencing electronic banking adoption in private banks versus public banks. *Management Science Letters*, 4(1), 37-42.
- [6] Alyabes, A. F., & Alsalloum, O. (2018). Factors affecting consumers' perception of electronic payment in Saudi Arabia. *European Journal of Business and Management*, 10(27), 36-45.
- [7] Alzoubi. (2016). A Study on the Usage of Arabic E-Commerce Websites Services among UAE Citizens. *Account and Financial Management Journal*, 1, 401-407.
- [8] Ameerbakhsh, O. Z., Alfadli, I. M., & Ghabban, F. M. (2021). Factors Affecting Saudi Consumers' Acceptance Towards the Use of Electronic Payment. *Design Engineering*, 1212-1224.
- [9] Amoroso, D. L., & Magnier-Watanabe, R. (2012). Building a research model for mobile wallet consumer adoption: the case

- of mobile Suica in Japan. *Journal of theoretical and applied electronic commerce research*, 7(1), 94-110.
- [10] Barkhordari, M., Nourollah, Z., Mashayekhi, H., Mashayekhi, Y., & Ahangar, M. S. (2017). Factors influencing adoption of e-payment systems: an empirical study on Iranian customers. *Information systems and e-business management*, 15(1), 89-116.
- [11] Chen, A., Walker, J., McCalman, D., Elkhoully, S. E., & AbdElDayem, M. (2021). Attitudes and Behaviors of Egyptians Towards E-Payment Services. *Journal of Organizational Psychology*, 21(5), 51-65.
- [12] Cochran, W. G. (1953). *Sampling techniques*. Oxford, England: John Wiley.
- [13] Embalzado, H., Zhu, B., & Charoennan, W. (2019). Consumers' Understanding on Cashless Payment: A Qualitative Study in Bangkok. Bangkok: 1st ICBE.
- [14] Fatonah, S., Yulandari, A., & Wibowo, F. W. (2018, December). A review of e-payment system in e-commerce. In *Journal of Physics: Conference Series* (Vol. 1140, No. 1, p. 012033). IOP Publishing.
- [15] Garrouch, K. F. (2021). Explaining the comparative perception of e-payment: role of e-shopping value, e-payment benefits and Islamic compliance. *Journal of Islamic Marketing*.
- [16] Gholami, R., Ogun, A., Koh, E., & Lim, J. (2010). Factors affecting e-payment adoption in Nigeria. *Journal of Electronic Commerce in Organizations (JECO)*, 8(4), 51-67.
- [17] Harris, H., Guru, B. K., & Avvari, M. V. (2011). Evidence of firms' perceptions toward Electronic Payment Systems (EPS) in Malaysia. *International Journal of Business and Information*, 6(2), 226.
- [18] Hoehle, H., Scornavacca, E., & Huff, S. (2012). Three decades of research on consumer adoption and utilization of electronic banking channels: A literature analysis. *Decision Support Systems*, 54(1), 122-132.
- [19] Johar, M. G. M., & Awalluddin, J. A. A. (2011). The role of technology acceptance model in explaining effect on e-commerce application system. *International Journal of Managing Information Technology*, 3(3), 1-14.
- [20] Junadi S (2015) A model of factors influencing consumer's intention to use e-payment system in Indonesia. *Proc Comput Sci* 59:214–220.