A STUDY OF FACTORS INFLUENCING CUSTOMERS' ACCEPTANCE OF MOBILE PAYMENTS IN MALAYSIA

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MASTER OF BUSINESS ADMINISTRATION

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I hereby declare that:

(1) This Research Project is the end result of my own work and that due acknowledgement has been given in the references to all sources of information be they printed, electronic, or personal.

(2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

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DEDICATION

I would like to dedicate this research to my family and friends, especially my parents. Without their encouragement and support, this research would not be possible.

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Preface

The objective of this study is to evaluate the variables affecting customer acceptance on new payment method, mobile payment. The study focuses on Malaysian especially in Selangor are which have the highest penetration of mobile user. The mobile payment user is growing based on the findings of previous researchers. Hence, researchers are keen to determine the factors influencing mobile payment acceptance.

On the other hands, this research study how the relationship between independent variables (Personal Innovativeness, Social Influence, Perceived Compatibility, Facilitating Conditions) and dependent variables (Behavioral Intention). This study would able to provide better understanding on the factors influencing customer acceptance on mobile payments.

Lastly, I hope that this study could provide better insight and information of the customer acceptance on mobile payment

Abstract

The innovation of mobile technologies has changed consumer daily life especially the payment method, which is the fast growing payment channel as substitute for the traditional payment method. Government and merchants has done a lot of promotion activities to increase the acceptance level of mobile payment .However, the acceptance level of mobile payment in Malaysia is low. The findings of this research show that there is relationship between independent variables (Personal Innovativeness, Social Influence, Perceived Compatibility, and facilitating condition) and dependent variable (behavioral intention).

CHAPTER 1

INTRODUCTION

1.0 Introduction

This study is to study the factors that affecting the acceptance of customer on mobile payment. This chapter will discuss about the background of study, problem statement, research objectives and questions as well as the significance of the study.

1.1 Background of the study

The world witnessed the evolution of the industry and experienced the changes of the modern lifestyle, for example the introduction of financial technology. The industry had evolved to industry generation 4.0 which referring to the trend of automation and data exchange in the manufacturing technologies. According to Reinfurt, Falkenthal, Breitenbücher, & Leymann(2017), creates a "smart factory "illusions which involving the cyber-physical system and industry internet of Things (IoT) to the industrial production systems. According to Marinova,Ruyter,Huang, Meuter,& Challagalla, (2017), the evolution of industry 4.0 and creation of smart technology , had empowering the customer life cycle and improve the interaction between the enterprise and customer throughout the life cycle. The evolution of the industry had bring the rapid growth of e-commerce, which referring to the selling and buying online which including electronic funds transfer, ,automated data collection systems and so on. The increasing in the mobile device usage rate had play a role in this new

era which bring the new lifestyle and introduce online payments. The changing of lifestyle not only bring the convenience to human life but also provide more payment choices for customer to make their life easier.

According to Liébana-Cabanilla, Ramos de Luna & Montoro-Ríos (2017), any wireless instruments that use for active and confirm payments are categorized as mobile payments. Mobile devices such personal digital assistants (PDAs), smartphones, tablets which can function to transmit all kinds of data and provide services to pay for the products and services. Melanie Pinola (2017) had categorized the mobile payments into few categories which are Everyday Transaction, Point of sale Payments, closed loop mobile payments, carrier payments ,mobile card reader and mobile payment apps (Apple pay , Samsung Pay, Alipay et.al). There are many more mobile payments apps and alternatives have introduced to make human life easier and increase the living status.

The introduction of Mobile Payment had decrease the risk burden of carry a physical cash and wallets, and save customer times for queue (Pham & Ho, 2015). According to Hoofnagle, et al. (2012), Customer will no longer associated with the risk of carry bulky physical cash as the introduction of mobile payment has change the payment behaviour of customers whereby more towards cashless society. Customer can easily pay their bills and make payments with through online platform. Besides that, mobile payments also increase the engagement of customer as the purchase process are much easier for them. For the business, the checkout process also speed up with the availability of mobile payments options.

According to The News Strait Times, Francis Dass(April 27,2017) reported that Malaysians are interested and have the intention to adopt mobile payments as an alternative to replace the physical cash and cards. The statement has strongly supported by the Mobile Attitudes Study which were carried by YouGov in 2017, reported that 70% of 750 participants have the intention to adopt the technology. The awareness level of the cashless payment among Malaysians had recorded as 83% and 34% of them are using Mobile Payment services. Based on the news from Retail News Asia ,wrote by Redaction Asia on 12/12/2017 revealed that 70% of the online

transaction on Single's Day and Mycyber Sales in Lazada,11 Street and Shopee were completed through mobile devices. This data was reported by ipay88, the leading regional payment gateway provider in South East Asia. These report shows that Malaysians are ready for the mobile payment options.

Thus, mobile payment has become another alternative for customer to make their bills which are easier and convenience for them. But the adoption of mobile payment in Malaysia is still at infant stage compare to other country such as china and Singapore (Tan et.al, 2014). Most of the Malaysian tends to remain the current payment option such as cash. It is important to encourage and persuade Malaysian to adopt this payment system as a lot of companies are doing a lot of investment in order to build up the systems.

1.2 Problem Statement

Mobile payment growth are in line with the growth of mobile commerce (M-commerce), which referring the selling and buying of goods and products are conducted through wireless device such as smartphone. The growth of mobile commerce are in line with the growth of internet user. According to the report of Visa in 2017, revealed that the digital population in Southeast Asia are increasing incredibly, where the growth rate of the new internet user are four times faster than the general population. Malaysian Communication and Multimedia Commission (MCMC) in 2017, showing that the 89.3% of Internet user are using smartphone to access internet , and the mobile penetration rate had recorded as 140% . This phenomena shows that the Malaysian customer have been inadvertently exposed to mobile services especially mobile commerce and payment. Visa customer payment attitude survey in 2017, also reported that customer are starting to purchase certain category products using their mobile device, for instance, in Malaysia , starting from 2014, 75% customer are started to purchase grocery by using mobile commerce platform .

The influx of technology and innovation has transformed not only the way we shop but also transformed the way of making payment, where the mobile payment had been introduced. The cash transaction are declining from years to years as customers are changing their payment method to cashless payment method which can be card and mobile payment . According to Leong,Hew,Tan and Ooi (2013) , the mobile payment is not a new idea or new services in the industry, as the payment method has been launched and practised in developed country such as Canada (Shaw,2014) and United State (Shin,2009). .Convenience is the key factors that trigger the acceptance of mobile payment among customers. However, in Malaysia, the acceptance of mobile payment are not as high as other country such as china . According to the study conducted by Nielson (Nielson Global Survey of Mobile Shopping, Banking & Payment , 2016) ,showed that the the main activities of Malaysian using their mobile phone is for making purchase is only around 34%, which reflect that the acceptance of mobile payment in malaysia is still low . Yet , the growth of the mobile payment in Malaysia can be seen in these years especially when Alipay and Wechat pay stated to enter Malaysia market.

According to Bank Negara Malaysia, the mobile payments are still new and in the early stage of development in Malaysia. To accelerate the growing of mobile payment in Malaysia, Bank Negara had included the mobile payment in the Financial Sector Blueprint 2011-2020. In order to accelerate the migration to mobile payment, Bank Negara had carried out several initiatives such as the Payment Card Reform Framework (PCRF) and Interoperable Credit Transfer Framework (ICTF). The ICTF are aims to ensure the customer accounts either bank or e-wallet account are reachable via an interoperable network to facilitate the adoption of mobile payments .As results of the mechanism introduce , there is significant adoption of digital transaction in Malaysia. For instance, number of mobile banking accounts had increased to 11.5 million in 2017 compare to 2011, which only have 1.6 million transactions.

The high mobile penetration rate, changing customer payment attitude, and also the incentive carried out by bank had created the opportunities to accelerate the acceptance of mobile payments.. Thus, it is crucial for the study of the factors that affect customer acceptance of mobile payment in Malaysia. The mobile payment methods are very vital for the electronic and mobile commerce business to achieve a competitive advantage in industry. Past researches have given limited study and understanding on the factors influencing the customer acceptance of mobile payment services in Malaysia. This study is aim for provide insight and explore in the mobile payment services in Malaysia by investigating the possible factors that affect the acceptance of Malaysia customer adopt the mobile payment services.

1.3 Research Objectives

1. To understand the factors that influences the customer acceptance of Mobile Payments in Malaysia.

2. To study the effect of personal innovativeness on customer's intention to accept Mobile Payment.

3. To study the effect of social influence on customer's intention to accept Mobile Payment.

4. To study the effect of perceived compatibility on customer's intention to accept Mobile Payment.

5. To study the effect of facilitating condition on customer's intention to accept Mobile Payment

1.4 Research Questions

1. What is the factors that influence customer's intention to accept Mobile Payments?
2. Does the personal innovativeness affect customer's intention to accept Mobile Payments?
3. Does the social influence affect customer's intention to accept Mobile Payments?
4. Does the compatibility affect customer's intention to accept Mobile Payments?
5. Does the facilitating condition affect customer's intention to accept Mobile Payments?

1.5 Hypothesis of the study

H1: There is relationship between Personal innovativeness and customer's intention to accept Mobile Payments.

H2: There is relationship between Social influences and customer's intention to accept Mobile Payments

H3: There is relationship between Perceived Compatibility has the positive effect on the customer's intention to accept Mobile Payments

H4: There is relationship between Facilitating Conditions have the positive effect on customer's intention to accept Mobile Payments

1.6 Significance of Study

The finding of this study will contribute valuable information and details about the customer acceptance of Mobile Payments in Malaysia. The mobile payment service providers can have better understanding on the factors that influencing the acceptance of mobile payment services. This study also could serve as a guideline for merchants who plan to adopt the mobile payment in their business operation. Besides that, this finding of the study also could help business to increase the customer satisfaction and expectation by improving their services and performance. The business profit can be increase as the expectation of customer fulfilled.

1.7 Summary

As conclusion, this chapter providing a picture and general understanding background of the study, research objectives, and question as well as the significance of the study. The next chapter, Chapter 2, exploring the literature review of the factors of influencing the customer acceptance of mobile payment. The relationship of the factors and customer acceptance of mobile payment will be discussed in the next chapter.

Chapter 2

Literature Review

2.0 Introduction

This main objective of this study is to determine the factors that affect the consumer acceptance on mobile payments. The aim of this chapter is to provide an overview of the mobile payment and the factors influence consumer's acceptance.

In this chapter, an overview and the definition of mobile payments will be introduced to build a common understanding of the conceptualism. Relevant of the studies has been review to hypothesis the relationship between the factors and the consumer acceptance of mobile payments. The conceptual framework will be proposed as well to describe their relationship.

2.1 Payment System

Payment systems are essential to business as it is the mechanism that use for the complete of the transaction and trigger the customer-brand interaction. People involved in the activities of exchange the products and services throughout the ages. Payment method evolved from the barter system, metal coins,gold , paper money , credit card and now the payment is in the smartphone , called mobile payment. Over the past ten years, the payment system has expand to several channel such as online, ATM, credit card and so on.The payment system had evolving as the innovation of

the technology and the transforming of payment system are needed as it is necessary for the imperative of the business growth and increase the efficiency.According to a 2016 report from the Federal Reserve, there is only 32% of all consumer payments were in cash, the remaining is non- cash payment. This phenomena is due to customers are enjoying the benefit of the ease and convenience that bring from the non-cash payment method such as credit card, online and mobile payment. The influx of the innovation of technology had bring the changes of the payment system and improve the customer satisfaction at the sometimes.

2.2 Mobile Payment Overview

The revolution of the mobile technology brings the changes to the worlds, whereby the global banking and payment process has been digitalize . Besides that, with the rapid growth of e-commerce , the online transaction are very much needed as it is ease for the transaction and bring convenience for both buyer and seller. The transformation of payment system along with the growth of the business world and the innovation of the technology.

Unlike the credit card, nowadays user is able to make payment by creating the account and approach the website to complete their transaction. Several option of digital payments has offered to public in order to increase the convenience of making payment, system such as Payments Cards (referring to debit and credit card), digital and mobile wallet as well as other contactless payment method. The emergence of digital payments method enable user to make payments with more convenience and confidence in the virtual marketplace. Business sectors recognizing the potential of the mobile technology which could help them in maximize their profits, reducing the cost as well as increasing the satisfaction level of their customers. The mobile payment concepts were started around 1997 where Coca Cola Company started to accept the payment through the mobile phone via text message.

2.3 Definition of Mobile Payment

Mobile Payment is the term that describe the transaction method for good and services through the mobile devices or Personal Digital Assistant (PDA) as well as other wireless communication technology (Zhong, 2015) . Mobile payment mostly can be approached through downloading the application in the mobile devices. Users are required to register and sign up for the account and set up the account with their bank account, credit or debit card. The transaction of the payment is completed when user provided the PIN code to authorize the transaction. Mobile payment method play an important role in trigger and enhance the performance of mobile commerce market as well as the economy performance as it brings the ease and convenient in the transaction for all parties in the market (Dinh, V. S., Nguyen, H. V., & Nguyen, T. N. 2018). Dahlberg et al. (2008) defined that the mobile payments as the alternatives for the transaction for goods, services and bills by utilizing the capability of wireless of communication technology such as the mobile wallet. Liu, Kauffman, and Ma (2015) has define the mobile payment by adding aspect "other forms of economic transaction. While Liébana-Cabanillas., Ramos de Luna, & Montoro-Ríos (2017) defined that the mobile payments as any wireless instruments that use for initiate and confirm the payment are belong to the mobile payments category.

Ondrus & Pigneur (2007) defined that the mobile payment transaction was the payments that carried out by at least one mobile device.

Ghezzi, Renga, Balocco, and Pescetto (2010) defined the definition of mobile payment as "a process in which consist the phase of the transaction is conducted using a mobile device capable of securely processing a financial transaction over a mobile network, or via various wireless technologies".

Slade, Williams, & Dwivedi (2013) define that the mobile payment transaction process involving three parties which are customers, merchant and bank, which are different from the mobile banking which are direct between consumer and bank.

In this research, the mobile payments systems are defined as the alternative electronic payment channel which completed the transaction by using the mobile phone devices such as smartphone .Thus, this research are focusing the research on the payment services that are completed by using mobile phone.

2.4 Types of Mobile Payment

The high penetration of mobile device has caused the changes in payments method which change from traditional methods to cellular mobile payments. Mobile Payments act as a backbone of e-commerce as the integration of mobile device and payments systems has created a more safety and convenient payments method for peoples (Herzberg, 2003).

The first payment transaction done through mobile phone was conducted through Short Messages Services (SMS) , where the services provider will send the confirmation message to user once they were select the purchase option. Once user confirmed the message, the charges will be charged on user account. According to Chang, Y. P., Lan, L. Y., & Zhu, D. H. (2018), defined that the mobile payments services was utilizing the information and communication technology such as telecommunication networks. According to Chen & Nath (2008) classified the major forms of mobile payments can be categorized into two which are cellular mobile payment and contactless mobile payment. This research was conducted to test on the customer acceptance on these two types of mobile payment which are listed below:

i) Cellular mobile payments

This payment method is made by using mobile devices through online and points of sale transactions (POS). Consumer may link their mobile devices with their accounts such as bank account or any transaction account (such as PayPal). The procedures of payments start when consumers initiate the payments through their mobile device. Followed by the confirmation of transaction after consumer receives the PIN number or password from service provider in order to fill in and complete the transaction. Once the transaction is complete, a message or email will sent to consumer to notify them on the status of the transactions.

ii) Contactless mobile payments

This payment method refers to the "wave & go "payments method which means there is no contact required between the payment device and the merchants interfacing reader. Contactless mobile payment including the payments completed with radio-frequency identification (RFID) and Near Field Communication (NFC) (Attaran, 2006). For an example, Apple Pay, Samsung Pay, Boost, Grab Pay as well as others contactless mobile payments .

2.5 Factors Affecting Mobile Payment Acceptance

Mobile payment systems are getting famous among people especially generation X, Y, Z who is more technology elite compare to old generation. The mobile payments has been studied by many researchers, and most of them are aim to determine the factors that influence the acceptance and adoption of the mobile payments systems (Dahlberg & Ondrus, 2015.). Some of the researcher are in the opinion that the acceptance of mobile payments are initiate from the psychological factors such as perceived of

usefulness and perceived ease of use which are used in the Technology Acceptance Model (Davis, 1989) , behavioural beliefs (Chen, 2008), social influence and personal traits (Yang, Lu,Gupta,Cao,& Zhang,2012).

A qualitative research exploring customer adoption of mobile payment was done by Mallat (2007). The research was conducted at Finland as the penetration of mobile phone in Finland was high. The research was identified the factors that affecting consumer adoption of mobile payments such as relative advantage and compatibility. In majority of past study which was focused on the mobile commerce and payment arena, had mentioned the competitive advantage of mobile payments is their independence of the time and location (Carlsson, Walden, Bouwman, 2006).This relative advantage has attracted majority of people were willing to try the new technology.

Yang (2005) conducted a quantitative research on 866 Singaporean Students to examine their acceptance and adoption of mobile commerce. This paper shows that the perceived of usefulness, perceived ease of use, consumer innovativeness adoption behaviour and demographics have the relationship with the customer adoption of mobile commerce in Singapore.

Dahlberg, T., Guo, J., & Ondrus, J. (2015) had review the past literature and research on mobile payments and analyse the factors that had studied in the past research. The summary of the factors that has been studied by previous research has shown below.

Factors study in past research	No of Article
Perceived Ease of Use	23
Perceived Usefulness	22
Trust	22
Risk	21
Demographic	15
Security	15

Compatibility	10
Social Influence	10
Cost	10
Mobility	10
Convenience	7
Subjective Norm	7
Personal Innovativeness	6
Habit	6
Privacy	5
Self-efficacy	5
Quality	5
Experience	4
Payment Scenario	4
Income	3
Image	3
Knowledge	3
Satisfaction	2
Uncertainty Avoidance	2
Technological Impulse	2
Complementary	1
Complexity	1

Table 1: Factors that has been studied in past research; Adopted from Dahlberg, T., Guo, J., & Ondrus, J. (2015).

2.6 Theoretical Foundation

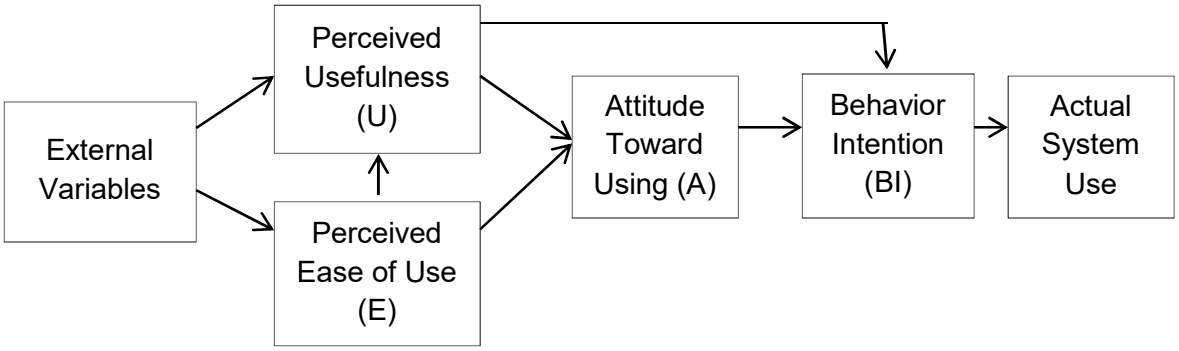

Figure 1: Technology Acceptance Model (TAM)

David (1985) introduced the Technology Acceptance Model (TAM) to study the user behavior towards the new technology. This model is widely used by researches in the study the acceptance of information. System, as it helps to increase the better understanding about the user behavior in acceptance of Information system. TAM model mainly focus on two major factors which is perceived usefulness and perceived ease of use. Researchers tried modified the TAM model by adding various variables in order to have better understanding on the user attitude and behavior. Chau (1996) modified the TAM model by adding new element in perceived usefulness variables: near-term and long term to increase the understanding from different perspective.

TAM has better ability to explain the behavior of acceptance of new technologies. In order to study the acceptance of different technologies, several of factors has added to TAM model.

2.7 Behavioral Intention (Dependent Variables)

Behavioral Intention is referring to the situation where an individual have the possibility in engaging to certain activity and behavior. Intention helps to set up a framework for an individual to choose the priorities and utilize the resources to in engaging certain activity. Once the individual have the intention, the person will tend to take action on it. This research involved the measures of the behavioral intention which consistent with previous study showed the relationship between behavioral intention and acceptance of technology. Most of the behavioral theory is in the view that the best predictor of an individual behavior and attitude is based on the individual intention whether they wanted to be engage in the behavior. Ajzen (1991) defined the terms "Intention" as the willingness and the effort that an individual are willing to put in attaining their goal. The relationship between the behavioral intention and the technology acceptance has been well documented by most of the research (Davis, 1985; Davis et al.1989; Venkatesh et al. 2003). The higher the user's intention towards new technologies, the more easy for them to accept the technologies.

In this study, customer's intention is a dependent variable that could help in estimating the actual usage of a certain things which could lead to attitude formation. This opinions are constant with various models which stated that an individual' behavioral intention to accept a technology or learning skill is importance as it will leads to the acceptance and adoption of the skill and expertise (Ajzen and Fishbein, 2005) .

2.8 Independent Variables

2.8.1 Personal Innovativeness

Personal Innovativeness has been studied as one of the factors that influence the acceptance towards new things (Lu, J., 2014.). Siu, N. Y. M., & Chang, L. M. K. (2014) defined personal innovativeness as the readiness of the person in the risk taking propensity. This definition has adopted in this study. An individual with the high personal innovativeness characteristics are more willing to take the opportunity to try the new things and have the ability to collaborate with uncertainty. Rogers (1995) mentioned that the individual with personal innovativeness characteristic are the key characteristic in the innovation diffusion research. Basically, the individual with personal innovativeness are having the "innovators" characteristic which mentioned in innovation diffusion theory. They are the group of individual who are ready to attempt the new things (Thakur, R., Angriawan, A., & Summey, J. H. , 2016).

Based on the diffusion of innovative theory, the acceptance and adoption of a new things such as Mobile Payments system which are high technology product are impossible happen simultaneously in the society (Rogers, 1995) . The acceptance of new technology started with personal innovative which defined as the willingness of an individual to try out the the new technology (Turan, A., Tunç, A. Ö., & Zehir, C. (2015) . Agarwal and Prasad (1998) had conducted the research to investigate the relationship of personal innovativeness in Information Technology (IT) and shown that there is relationship between the individual innovation and acceptance of new technology. Another study shown that the personal innovativeness has the direct influence to the adoption of information technology (Lu,J, 2014)

According to Ayub, A. F. M., Zaini, S. H., Luan, W. S., & Jaafar, W. M. W. (2017), in their research shown that the personal innovative have the significant relationship with the mobile learning adoption where people with high innovative are more willing in gathering information and learn new things. Hence, students who are high

in personal innovativeness are more willing to explore and initiate to seek information to try new things. Past studies were also revealed that the personal innovativeness have the impact on influencing the acceptance of technology innovations (Lu, Y., Yang, S., Chau, P. Y. K., & Cao, Y. (2011)

For the acceptance and adoption of new technology such as mobile payments, most of people are lack of the knowledge and information of the mobile payments progress. The curiosity within an individual may trigger them to seek information to increase their intention and confidence in handling and accept new technology. As the individual are high in the personal innovative in information technology, it can be estimate that the individual have the positive intention towards the acceptance of the new technology (Turan, A., Tunç, A. Ö., & Zehir, C., 2015)

An individual with high innovative are more risk taker and information seeking regarding the new technology (Dai, L., Maksimov, V., Gilbert, B. A., & Fernhaber, S. A., 2014). According to Kim, Mirusmonov & Lee (2010) mentioned that the personal innovativeness have the potential to become the factors to determine the acceptance of technology such as mobile payment.

H1: There is relationship between Personal innovativeness and customer's intention to accept Mobile Payments

2.8.2 Social Influence

Social influences are commonly known as the changes of the attitude and behavior of an individual, whether intentionally or unintentionally influence by others which have the close relationship with the individual. Venkatesh et al. (2003) explained social influence as the environment around an individual that trigger the person to use or not to use an innovation. Social influence will affect the acceptance of an innovation of a person is based on the belief that the individual are tempt to more believe in the

opinion of the others people especially those who are important and have the closer relationship with them . In reality, an individual having the tendency of gathering the information of the product from surrounding people. Koenig-Lewis, Nicole, Marquet, Morgan, Palmer, Adrian and Zhao, Anita Lifen (2015) defined social influence as the opinion and the feedback of the references group which help in decreasing the anxiety and the uncertainty on the acceptance of the new technology. Several studies also discussed and tested the direct relationship between social influence and the acceptance of a new technology (Thakur, 2013; Slade et al, 2015; Koenig, 2015). This shows that the pressure from social are important as it could influence customer to test and adopt new technology.

Social influence was classified as one of the cognitive behavior with the categorizing of three process which are compliance, identification, and internationalization (Bagozzi, R. P., & Lee, K. H., 2002). Compliance occurs when an individual are accept the influence with the objective of obtaining the favorable reaction from the other person or group. Identification is referring to the influences from the person that an individual liked, admire and respect such as famous celebrity, references group. While Internationalization is referring to the influences that an individual accepted publicly and privately (Kelman, H. C, 2017).

This process can be categorized into two type's influences which are normative and informational influences. Normative influences occurs when an individual are comply the expectation of others while for the informational influence occur when the individual accept the information as the evidence in reality (Lorenz, G. V., & Buhtz, K., 2017).

Social influence play a vital role in acceptance of new technology especially in the stage of diffusion and development, this is because the user are lack of information and confident towards the new technology. However, the anxiety and the perceived of risk of the new innovation decrease as they able to obtain the information in detail from the person they trust and indicating the appropriateness of the acceptance

(Karahanna et al., 1999; Lin, K. Y., & Lu, H. P. ,2015) . The strength of the social influence is depend on the relation level of the individuals, characteristic of the innovation and others variables (Lin, K. Y., & Lu, H. P,2015).

Salancik & Preffer (1978) had proposed that the intention of an individual will be affect by others opinion, ideas and information of people that the person communicates. Social influence will bring the big impact on influencing the commitment of an individual when they meet the new technologies. Hence, this study propose that there is direct influence of social influences and customer intention in accept the mobile payment.

H2: There is relationship between Social Influences and customer's intention to accept Mobile Payments

2.8.3 Perceived Compatibility

Compatibility referring to the degree where innovation is meets the values and experience of potential customers. Rogers (1962) had introduced the concept of compatibility as the "consistency of existing value, needs and past experience of past adopters". Compatibility has been tested and proven that have the direct influence on the intention in accept new technology (Pham, T. T. T., & Ho, J. C.,2014; Hanafizadeh, P., Behboudi, M., Koshksaray, A. A., & Tabar, M. J. S., 2014).

The higher compatibility of an innovation or technology, the less changes needed, the faster the user accepts the technology. If the technology needed user to adjust and make changes of their behavior and attitude, it would make the user reluctant to adopt the new technology (Mairura, K. O., Ngugi, P. K., & Kanali, C, 2016). Besides that, the past experience in trying a new technology will also affect the adoption of current technology. If an individual have the negative experience in adopting the previous technology, then the individual will tend to refuse to accept the new technology and changes. The compatibility of technology have the impact on the decision to adopt a

new technology is due to the technology are require user to have some changes in their existing activities and practices with the objectives of maximizing the benefit of utilising the technology (Mndzebele, N., 2013).

In mobile payment technology context, compatibility is referring to the ability of payment system to meet the standard at the interface. The compatibility of the mobile technology is vital as the hardware and the software of the mobile is developed independently and are expected to provide the best performance for the user. Hence, the mobile compatibility are mostly tested in order to ensure the functionality of the mobile to able to meet the expectation from their users , at the same time boosting the intention of user to accept the new technology. In mobile payment system context, the compatibility of the system could be texted based on the availability and the integration of the payment system at the point of sales (POS) , to prevent the systems are not able to use at certain destinations. The successful of the integration with the POS system would help to easy enter the industry and increase the productivity of employees as well as increase the customer satisfaction (Li, H., Liu, Y., & Heikkilä, J., 2014).If the mobile payment system can be well integrated into the customer daily life will caused the compatibility of the mobile payment systems have the impact on the user's intention in accepting the payment systems (Pham, T. T. T., & Ho, J. C., 2015)

H3: There is relationship between Perceived Compatibility and customer's intention to accept Mobile Payments

2.8.4 Facilitating Condition

Facilitating condition referring to the situation where the user are in belief that the technology is exist with the objective of providing necessary assistance when needed (Venkatesh et al., 2003) . When using the mobile payment services, the user are required to have the basic technology knowledge such as the using their smartphone, connected to the internet, installing the software applications, storing the necessary

payment information for complete the transactions, this will help to accelerate the acceptance of mobile payment. The mobile payment system are still new and unfamiliar for most of the people , additionally, there have different mobile payment systems with different payment method such as using debit card or e-wallet are available in the market. User need a set of favorable tutorial for guiding them in use the payment , for example the online tutorial and support chat , which could increase the understanding of user and increase the intention to use the mobile payments systems . Chen and Chang (2013) has tested and proven that the facilitating condition have the positive effect on the adoption of the near field communication technology.

Yang and Forney (2013) found that the facilitating condition had the impact on the acceptance of the mobile shopping. In their research, they referring the facilitating conditions as the situation where the mobile capability are able to support users to carry out activities , and the fees involved are also low for them to receive the services. The compatibility of the website also creates the condition which could facilitate the acceptance rate of the new technology. The study emphasis that the facilitating condition has the bigger impact on affecting the acceptance of customers, as improving the facilitating conditions will help to decrease the anxiety of customers, removed the technology barriers and create the customer centric interface condition.

Venkatesh et al. (2003) emphasized that the facilitating conditions is the main impact that could bring the largest effect on the intention of user in acceptance of the new technology. This is due to the sufficient of resources and facilities will create the positive attitudes from users to accept and adopt the new technology. Thus, this study is to study the relationship between facilitating conditions and the customers' behavioral intention.

H4: There is relationship between Facilitating Condition and customer's intention to accept Mobile Payments

2.9 SUMMARY

This chapter explained on how the hypothesis was developed by using past research and journals. This chapter has a depth review in some variables that influence the customer acceptance in mobile payment technology. From the past researchers or past journals, the data was use as guidelines to developing hypothesis, conceptual framework and set the questionnaire

Chapter 3

Research Methodology

3.0 Introduction

This session is about the methodology that used to investigate the relationship between the mentioned variables and the customer acceptance of mobile payments. This session consists of the research framework, research hypothesis, research design, sampling design, and data collection method, operationalization, questionnaire as well as pilot test.

3.1 Research Framework

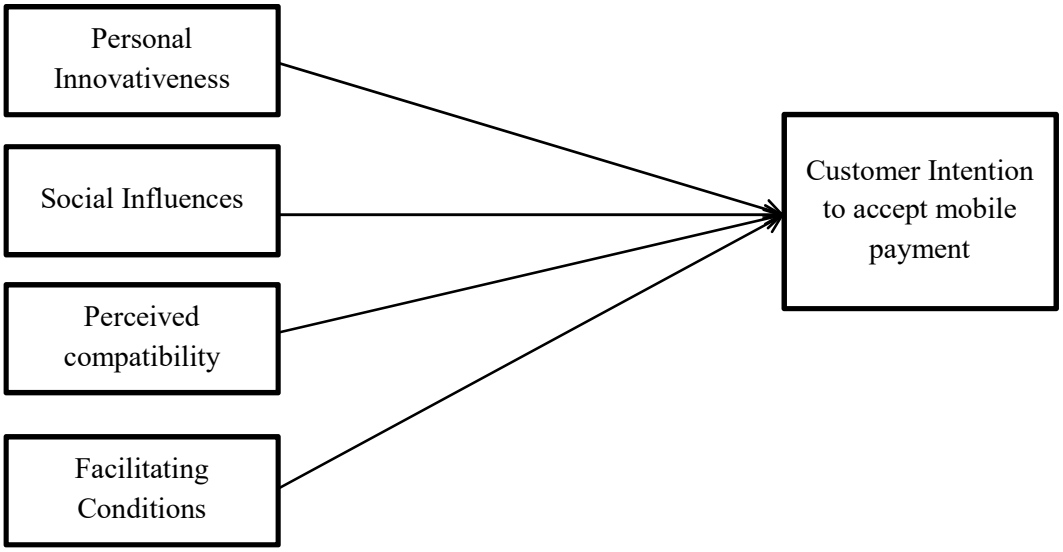

Figure 2: Research Framework

3.2 Research Design

Research design defines as the overall structure and guideline for connecting the conceptual research problems to the research (Creswell, 1994). According to Bordens & Abbott (2002) mentioned that the research design are main for one or both major function which are exploratory data collection and analysis, as well as the hypothesis testing. Exploratory data collection and analysis referring to the research that is main to identify the latest and new phenomena and relationship while hypothesis testing is to check the adequacy and accuracy of proposed explanation. This research is formal study which begins with the creation of research questions and hypothesis as well as mainly to identify the adequacy of hypothesis and answer the research questions. This research are look for the asymmetrical relationships where assume that the changes in independent variables will affect the dependent variables in this study. Quantitative data collection method are adopt for this research. The instrument that used to collect data is a self-administered questionnaire which distributed to the respondents in the forms of survey and the primary data was obtained for the analysis. This data of this research are analyses by using the computerized analysis, by using the SPSS software.

3.3 Research Approach

According to Sekaran, U., & Bougie, R. (2016),, there have two different approaches in business research which are deductive and inductive research approaches. Researcher who using deductive approach in their research will develop a theory and hypothesis, and design the research strategy to test the hypothesis. While for the inductive approach, which are more different from deductive approach whereby researcher have to collect the data at first stage, follow with the generate theory from the analysis of collected data.

The deductive approaches are using in this research as this approach is based on the scientific principles, and also moving from the theory to data. This research approach is the highly structured approach, whereby the researcher are request to develop the question to defined the research questions and quantitative data analysis are apply in this research. The causal relationships between variables have to be explained in this research approach. This research has outlined the literature of the mobile payment related theory to establish the relationship between the variables.

3.4 Data Collection Method

Data collection is one of the essential criteria when conducting research. The inaccuracy of the data collection method may lead to the invalid results in the study. In this research, the quantitative data collection methods adopt to obtain the data from the representative sample of population. Quantitative data are suitable for the formal study research whereby testing hypothesis of theory or estimating the size of phenomenon of interest. According to Sekaran, U., & Bougie, R. (2016), quantitative research is about quantifying relationships between variables and express the relationship into the statistical mathematics method such as correlations, frequencies and so on. The quantitative data can be collected through several methods such as questionnaire, survey and so on. In this research, the questionnaire data collection methods are used as the tools and instruments to collect the information and data from respondents. Paper pencil-questionnaire or internet survey are adopt as it can be reach to a large number of respondents and save times for researcher. According to Joinson, A. (1999) , said that people tend to be more truthful and honesty while proving answer in the questionnaire as their response are anonymous.

3.4.1 Primary Data

Primary Data refer to the first-hand information which means the information are directly obtain from respondents. Primary data are obtained in various ways such as questionnaire, survey, experiments as well as interview. In this study, the primary data is obtaining through the questionnaire that distribute to the participants.

3.4.2 Questionnaire

Questionnaire is a set of questions which are prepared by researcher to their target respondent with the aim to collect their feedback that might help in the research. Each person is requested to provide the feedback and reaction in predetermined order to the same set of question. . Therefore, questionnaire also can be refer as the tools and instrument to get and collect information of a certain issues of research. The number of questions are carefully set up with the objectives whereby the respondent are clearly understand of the question have been asked and will choose the proper ranking or rating that represent their feedback and response.

Questionnaire are commonly used to collect the primary data which commonly relating to people's behaviour and also gain the factual information with the objective to classify people and their circumstances (Phellas, Blocj, Seale, 2011). The advantages of questionnaire is respondent are able to complete the questionnaire within a short period of time.

Closed-ended questions are chosen in this research. The respondent given a list of predetermined responses to choose their answer. Closed-ended questions often in the formant whereby ask respondent to give the suitable rate towards the questions where the rate given is represent their perceptions and thought. Basically the ranking that used in closed ended question are in the interval and likert scale, for example, 1 is

represent strongly disagree, 2 is disagree, 3is neutral, 4 is agree and 5 is strongly agree. This could be ease for examine the frequency of each response.

In this study, questionnaire is distributed to those target respondents with the objectives to get the primary data from respondents about the acceptance of mobile payments. This method also apply when identify the connection between independent variables and dependent variables.

3.5 Sampling Design

The purpose of sampling to designed the sampling method that will generate a sample that addresses research questions. The sample size for the quantitative have to be large enough to establish representativeness. Quantitative research sampling is focus on the breadth of the information generated by sampling units.

3.5.1 Target Population

According to Sekaran, U., & Bougie, R. (2016) defined that the target population is referring to the bunch of individuals who had targeted by researcher to obtain data in order to achieve the research objective of this study. The main objectives of this research are to study the acceptance of customer acceptance towards mobile payments in Malaysia. Therefore, the target population of the research is the customers who are using the smartphone .It is impossible to involve all of the smartphone user in all state in Malaysia due to the time constraint. Therefore, the target population for the survey was the targeted residents in Selangor area. Based on the Hand Phone User Survey which released on 2015 by Malaysian Communication and Multimedia Commision (MCMC), Selangor area has the highest rate of hand phone user.

3.5.2 Sampling Element

Sampling Element referring to the element that study in this research which also known as respondent. In this study, target respondent involving the Malaysian who owns smartphone and have the potential to adopt mobile payment system.

3.5.3 Sampling Techniques

Sampling strategy for this research is probability sampling which means each unit in a population has chances to be selected. Probability sampling strategy are adopt in this study where there is a need to answer the research questions. The Probability sampling require statistical estimation on the criteria of the population of the sample in order to generalize results to the populations. This study using the simple random sampling strategy which is the basic sampling techniques where researcher select a group of sample to study from larger populations.

3.5.4 Sample Size

Sample size refer to the group of people are selected from the population which us drawn so that the researcher can obtain the information and conduct the examiner based on the responses that given by the sample size (Kadam & Bhalerao, 2010). According to Guadagnoli & Velicer (1988), the recommendation of 100 to 200 minimum sample size, the correlation coefficient of population may have function as the suitable estimator. Based on the sample size table that provided by The Research Advisor (2006), there is negative relationship between the sample size and the margin of error, which means that the smaller sample size will have the larger Margins of error. It suggested that the population size which more than 250,000, the sample size will be 384, which have construct a 95% confidence interval with a Margin of Error

of ±5%.In this study, the sample size were targeted 400 as to cover up the invalid response may get through the process.

3.6 Research Instrument

Research instrument refer to the measurement tools that used in this study, such as the questionnaire, observation, interview and others measure method with the objective to obtain data and response from the target population.

3.6.1 Questionnaire Design

The questionnaire in this study consist two part which are Part A and Part B. In the Part A, the demographic information will be asked. The basic information of respondent such as gender, education level, income level and others information will be collected in the questionnaire. Ordinal Scale was applied in part A in the questionnaire.

Part B of the questionnaire consists of the question of the independent variables and dependent variables. The factors of influencing customer acceptance on mobile payment system in this study are Personal Innovative, Social influence, Compatibility, and Facilitating conditions. The scale that implied in this part of questionnaire is likert scale, which consists of five-point scale, ranging from strongly disagree to strongly agree. The reason of adopting likert scale in the questionnaire is due to the easiness for respondent to understand the measurement and also help to avoid the misunderstanding during answered the question.

3.6.2 Pilot Test

Pilot Test was conducted to examine the accuracy and improving the consistency of the questionnaire. Pilot test helps to refine the questionnaire before it used in the actual data collection. The appropriate sample size for the pilot test is 20 to 30 respondents. (Zikmund, 2010). Hence, 25 respondents were selected for the pilot test. The data collected from pilot test were tested by using SPSS software to analyse the reliability of the question. The SPSS output was presented in Appendix B .

3.6.3 Operationalization

The definition and the scale of measurement of each variable are presented in table below.

Concept	Definition of concept	Component Operational	Scale of measurement	References

Personal Innovativeness (PI)	The willingness of an individual in the risk taking propensity	1. I like to explore the latest trend of information technology such as mobile payment. 2. Usually, I am the first person to experiment the latest information technology such as mobile payment among my peers. 3. In general, I am hesitant to experience the new information technologies such as mobile payment.	Likert Scale	Jackson, J. D., Mun, Y. Y., & Park, J. S. (2013). An empirical test of three mediation models for the relationship between personal innovativeness and user acceptance of technology. *Information & Management*, *50*(4), 154-161.

		4. If I hear about new technology available, I have the interest to try it.		

Social Influence	The environment around an individual that trigger the person to use or not to use an innovation.	1.People who close to me think that I should using Mobile payment 2. People that I know are using mobile payment system to made payment. 3. My friends think that I should keep using mobile payment. 4. Advertisement and mass media influence me in having the intention to use mobile payment People that close to me	Likert Scale	Lu, J. (2014). Are personal innovativeness and social influence critical to continue with mobile commerce?. *Internet Research*, *24*(2), 134-159.

		introduced me to use mobile payment in transaction.		

Perceived Compatibility	The consistency of existing value , needs and past experience of past adopters"		Likert Scale	Pham, T. T. T., & Ho, J. C. (2015). The effects of product-related, personal-related factors and attractiveness of alternatives on consumer adoption of NFC-based mobile payments. Technology in Society, 43, 159-172.

Facilitating Condition	The situation where the user are in belief that the technology is exist with the objective of providing necessary assistance when needed	1.I need to improve my ICT skills in order to effectively use mobile payment. 2.I have the skills and abilities to use mobile payment to make payment. 3.Mobile payment is compatible with other technologies I use. 4. If facing difficulties in using mobile payment, there will be people ready to help me.	Likert Scale	Onaolapo, S., & Oyewole, O. (2018). Performance Expectancy, Effort Expectancy, and Facilitating Conditions as Factors Influencing Smart Phones Use for Mobile Learning by Postgraduate Students of the University of Ibadan, Nigeria. *Interdisciplinary Journal of e-Skills and Lifelong Learning*, *14*, 95-115. Oliveira, T., Thomas, M., Baptista, G., & Campos, F. (2016). Mobile payment: Understanding the determinants of customer adoption and intention to recommend the technology.

				Computers in Human Behavior, *61*, 404-414.

Behavioural Intention to use Mobile Payment	The situation where an individual have the possibility in engaging to certain activity and behaviour.	1. I intend to use mobile payment to make payment. 2.I will always use mobile payment in my daily life 3.I will continue to use mobile payment to make the payment in the future 4. I will recommend to people that I know to use mobile payment.	Likert Scale	Sujeet Kumar Sharma, Sachin Kumar Mangla, Sunil Luthra, Zahran Al-Salti. 2018. Mobile wallet inhibitors: Developing a comprehensive theory using an integrated model. Journal of Retailing and Consumer Services 45, 52-63.

Customer Acceptance	Customer acceptance is referring to the attitude and action of accepting the new things and no yet adopt it	1. If given opportunities , I want to use mobile payment to buy things 2 Do Personal Innovativeness, Perceived Compatibility, Social Influence, Facilitating Condition affect your acceptance to use mobile payment.	Likert Scale	Alsamydai, M. J. (2014). Adaptation of the technology acceptance model (TAM) to the use of mobile banking services. *international review of management and business research*, *3*(4), 2039. ALraja, M. N., & Aref, M. (2015). Customer acceptance of e-commerce: Integrating perceived risk with TAM. *International Journal of Applied Business and Economic Research*, *13*(2), 913-921.

Table 2: Operationalization of variables

3.7 Primary Scale of Measurements

3.7.1 Nominal Scale

Nominal Scale is referring to the variable are labeling without the quantitative value. It usually used in categorizing and no rank purpose (Hair et al, 2007) . In this study, nominal scale are used in Part A in the questionnaire with purpose of collect the background information of respondent

3.7.2 Likert Scale

In Part B of questionnaire, rating scale which also known as likert scale are adopted in the questionnaire, which aim for determine the degree of agreement of respondent towards certain statements. Likert scale in this study consist of five response category which are 1= strongly disagree, 2= disagree, 3= neutral, 4= agree, 5= strongly agree.

3.8 Data Processing

The collected data have to be process under the data preparation stage to ensure the accuracy and consistency. The data processing steps are shows below :

Step 1 : Questionnaire Checking

The accuracy and the consistency of the questionnaire were checked through the Pilot test. 25 respondent was selected and tested on the questionnaire. The feedback and the response obtained will help to enhance the validity of the questionnaire.

Step 2: Data Editing

Data editing are needed to ensure the reliability of the questionnaire and primary data. Sentences contain ambiguous words and unclear message were amended and edited in order to improve the accuracy of data collected. Meanwhile, the incomplete and unfavorable response from respondents will be filtered before further process.

Steps 3: Data Coding

Data coding is the stage where numerical code were assigned in each question in questionnaire, and each code represent an important meaning. These numerical coding enable researchers to interpret and analyze the data with the SPSS software more easily.

Steps 4: Data Transcription

Data transcription refer to the stage where the coded data were transfer to the another format for analysis and interpretation. In this research, the coded data will transferred into the SPSS software

Steps 5: Data Cleaning

In this stage, the researchers are need to check the consistency and the accuracy of the data to ensure there is no any mistake and invalid on the data .

3.9 Validity of instruments

Validity is vital in research where validity in data collection would reflect the research finding is representing the situation that research is claiming to measure. According Seligar&Shohamy (1989), "Any research can be affected by different kinds of factors which, while extraneous to the concerns of the research, can invalidate the findings". Thus, monitoring the all possible threats that might affect the research is a primary responsible for researcher.

In this research, the content validity are used as it use more formal and statistic based approach to check the validity. Content validity basically is use identity the accuracy of the measurement to measure the theoretical variables. Face validity also adopt in this research by presenting the questionnaire to five experts at University Tunku Abdul Rahman in the Faculty of Accountancy and Management for the critical observation and examination.

3.10 Data Analysis Method

Data analysis refer to the process of transforming and interpreting the data in order to obtain the useful information which could provide helps in making conclusion and support the decision making. The first step of data analysis was begun with the editing the data collected into the respective code. After that, the data will be organized according to the objectives and research questions. The data that collected by questionnaire format will be tested and analyzed by using a software program which called as Statistical Package for Social Sciences (SPSS) version 17. SPSS software able to compile and analyses the complicated data and showing the related information such as reliability, correlation and so on. The results generated were very dependable and widely used in the academic research.

3.11 Summary

In this chapter, there are population, research design, sampling technique, sample size and questionnaire design was discuss to ensure the accurate collection process of data. The SPSS software will be used in the process of data analysis. The data are collect from sources which is distributes the questionnaire and the data analysis interpretation will discuss in next chapter.

Chapter 4

Analysis and Interpretation of Results

4.0 Introduction

This chapter is about the results which generated from the statistical data analysis by using SPSS statistical software. In this chapter, overview of the data and analysis of the demographic profile of the respondents will be discussed. The criteria that will be explained in this chapter consist of response rate, frequency analysis, reliability analysis and correlation analysis. Last but not least, regression hypothesis used for testing the relationship between independent variable and dependent variable and follow with summary of this chapter.

4.1 Sample Profile

Total of 400 set of questionnaire had been distributing to target respondent who living in the Selangor area. Table 4.1 shows the sample profile of the questionnaire survey. 400 questionnaires were distributed, but only have 318 questionnaires are received completed. The data collected were then recorded and analyzed by using the SPSS statistical software.

Items	Total Questionnaire
Number of Questionnaires Distributed	400
Number of Questionnaires Collected Back (Valid)	318
Response Rate	79.5%
Invalid Respondent	57

Invalid Response Rate	14.25%
Unreturned	27
Unreturned Rate	6.75%
Number of Questionnaires Used for Statistical Analysis	318

Table 3: Sample Profile

Table 3 shows that 400 questionnaires had been distributed but the questionnaire that successfully collected and valid were only 318 sets of questionnaire. The valid response was only 318 sets which contribute 79.5%. The invalid questionnaire has 57 sets which contribute 14.25% and the unreturned questionnaire is 27 sets contributed 6.75%.

4.2 Descriptive Analysis

Descriptive analysis is about to provide more detailed information about the characteristics of the sample which use in this research. Collected data were presented in table formation in order to increase the understanding of the sample in this research.

4.2.1 Do you own Smartphone?

Own Smartphone	Frequency	Percentage (%)
Yes	318	100
Total	318	100

Table 4: Frequency of Do You own a Smartphone ?

Table 4 shows that 318 respondents are own a smartphone. The research was conduct by using judgmental sampling technique, thus the respondents must own a smartphone in order to meet the research objective and their response are reliable.

4.2.2 Gender

Gender	Frequency	Percentage (%)
Male	113	35.5
Female	205	64.5
Total	318	100

Table of 5: Frequency of Gender

Table 5 show the number of male and female genders that participated in this study. There have total 113 or 35.5 % male respondents and 205 female respondents which is 64.5% The questionnaire was distributed randomly and results show that the female respondents are more than male respondents. This situation happened due to female are more willing and patient to participate in the research and answer the question.

4.2.3 Age

Age Group	Frequency	Percentage (%)
18-24 years old	26	8.2
25-34 years old	143	45.0
35-44 years old	116	36.5
45-54 years old	27	8.5
55-64 years old	6	1.9
65 and above	Nil	Nil
Total	318	100

Table 6: Frequency of Age range

Table 6 shows the average age of respondent from the 6 categories which are 18-27 years old, 25-34 years old, 35-54 years old , 54-54 years old, and 65 and above .

Based on the frequency analysis, the most respondents that participate in this research are respondents from 25-34 years old and 35-44 years old categories, which had contributed 45.0% and 36.5% respectively. Followed by the 45-54 years old and 18-24 years old categories which contributed 8.5% and 8.2 % respectively. The last but not least is the respondents from 55-64 years old categories which contributed 1.9% in this research. There is no 65 and above respondents participates in this research due to the less likelihood to participate in the research.

4.2.4 Ethnic Group

Races	**Frequency**	**Percentage (%)**
Malay	51	16.0
Chinese	223	70.1
Indian	44	13.8
Total	318	100

Table 7: Frequency of Ethnic Group

Table 7 showing the frequency of respondent's race who has participate in this study. From the table above, it found that the Malay has 51 respondents (16.0%). Besides, 223 of respondents (70.1%) are Chinese then followed by Indian which consists of 44 respondents (13.8%).

4.2.5 Living Area

Living Area	Frequency	Percentage (%)
Town	112	35.2
City	206	64.8
Total	250	100

Table8: Frequency of Living Area

Table 8 shows living area of respondents who participate in this study. From the table above, it found that the respondents are mostly from City area which have frequency

total 206 of respondents (64.8%), and another 112 respondents (35.2%) are living in town area.

4.1.6 Monthly Income

Categories	*Frequency*	*Percentage (%)*
Below RM2,000	Nil	Nil
RM2,001-RM3,000	69	21.7
RM3,001-RM4,000	122	38.4
RM4,001- RM5,000	42	13.2
RM5,001 and above	85	26.7
Total	318	100

Table 9: Frequency of Monthly Income

Table 9 shows that the frequency of monthly income of respondents who participate in this study. Most of the respondents are comes from the categories of RM3,001-RM4,000 monthly income, which have 122 respondents (38.4%). Following by the respondents who have RM5,001 and above monthly income, which have 85 respondents (26.7%). Next is respondents who fall in the RM2,001-RM3,000 monthly income categories, which have 69 respondents (21.7%). Respondents comes from RM4,001 –RM5,000 have 42 respondents (13.2%).

4.2.7 Education Level

Categories	Frequency	Percentage (%)
STPM	27	8.5
Degree	262	82.4
Master	29	9.1
Total	318	100

Table 10: Frequency of Education Level

Table 10 shows the frequency of education level of participants in this study. Most of the respondents participate in this study were Degree holder which have 262 respondents (82.4%). Following with the respondents who is Master holder contribute 29 respondents (9.1%) and the next is respondents who have STPM education level, which have 27 respondents (8.5%)

4.3 Central Tendencies Measurement of Construct

4.3.1 Personal Innovativeness (PI)

No	Questions	Mean	Mode	Standard Deviation
PI1	I like to explore the latest trend of information technology such as mobile payment.	3.98	4	1.185
PI2	Usually, I am the first person to experiment the latest information technology such as mobile payment among my peers.	4.03	4	1.090
PI3	In general, I am hesitant to experience the new information technologies such as mobile payment.	4.13	4	0.982
PI4	If I hear about new technology available, I have the interest to try it.	4.10	4	0.979

Table 11: Central tendency for Personal Innovativeness

The Personal Innovativeness central tendency summary is shown in table 11. The mean score for the statement all fall in the range from 3.98 to 4.13. PI3 recorded the highest mean score, while PI1 has the lowest mean score. Besides that, in this research, most of the respondents were "Agreed" to the question in Personal Innovativeness variables. This can be proved with the mode score in Personal

Innovativeness (PI) is 4. The highest standard deviation value recorded by PI1 meanwhile PI4 recorded the lowest standard deviation value.

4.3.2 Social Influence (SI)

No	Questions	Mean	Mode	Standard Deviation
SI1	People who close to me think that I should using Mobile payment	4.12	4	1.063
SI2	People that I know are using mobile payment system to made payment. .	4.22	5	1.060
SI3	My friends think that I should keep using mobile payment.	4.21	5	1.057
SI4	People that close to me introduced me to use mobile payment in transaction.	4.18	5	1.041

Table 12: Central tendency for Social Influence

The Personal Innovativeness central tendency summary is shown in table 12. The mean score for the statement all fall in the range from 4.12 to 4.21. SI3 recorded the highest mean score, while SI1 has the lowest mean score. Besides that, in this research, most of the respondents were “Strongly Agreed” to the question in Social Influence variables. This can be proved with the mode score in Social Influence (SI) mostly in 5. The highest standard deviation value recorded by SI1 meanwhile SI4 recorded the lowest standard deviation value.

4.3.3 Perceived Compatibility

No	Questions	Mean	Mode	Standard Deviation
PC1	Mobile payment is compatible in my daily life	4.07	4	0.949
PC2	Mobile payment are fit well in the way I like to buy products	4.13	4	1.047
PC3	Mobile payment are compatible with my current environment	4.19	4	0.975
PC4	Mobile payment enables me to make payment easily	4.26	5	0.981

Table 13: Central Tendency for Perceived Compatibility

The Perceived Compatibility central tendency summary is shown in table 13. The mean score for the statement all fall in the range from 4.07 to 4.26. PC4 recorded the highest mean score, while PC1 has the lowest mean score. Besides that, in this research, most of the respondents were "Agreed" to the question in Perceived Compatibility variables. This can be proved with the mode score in Perceived Compatibility (PC) is 4. The highest standard deviation value recorded by PC2 meanwhile PC1 recorded the lowest standard deviation value.

4.3.4 Facilitating Condition

No	Questions	Mean	Mode	Standard Deviation
FC1	I need to improve my ICT skills in order to effectively use mobile payment.	4.29	5	0.994

FC2	I have the skills and abilities to use mobile payment to make payment.	4.25	5	0.960
FC3	Mobile payment is compatible with other technologies I use.	4.25	5	0.964
FC4	If facing difficulties in using mobile payment , there will be people ready to help me	4.23	5	1.025

Table 14: Central tendency of Facilitating Conditions

The Facilitating Condition central tendency summary is shown in table 14. The mean score for the statement all fall in the range from 4.23 to 4.29. FC1 recorded the highest mean score, while FC4 has the lowest mean score. Besides that, in this research, most of the respondents were "Strongly Agreed" to the question in Perceived Compatibility variables. This can be proved with the mode score mostly in Facilitating Condition is 5. The highest standard deviation value recorded by FC4 meanwhile FC2 recorded the lowest standard deviation value.

4.3.5 Behavioral Intention

No	Questions	Mean	Mode	Standard Deviation
BI1	I intend to use mobile payment to make payment.	4.18	4	0.985
BI2	I will always use mobile payment in my daily life	4.27	4	0.868
BI3	I will continue to use mobile payment to make the payment in the future	4.15	4	1.014
BI4	I will recommend to people that I know to use the mobile payment	4.23	5	1.006

Table 15: Central Tendency for Behavioral Intention

The Behavioral Intention central tendency summary is shown in table 15. The mean score for the statement all fall in the range from 4.15 to 4.27. BI2 recorded the highest mean score, while BI3 has the lowest mean score. Besides that, in this research, most of the respondents were "Agreed" to the question in Behavioral Intention variables. This can be proved with the mode score mostly in Behavioral Intention is 4. The highest standard deviation value recorded by BI3 meanwhile BI2 recorded the lowest standard deviation value.

4.4 Reliability Analysis

Variables	Number of Items	Cronbach Alpha	Remarks
Dependent variable			
Behavioral Intention	4	0.801	Very Strong
Independent variable			
1) Personal Innovativeness	3	0.825	Very Strong
2) Social Influence	4	0.879	Very Strong
3) Perceived Compatibility	4	0.814	Very Strong
4) Facilitating Condition	4	0.810	Very Strong

Table 16: Reliability Analysis for each Variable

According to Sekaran (2003), reliability test is used for measure the stability, consistency, dependability and accuracy of the variable. The reliability test provides the information about the relationship between individual items and helps to reduce the error in each variable to ensure the consistent result can be obtained.

The Cronbach alpha value and items of each variable including the independent and dependent variables are shown in the table. According to Malhotra(2010) , the value of Cronbach Alpha which are below 0.6 are perceived as poor , while the alpha value

range from 0.6 to 0.8 are perceived as moderate strong , if the value more than 0.8 is considered as very strong.

Based on the table 15, the overall of Cronbach Alpha values is accepted with the ranging of variables from 0.801 to 0.879 through the analysis. The results show the strong and high reliability among the variables.

The highest Cronbach value of variables is Social Influence which had recorded 0.879, the second highest value which are 0.825,contributed from the Personal Innovativeness. Next is the Perceived Compatibility which recorded 0.814 and Facilitating Condition recorded 0.810. In conclusion, all of the variables are indicates strong and good reliability scoring results and attempting to reach a moderate degree of reliability.

4.5 Inferential Analysis

4.5.1 Pearson Correlation Coefficient

Pearson Correlation Coefficient used for determines the relationship among the variables. The rules of thumb of correlation coefficient were shown in table below.

Coefficient Range	Remarks
0.91~ 1.00/-1.00~ -0.91	Very Strong
0.71~ 0.91/-0.90~ -0.71	High
0.41~ 0.70/-0.70~ -0.41	Moderate
0.21 ~ 0.40/-0.40~0.21	Small but define relationshop
0.01~0.20/-0.20 ~ -0.01	Slight, almost negligible

Table 17: Rules of thumb of correlation coefficient . Sekaran (2003)

The results of Pearson Coefficient of this study were shown as below.

Variable (Sig. (2tailed)	Personal Innovativeness	Social Influence	Perceived Compatibility	Facilitating Condition	Behavioral Intention
Personal Innovativeness	1	.762**	.924**	.765**	.799**
		.000	.000	.000	.000
	318	318	318	318	318

Social Influence		1	.797**	.745**	.753**
			.000	.000	.000
		318	318	318	318
Perceived Compatibility			1	.772**	.813**
				.000	.000
			318	318	318
Facilitating Condition				1	.813**
					.000
				318	318
Behavioral Intention					1
					318

Table 18: Pearson's Correlation analysis

Table 18 shows the results of the Pearson's Correlation for each of the variables. All of the correlation results were fall in the range from 0.753 to 0.813. This shows the high and positive relationship between the independent variables (Personal Innovativeness, Social Influence, Perceived Compatibility, and Facilitating Condition) and the dependent variable (Behavioral Intention).

Correlation between personal innovativeness and behavioral intention shown there is high relationship among this two variables which has recorded 0.799. Meanwhile the correlation between social influence variables and behavioral Intention variables has recorded 0.753 which indicate high relationship between the variables.

The highest correlation values recorded between the facilitating condition variables and behavioral intention variables which has recorded 0.813. While the correlation between perceived compatibility and behavioral intention was recorded 0.813.

As conclusion, based on the result from Pearson's correlation results showing that the high and positive relationship between the independent and dependent variables,

which also means that any changes in independent variable swill give impact on dependent variables.

4.5.2 Multiple Regression Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.870[a]	.757	.754	.408

a. Predictors: (Constant), mFC, mSI, mPI, mPC

Table 19: Model Summary of Multiple Regression Model

Table 19 shows that the correlation coefficient value (R) is 0.870, which indicate it have high correlation between independent and dependent variables. The positive value of correlation coefficient shows that there is positive relationship between dependent and independent variables.

The R square which known as coefficient of determination value recorded as 0.757. This indicates that there is 75.7% variation of behavioral intention of customer can be explained by the 4 independent variables. In other words, it means that there is 24.3% were unexplained in this study.

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	162.009	4	40.502	243.421	.000[a]
	Residual	52.080	313	.166		
	Total	214.089	317			

a. Predictors: (Constant), mFC, mSI, mPI, mPC

b. Dependent Variable: mBI

Table 20: ANOVA of Multiple Regression Model

Based on the table 20 shows the F-value recoded as 243.421 with p-value which recorded 0.000 which is less than the significant level 0.001. This indicates that the independent variables (personal innovativeness, social influence, perceived compatibility, facilitating condition) were having significant relationship to the dependent variables (behavioral intention). This show that the model is reliable to use in testing the relationship between independent and dependent variables.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig	VIF
	B	Std.Error	Beta			
Constant	.251	.129		1.943	0.053	
PI	.163	.074	.164	2.196	0.029	7.157
SI	.129	.047	.136	2.773	0.006	3.105
PC	.248	.079	.248	3.128	0.002	8.105
FC	.401	.048	.395	8.336	0.000	2.891

Table 21: Coefficients of Multiple Regression Model

Multiple regression analysis was used to determine the relationship between the independent variables and dependent variables. The hypothesis of the study was also tested by using the multiple regression analysis. Through multiple regression analysis , variables with significant value (p-value) less than 0.05 , and can be conclude that the hypothesis is significant in the study.

The first hypothesis (H1) stated that Personal Innovativeness has significant relationship with the behavioral intention to accept mobile payment. Based on the table 21, the significant value (p-value) of Personal Innovativeness (PI) recorded as 0.029 which is less than 0.05. This indicates that there is significant relationship between Personal Innovativess and behavioral intention to accept mobile payments. Thus, we can conclude that the hypothesis H1 was supported in this study.

The second hypothesis (H2) stated that Social Influence has significant relationship with behavioral intention to accept mobile payment Based on the table 21, the significant value (p-value) of Social Influence recorded as 0.006 which is less than 0.05. This indicates that there is significant relationship between Social Influence and behavioral intention to accept mobile payments. Thus, we can conclude that the hypothesis H2 was supported in this study.

The third hypothesis (H3) stated that Perceived Compatibility has significant relationship with behavioral intention to accept mobile payment Based on the table 21, the significant value (p-value) of Perceived Compatibility recorded as 0.002 which is less than 0.05. This indicates that there is significant relationship between Perceived Compatibility and behavioral intention to accept mobile payments. Thus, we can conclude that the hypothesis H3 was supported in this study.

The forth hypothesis (H4) stated that Facilitating Condition has significant relationship with behavioral intention to accept mobile payment Based on the table 21, the significant value (p-value) of Facilitating Condition recorded as 0.000 which is less than 0.05. This indicates that there is significant relationship between Facilitating Condition and behavioral intention to accept mobile payments. Thus, we can conclude that the hypothesis H4 was supported in this study.

According to table 21, it show that Facilitating Condition recorded the highest value of beta coefficient which is 0.401, which means that 1 standard deviation change in Facilitating Condition will bring the impact of 0.401 standard change of the dependent variables while the other independent variable are remain constant. Based on the regression analysis result, the regression equation was show as below:

$$\boldsymbol{BI = 0.251 + 0.163(PI) + 0.129(SI) + 0.248(PC) + 0.401(FC)}$$

4.6 Summary

This chapter discuss about the analysis of the data collected from target respondent. The reliability test indicates the validity of the variables tested in this study. The analysis of correlation were tested in order to indicate the relationships between IV and DV. The significant correlations between independent (Personal Innovativeness, Social influence, Perceived Compatibility, Facilitating Conditions) and dependent variable (Behavioral Intention) also been tested by regression test.

Chapter 5

Conclusion and Recommendation

5.1 INTRODUCTION

In the last chapter, the summarized of previous chapter and summary statistical analysis will be carry on. The chapter will discuss the findings and results of hypothesis. Besides, recommendation for further research, limitations of study and implication of study are discussing based on the findings

5.2 Summary of Statistical Analysis

Total 318 set of questionnaire were successfully collected for this study. The summary of the findings as follows:

5.2.1 Description Analysis

Profile	Category	Frequency	Percentage (%)
Gender	Female	205	64.5
	Male	113	35.5

Age	18-24 years old	26	8.2
	25-34 years old	143	45.0
	35-44 years old	116	36.5
	45-54 years old	27	8.5
	55-64 years old	6	1.9
	65 and above	Nil	Nil
Ethnic Group	Malay	51	16.0
	Chinese	223	70.1
	Indian	44	13.8
Living Area	Town	112	35.2
	City	206	64.8
Monthly Income	RM2,001-RM3,000	69	21.7
	RM3,001-RM4,000	122	38.4
	RM4,001-RM5,000	42	13.2
	RM5,001 and above	85	26.7
Education Level	STPM	27	8.5
	Degree	262	82.4
	Master	29	9.1

Table 21: Summary of Demographic Profile

This research was based on 318 respondents who using smartphone and have the potential to use mobile payment as their transaction channel. . There have total 113 or 35.5 % male respondents and 205 female respondents which is 64.5% .The questionnaire was distributed randomly and results show that the female respondents are more than male respondents. This situation happened due to female are more willing and patient to participate in the research and answer the question. Most respondents that participate in this research are respondents from 25-34 years old and

35-44 years old categories, which had contributed 45.0% and 36.5% respectively. Total have 223 of respondents (70.1%) are Chinese participate in this study, followed by Malay has 51 respondents (16.0%) while Indian which consists of 44 respondents (13.8%). respondents are mostly from City area which have frequency total 206 of respondents (64.8%), and another 112 respondents (35.2%) are living in town area. Most of the respondents are comes from the categories of RM3,001-RM4,000 monthly income, which have 122 respondents (38.4%). 262 respondent is Degree holder were participate in this study.

5.2.2 Reliability and Validity Analysis

The overall of Cronbach Alpha values in this study were accepted with the ranging of variables from 0.801 to 0.879 through the analysis. The results show the strong and high reliability among the variables in this study.

5.2.4 Summary of Inferential Analysis

Hypothesis	**Multiple Linear Regression**	
	Result (sig)	**Remarks**
H1: There is relationship between Personal innovativeness and customer's intention to accept Mobile Payments.	0.029	Supported
H2 : There is relationship between Social influences and customer's intention to accept Mobile Payments	0.006	Supported
H3: There is relationship between Perceived	0.002	Supported

Compatibility has the positive effect on the customer's intention to accept Mobile Payments		
H4: There is relationship between Perceived Compatibility has the positive effect on the customer's intention to accept Mobile Payments	0.000	Supported

Table22: Summary of Inferential Analysis

Based on the table 22 shows the Multiple Linear Regression result which shows that all the hypothesis in this study were supported with the significant value less than 0.05. All of the independent variables were influence dependent variables in this study.

5.3 Discussion of Major Findings

Based on the result obtain from reliability and multiple regression analysis indicates that all variables in this study are reliable as the reliability achieve is more than the minimum requirement 0.70. Hence, the variables in this study were reliable.

5.3.1 There is relationship between Personal innovativeness and customer's intention to accept Mobile Payments.

Personal Innovativeness in this study referring to the willingness of an individual in the risk taking propensity. Based on the analysis in this study, personal innovativeness has the positive influence to the customer's intention to accept Mobile Payment. The finding in this study show the personal

innovativeness has p-value 0.029 which is less than 0.05 and the coefficient value of 0.163 indicates personal innovativeness has significant relationship towards customer's intention to accept Mobile Payments. This study proves that an individual with the high personal innovativeness characteristics are more willing to take the opportunity to try the new things. This align with the finding of Lu,J(2014) and Ayub et.al (2017).

5.3.2 There is relationship between Social influences and customer's intention to accept Mobile Payments

In this study, social influence referring to changes of the attitude and behavior of an individual, whether intentionally or unintentionally influence by others which have the close relationship with the individual. Based on the results finding, it shows that social influence has p-value 0.006 which is less than 0.05 and the coefficient value recorded as 0.129 define that social influences have direct influence towards customer's intention to accept mobile payments. This study proves that the pressure from social could influence customer to accept new technology. The findings of this study align with the previous finding of Thakur, 2013; Slade et al, 2015; Koenig, 2015

5.3.3 There is relationship between Perceived Compatibility has the positive effect on the customer's intention to accept Mobile Payments

Perceived compatibility in this study is referring to degree where innovation is met thevalues and experience of potential customers. Based on the results finding, it shows that perceived compatibility has p-value 0.002 which is less than 0.05 and the coefficient value recorded as 0.248 define that perceived compatibility have direct influence towards customer's intention to accept

mobile payments. This finding are align with the previous study (Pham, T. T. T., & Ho, J. C., 2014; Hanafizadeh, P., Behboudi, M., Koshksaray, A. A., & Tabar, M. J. S., 2014)

5.3.4 There is relationship between Facilitating Conditions have the positive effect on customer's intention to accept Mobile Payments

Facilitating Condition in this study was adopted the definition of Venkatesh et al (2003) which referring to the situation where the user are in belief that the technology is exist with the objective of providing necessary assistance when needed. According to the findings ,it show that facilitating condition has p-value 0.002 which is less than 0.00 and the coefficient value recorded as 0.401 define that facilitating have direct influence towards customer's intention to accept mobile payments.

5.4 Implication of the study

As technologies evolved, people were eager to seek the easiest and most convenience way to help them in their daily life. One of the biggest changes is the changes in the payment method, which referring to the mobile payment. Mobile payments referring to the transaction of payment are carrying out by using the smartphone. Many businesses are carrying out the special promotion for mobile payment user, with the aim to trigger the acceptance rate of mobile payment user. Eventually, to ensure the acceptance of mobile payment, the mobile payment provider and businesses have to understand the factors influencing customer to accept the new payment method. Therefore, this research is a stepping stone for businesses and mobile payment provider to have an overwhelming understanding on the factors affect customer acceptance.

This study focused on the factors influencing the acceptance of customer on mobile payments in Malaysia. This study tried to study the factors from external variables (Perceived Capability, Social Influence, and Facilitating Conditions) and internal variables (Personal Innovativeness).

Findings from this research show that facilitating conditions have the highest impact on influencing customer acceptance on new technologies. Facilitating conditions referring to the circumstances where there is resources and support available and ready for help. A good facilitating condition could help new user to decrease the uncertainty and increase the understanding and likelihood on the new technologies. The more efficiency and effectively of the technologies provided, the more willingness of customer to accept and adopt the technologies. Thus, businesses and mobile payment provider are encourage to focus on providing the enough resources and support to increase the intention of customer to accept mobile payment.

5.5 Limitation of Study

Several limitations were found in this study. The first limitation is the sample size of this study might dominate into one state which is Selangor due to the time constraint and budget. Mobile payment user in other state such as Kuala Lumpur, Johor, Penang and others state are not included in this study. Thus, the findings of the result were only able to represent mobile user in Selangor since the sample are being centralized. When the research is use into a large sample size and spread around Malaysia, the accuracy of result may affect.

On the other hand, this study was only focused on the four factors which is personal innovativeness, social influence; perceive compatibility, and facilitating conditions. Others factors such as perceived benefit, perceived barriers and others factors are not involving in this study.

Moreover, the understanding towards questionnaire and respondent's manner to tick the answer are influence accuracy and reliability of data. Some of the respondents may feel troublesome to read the question and answer it without sincere. Those attitudes will influence the accuracy of information.

5.6 Suggestions for Further Study

According to the limitation mentioned in the previous section, there are some suggestions provided for further research in same topic or area. The first suggestion for future researchers is to spread more survey forms around the country. Another suggestion is, conduct a multi- state or country comparison to have better understanding on the intention to accept mobile payment. For instance, involving east and west Malaysian in the study, so that tat the findings will be more representative and accurate.

The second suggestions for future study are to extend the research model in this study to have better understanding on the factors that influencing customer acceptance. This research is only covering 4 factors that influence customer satisfaction. Therefore, other factors that may play role in determine customer acceptance should include in further research such as cost, promotion activities, and security. Additionally, it is encourage that future studies add in the study of intention of continual usage.

Last but not least, it is suggested to provide the questionnaire in multi-languages such as English, Malay and Chinese to increase the level of understanding and avoid any misunderstanding and get invalid response from questionnaire, this affect the accuracy of the questionnaire.

5.7 Conclusion

As conclusion, the independent variables in this study which personal innovativeness, social influences, perceived compatibility, and facilitating conditions have significant relationship to intention of customer to accept mobile payments. The findings of this study are helpful for mobile payment provider and business in their organizational and marketing strategies.

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Appendix A: Questionnaire

UNIVERSITI TUNKU ABDUL RAHMAN (UTAR)
FACULTY OF ACCOUNTANCY AND MANAGEMENT (FAM)

MASTER OF BUSINESS ADMINISTRATION

A Study of Factors influencing Customers' Acceptance of Mobile Payment in Malaysia

Dear respondent,

I am a final year postgraduate student from UNIVERSITI TUNKU ABDUL RAHMAN (UTAR). Currently, I am undertaking a research for my final year project. This questionnaire is a part of my final year project which aim to study on "**A Study of Factors influencing Customers 'Acceptance of Mobile Payment in Malaysia**". Mobile payment referring the payment service is done through mobile device. Customer can use their mobile devices to make transaction for a wide range of services and products.

This survey is used in partial fulfilment of MASTER OF BUSINESS ADMINISTRATION, University Tunku Abdul Rahman. This survey is completely anonymous and confidential. Your responses are useful and critical part of my research. Please answer all the questions as candidly and completely as possible. Thank you for your time.

Please complete this survey by answering all the questions honestly with your best knowledge. All the information collected is confidential and only for the purpose of research.

There are 2 sections in this survey, which are Demographic (section A) and Variables affecting customers' acceptance (Section B). Please answer ALL the questions for both the sections. This survey would take you approximately 5-10 minutes. Appreciate for your participation.

Section A Demographic

The following personal information is necessary for validation of the questionnaire. All response will be kept confidential. Your cooperation in providing this information will be greatly appreciated.

1) **Do you own a Smartphone?**
   - □ Yes
   - □ No
2) **Gender**
   - □ Male
   - □ Female
3) **Age Range**
   - □ Under18
   - □ 18-24
   - □ 25-34
   - □ 35-44
   - □ 45-54
   - □ 55-64
   - □ 65 and above
4) **Ethnic Group**
   - □ Malay
   - □ Chinese
   - □ India
   - □ Others
5) **Living Area**
   - □ Rural
   - □ Town
   - □ City
6) **Monthly Income**
   - □ Below RM2,000
   - □ RM2,001-RM3,000
   - □ RM3,001-RM4,000
   - □ RM4,001-RM5,000
   - □ RM5,001 and above
7) **Education Level**
   - □ UPSR
   - □ PMR
   - □ SPM
   - □ STPM
   - □ Degree
   - □ Master

- PHD
- Others : _____

Section B Variables affecting customer's acceptance

These sections are related to the certain aspects of the factors that affecting customer acceptance. Please circle the appropriate response to indicate your own personal stand and feeling by circling based on the following scale.

Independent Variables

i) Personal Innovativeness (PI)

		strongly disagree	Disagree	Neutral	Agree	strongly agree
1.	I like to explore the latest trend of information technology such as mobile payment.	1	2	3	4	5
2.	Usually, I am the first person to experiment the latest information technology such as mobile payment among my peers.	1	2	3	4	5
3.	In general, I am hesitant to experience the new information technologies such as mobile payment.	1	2	3	4	5
4.	If I hear about new technology available, I have the interest to try it.	1	2	3	4	5

ii) Social Influence (SI)

		strongly disagree	Disagree	Neutral	Agree	strongly agree
1.	People who close to me think that I should using Mobile payment	1	2	3	4	5
2.	People that I know are using mobile payment system to made payment. .	1	2	3	4	5

3	My friends think that I should keep using mobile payment.	1	2	3	4	5
4.	People that close to me introduced me to use mobile payment in transaction.	1	2	3	4	5

iii) Perceived Compatibility(PC)

		strongly disagree	**Disagree**	**Neutral**	**Agree**	**strongly agree**
1.	Mobile payment is compatible in my daily life	1	2	3	4	5
2.	Mobile payment are fit well in the way I like to buy products	1	2	3	4	5
3.	Mobile payment are compatible with my current environment	1	2	3	4	5
4.	Mobile payment enables me to make payment easily	1	2	3	4	5

IV) Facilitating Condition (FC)

		strongly disagree	**Disagree**	**Neutral**	**Agree**	**strongly agree**
1.	I need to improve my ICT skills in order to effectively use mobile payment.	1	2	3	4	5
2.	I have the skills and abilities to use mobile payment to make payment.	1	2	3	4	5
3.	Mobile payment is compatible with other technologies I use.	1	2	3	4	5
4.	If facing difficulties in using mobile payment , there will be people ready to	1	2	3	4	5

	help me					

V) Behavioral Intention (B1)

		strongly disagree	Disagree	Neutral	Agree	strongly agree
1.	I intend to use mobile payment to make payment.	1	2	3	4	5
2	I will always use mobile payment in my daily life	1	2	3	4	5
3.	I will continue to use mobile payment to make the payment in the future	1	2	3	4	5
4.	I will recommend to people that I know to use the mobile payment.	1	2	3	4	5

Appendix B: Pilot Test Result

Pearson Correlations

Personal Innovativeness (PI)

Correlations

		PI1	PI2	PI3	PI4
PI1	Pearson Correlation	1	.595**	.425**	.379*
	Sig. (2-tailed)		.000	.006	.016
	N	40	40	40	40
PI2	Pearson Correlation	.595**	1	.502**	.337*
	Sig. (2-tailed)	.000		.001	.033
	N	40	40	40	40
PI3	Pearson Correlation	.425**	.502**	1	.510**
	Sig. (2-tailed)	.006	.001		.001
	N	40	40	40	40
PI4	Pearson Correlation	.379*	.337*	.510**	1
	Sig. (2-tailed)	.016	.033	.001	
	N	40	40	40	40

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Social Influence (SI)

Correlations

		SI1	SI2	SI3	SI4
SI1	Pearson Correlation	1	.649**	.388*	.548**
	Sig. (2-tailed)		.000	.013	.000
	N	40	40	40	40
SI2	Pearson Correlation	.649**	1	.477**	.581**
	Sig. (2-tailed)	.000		.002	.000
	N	40	40	40	40
SI3	Pearson Correlation	.388*	.477**	1	.562**

	Sig. (2-tailed)	.013	.002		.000
	N	40	40	40	40
SI4	Pearson Correlation	.548**	.581**	.562**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	40	40	40	40

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Perceived Compatibility (PC)

Correlations

		PC1	PC2	PC3	PC4
PC1	Pearson Correlation	1	.595**	.425**	.153
	Sig. (2-tailed)		.000	.006	.346
	N	40	40	40	40
PC2	Pearson Correlation	.595**	1	.502**	.027
	Sig. (2-tailed)	.000		.001	.869
	N	40	40	40	40
PC3	Pearson Correlation	.425**	.502**	1	.336*
	Sig. (2-tailed)	.006	.001		.034
	N	40	40	40	40
PC4	Pearson Correlation	.153	.027	.336*	1
	Sig. (2-tailed)	.346	.869	.034	
	N	40	40	40	40

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Facilitating Condition (FC)

Correlations

		FC1	FC2	FC3	FC4
FC1	Pearson Correlation	1	.468**	.096	.171
	Sig. (2-tailed)		.002	.555	.293

	N	40	40	40	40
FC2	Pearson Correlation	.468**	1	.576**	.492**
	Sig. (2-tailed)	.002		.000	.001
	N	40	40	40	40
FC3	Pearson Correlation	.096	.576**	1	.394*
	Sig. (2-tailed)	.555	.000		.012
	N	40	40	40	40
FC4	Pearson Correlation	.171	.492**	.394*	1
	Sig. (2-tailed)	.293	.001	.012	
	N	40	40	40	40

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Behavioral Intention (BI)

Correlations

		BI1	BI2	BI3	BI4
BI1	Pearson Correlation	1	.735**	.737**	.660**
	Sig. (2-tailed)		.000	.000	.000
	N	40	40	40	40
BI2	Pearson Correlation	.735**	1	.679**	.488**
	Sig. (2-tailed)	.000		.000	.001
	N	40	40	40	40
BI3	Pearson Correlation	.737**	.679**	1	.543**
	Sig. (2-tailed)	.000	.000		.000
	N	40	40	40	40
BI4	Pearson Correlation	.660**	.488**	.543**	1
	Sig. (2-tailed)	.000	.001	.000	
	N	40	40	40	40

**. Correlation is significant at the 0.01 level (2-tailed).

Reliability Test

Case Processing Summary

		N	%
Cases	Valid	40	100.0
	Excluded[a]	0	.0
	Total	40	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.943	.942	22

Item Statistics

	Mean	Std. Deviation	N
PI1	3.80	1.244	40
PI2	4.00	1.177	40
PI3	4.05	1.085	40
PI4	4.15	1.099	40
SI1	3.78	1.165	40
SI2	3.90	1.257	40
SI3	3.85	1.001	40
SI4	4.05	1.061	40
PC1	3.80	1.244	40
PC2	4.00	1.177	40
PC3	4.05	1.085	40
PC4	4.25	.809	40

FC1	4.15	.949	40
FC2	4.25	1.127	40
FC3	4.08	.997	40
FC4	4.00	1.109	40
BI1	4.10	1.215	40
BI2	4.03	.974	40
BI3	4.13	1.159	40
BI4	4.13	.911	40
AU1	4.13	1.159	40
AU2	4.13	.911	40

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
88.78	264.640	16.268	22

Appendix C: SPSS Output

Frequency Table: Demographic Profile

Statistics

		D1	D2	D3	D4	D5	D6	D7
N	Valid	318	318	318	318	318	318	318
	Missing	0	0	0	0	0	0	0

Do you own smartphones?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	318	100.0	100.0	100.0

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	113	35.5	35.5	35.5
	Female	205	64.5	64.5	100.0
	Total	318	100.0	100.0	

Age Group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-24	28	8.2	8.2	8.2
	25-34	143	45.0	45.0	53.1
	35-44	116	36.5	36.5	89.6
	45-54	27	8.5	8.5	98.1

	55-64	6	1.9	1.9	100.0
	Total	318	100.0	100.0	

Ethnic Group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	51	16.0	16.0	16.0
	Chinese	223	70.1	70.1	86.2
	India	44	13.8	13.8	100.0
	Total	318	100.0	100.0	

Living Area

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Town	112	35.2	35.2	35.2
	City	206	64.8	64.8	100.0
	Total	318	100.0	100.0	

Monthly Income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	RM2001-RM3000	69	21.7	21.7	21.7
	RM3001-RM4000	122	38.4	38.4	60.1
	RM4001-RM5000	42	13.2	13.2	73.3
	RM5001 and above	85	26.7	26.7	100.0
	Total	318	100.0	100.0	

Education Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	STPM	27	8.5	8.5	8.5
	Degree	262	82.4	82.4	90.9
	Master	29	9.1	9.1	100.00
	Total	318	100.0	100.0	

Central Tendency measurement of construct

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PI1	318	1	5	3.98	1.185
PI2	318	1	5	4.03	1.090
PI3	318	1	5	4.13	.982
PI4	318	1	5	4.10	.979
Valid N (listwise)	318				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
SI1	318	1	5	4.12	1.063
SI2	318	1	5	4.22	1.060
SI3	318	1	5	4.21	1.057
SI4	318	1	5	4.18	1.041
Valid N (listwise)	318				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PC1	318	1	5	4.07	.949
PC2	318	1	5	4.13	1.047
PC3	318	1	5	4.19	.975

PC4	318	1	5	4.26	.981
Valid N (listwise)	318				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
FC1	318	1	5	4.29	.994
FC2	318	1	5	4.25	.960
FC3	318	1	5	4.25	.964
FC4	318	1	5	4.23	1.025
Valid N (listwise)	318				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
BI1	318	1	5	4.18	.985
BI2	318	1	5	4.27	.868
BI3	318	1	5	4.15	1.014
BI4	318	1	5	4.23	1.006
Valid N (listwise)	318				

Reliability Analysis

Case Processing Summary

		N	%
Cases	Valid	318	100.0
	Excluded[a]	0	.0

Total	318	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.954	.955	5

Item Statistics

	Mean	Std. Deviation	N
mPI	4.16	.825	318
mBI	4.21	.801	318
mSI	4.18	.879	318
mPC	4.17	.814	318
mFC	4.26	.810	318

Inter-Item Correlation Matrix

	mPI	mBI	mSI	mPC	mFC
mPI	1.000	.817	.801	.995	.780
mBI	.817	1.000	.740	.808	.823
mSI	.801	.740	1.000	.794	.747
mPC	.995	.808	.794	1.000	.774
mFC	.780	.823	.747	.774	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	.808	.740	.995	.255	1.345	.005	5

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.98	14.426	3.798	5

Correlations

Descriptive Statistics

	Mean	Std. Deviation	N
mPI	4.14	.826	318
mSI	4.18	.867	318
mPC	4.17	.822	318
mFC	4.26	.810	318
mBI	4.20	.822	318

Correlations

		mPI	mSI	mPC	mFC	mBI
mPI	Pearson Correlation	1	.762**	.924**	.765**	.799**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	318	318	318	318	318
mSI	Pearson Correlation	.762**	1	.797**	.745**	.753**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	318	318	318	318	318
mPC	Pearson Correlation	.924**	.797**	1	.772**	.813**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	318	318	318	318	318
mFC	Pearson Correlation	.765**	.745**	.772**	1	.813**

	Sig. (2-tailed)	.000	.000	.000		.000
	N	318	318	318	318	318
mBI	Pearson Correlation	.799**	.753**	.813**	.813**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	318	318	318	318	318

**. Correlation is significant at the 0.01 level (2-tailed).

Multiple Regression Analysis

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	mFC, mSI, mPI, mPC[a]	.	Enter

a. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.870[a]	.757	.754	.408

a. Predictors: (Constant), mFC, mSI, mPI, mPC

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	162.009	4	40.502	243.421	.000[a]
	Residual	52.080	313	.166		
	Total	214.089	317			

a. Predictors: (Constant), mFC, mSI, mPI, mPC

b. Dependent Variable: mBI

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	.251	.129		1.943	.053	-.003	.504		
	mPI	.163	.074	.164	2.196	.029	.017	.309	.140	7.157
	mSI	.129	.047	.136	2.773	.006	.038	.221	.322	3.105
	mPC	.248	.079	.248	3.128	.002	.092	.404	.123	8.105
	mFC	.401	.048	.395	8.336	.000	.306	.495	.346	2.891

a. Dependent Variable: mBI

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	mPI	mSI	mPC	mFC
1	1	4.951	1.000	.00	.00	.00	.00	.00
	2	.026	13.739	.94	.01	.03	.01	.00
	3	.011	21.337	.01	.14	.60	.07	.08
	4	.009	22.864	.05	.00	.33	.01	.92
	5	.003	42.128	.00	.84	.04	.91	.00

a. Dependent Variable: mBI