

SELLERS' INTENTION TO ADOPT MOBILE
PAYMENT IN KLANG VALLEY

BY

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LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
ATM	Automated Teller Machine
BI	Behavioural Intention
CEMEA	Central Europe, Middle East and Africa
EE	Effort Expectancy
E-commerce	Electronic commerce
E-payment	Electronic payment
ICT	Information and Communication Technology
IDT	Innovation Diffusion Theory
IT	Information technology
MCMC	Malaysian Communications and Multimedia Commission
NFC	Near field communication
PC	Perceived cost
PE	Performance Expectancy
PS	Perceived Security
RF	Radio frequency
SE	Self-efficacy
SIM	Subscriber Identification Module
SME	Small medium enterprise
SPSS	Statistical Package for Social Science
TAM	Technology Acceptance Model
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
VIF	Variance inflation factors

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PREFACE

In order to complete the study of Bachelor of International Business (Hons) in Universiti Tunku Abdul Rahman, conduct a research project is prerequisites. The research topic that we had chosen is sellers' intention to adopt mobile payment in Klang Valley.

The researchers noticed that the world trend's mobile payment transactions are taking place of many conventional payment methods. This phenomenon has become very popular in many countries such as China, Singapore and the United States. In Malaysia, there is also increasingly more people are using mobile payment. Contemporary, there are many researches study on consumers' intention so people received many information about consumers' perspective. However, there are limited research study on merchants' intention. Hence, the researchers want to study on sellers' perspective to understand the factors that influence the sellers to adopt mobile payment in their business and also the relationship of each factors. This study provides a well comprehensive on how perceived cost, performance expectancy, effort expectancy, self-efficacy and perceived security affect sellers' behavioural intention.

This research project provides the insight of the factors that significantly affect merchants to several parties such as company management, marketers, service providers and also government. This research also provides information to future researchers to understand the merchants' prospect.

ABSTRACT

The development of technology has changed the way of people performing task. Nowadays, people rely heavily on technology to complete works as technology help to enhance and increase efficiency. Mobile payment has become popular in both businesses and consumers' context as it contributes many benefits to them. The global mobile payment trend is increasing dramatically as well as in Malaysia. In Malaysia, there are many consumers' subscriptions however low mobile payment usage compares to other countries in Asia. This is because Malaysian merchants' adoption rate is relatively low.

This objective of this research is to investigate, understand and identify the factors that affect sellers' intention to adopt mobile payment aiming to understand the reason of low adoption rate among the businesses. The data was collected by using survey questionnaire for this study. These questionnaires were distributed to microbusiness owner that consumers are spent to majorly in retails, hawker stalls, street sellers and restaurants. The researchers used Software Package for Social Sciences (SPSS) to analyse the data collected and shows in tables and diagrams. Base on the results then future discuss the impact and relationship of each factors to the sellers' intention.

This research found out perceived cost, performance expectancy, effort expectancy, self-efficacy and perceived security have positively and significantly impact on sellers' intention to adopt mobile payment. The results contribute for the managerial implication and policy maker to consider when these parties want to find ways to increase the merchants' adoption rate to boost up the usage of mobile payment in Malaysia.

CHAPTER 1

INTRODUCTION

1.0 Introduction

This chapter provides an overview of this study to examine the factors to influence sellers' intention to use mobile payment. At first, the researchers have briefed the research background by describing mobile payment and the trend of using mobile payment in other countries and Malaysia. In addition, researchers develop the problem statement to explain the idea to stimulate and direct researchers to investigate. Research questions and objectives are also developed to describe this purpose of this study. Then, significance of this study also have been highlighted to explain the usefulness of this study. Then, the organisation of this study also provides a brief about each chapter in this study.

1.1 Development of Mobile Payment

According to Fernandes (2013), the advancement of the internet technology and the growth of electronic commerce (e-commerce) have led to a dynamic business environment, where transactions are performed without face-to-face interaction. In accordance with Nanekaran (2013), e-commerce is one of the important conditions for revolution of Information and Communication Technology (ICT) in the economy field, and it can be defined as interaction between data management systems, communication systems and security. Additionally, e-commerce is related to buying and selling through the use of the internet, or performing any transaction that involving the use of computer-mediated network in transferring the ownership or rights to use goods and services.

In accordance with Nguyen and Huynh (2018), electronic payment (e-payment) is viewed as one of the main components for the development of e-commerce, as it helps to increase user efficiency as well as to raise the intention of using e-commerce in this era of digitalization. Goh (2017) also added that the development of e-commerce is established upon e-payment, where many commerce collaboration regards this e-payment system as an important element for successful businesses as well as financial services. E-payment can be generally referred to as a platform for performing online transaction through the internet (Junadi, 2015). Moreover, Kalakota and Whinston (1997) (as cited in Abrazhevich, 2004; Kabir, Saidin & Ahmi, 2015) states that e-payment is financial exchange between seller and buyer that take place in an online environment. Furthermore, e-payment also can be known as payments that involve money exchange in the form of electronic (Kaur & Pathak, 2015).

In accordance with Hord (2005), e-payment is referred to the cashless payment process that does not involves a paper instrument usage. According to Nguyen and Huynh (2018), the instantaneous development of information technology (IT) has eased the growth of e-payment. With the proclivity development of e-payment systems, it will show its potential to change from a cash-based economy to a cashless economy. Moreover, the e-payment systems have covered several e-channels which including debit or credit card, electronic banking, e-cash, e-wallet, and wireless payment. Based on the research done by Amorosa and Magnier-Watanabe (2012), the development of mobile commerce or the purchase of goods and services that using mobile device rely heavily on the reliability, availability and acceptance of mobile wallet applications.

According to Yan, Md-Nor, Abu-Shanab, & Sutanonpaiboon (2009), mobile payment (m-payment) is a wireless based electronic payment system that enable individual to perform payment for transactions by using mobile devices such as smartphone, cellular phones and personal digital assistants. Payment that perform by mobile phone are defined as mobile payment (Kruger, 2001; Shon & Swatman, 1997). There are two major forms of mobile payment include cellular mobile payment and contactless mobile payment. In accordance Chen and Nath (2008), cellular mobile payment is also known as “dial and confirm”, where payments are

performed through the usage of cellular mobile devices for both point-of-sale and online transactions. On the other hand, contactless mobile payment is known as “wave and go”, which do not involve any contact between payment devices and interfacing reader of merchants. In addition, the transmission between transaction data and the point-of-sale terminal of seller is supported the transmission technologies including radio frequency (RF) and near field communication (NFC).

Table 1.1: Difference between Cellular and Contactless Mobile Payment

	Cellular Mobile Payment	Contactless Mobile Payment
Primary Usage	Online Transaction and point of sales purchase	Point of sale purchase
Operating Distance	Long distance	Within 20 centimetres
Authentication	Authenticate users via Subscriber Identification Module (SIM) or require a PIN and password.	Manual authentication according to the bankcard association rule and merchants' tolerance strategy
Connectivity	Communication initiated by consumers	Automatic or manual initiation of communication when the devices is within the reader's electromagnetic field.
Speed	Slow if manual data entry is required. Become fast if the information is stored in the device.	Fast
Example	PB Engage, Maybank2U, CIMB Click, Hong Leong Bank Connect and etc.	Boost, TNG E-wallet, Fave Pay, Grab Pay, Alipay, WeChat Pay and etc.

Source: Chen and Nath (2008). Determinants of mobile payments: an empirical analysis. *Journal of International Technology and Information Management*, 17(1), 2.

Both cellular mobile payment and contactless mobile payment are used to increase the number of transaction and the revenue of the business and improve the operational efficiency. However, these two types of mobile payment are slightly different as explain in Table 1.1.

Mobile Payment Process

In cellular mobile payment, firstly the consumers have to set up an account with the mobile payment provider and link to the payment mechanism for example credit card, debit card and bank account. After that, the consumers link their own phone number to create and establish the account. Then, the consumers have to initiated the payment by using their own mobile phone to send a message to mobile payment provider and the transaction is proceeded when the consumers provide a PIN or password to the provider since prompted (Chen and Nath, 2008).

On the other hand, in contactless mobile payment is supported by near field communication (NFC), which consumers waves an NFC chip-equipped mobile phone with particular application that nearby the reader to perform a transaction. Transaction by using contactless mobile payment only involves payment information, IC cards and mobile phone.

1.2 Smartphone and Internet Penetration in Malaysia

In this technology era, technology has evolved our lifestyle. Business practices in Malaysia have also changes over decades as the emerging of internet and technology advancement. The technology advancement of internet has provided opportunities for e-commerce. Moreover, the development of e-payment is derived by the growth of e-commerce as many business cooperation has seen it is important for the business service (Kousaridas, Parissis & Apostolopoulos, 2008). Technology helps us to perform many tasks and even the way we pay for goods. Unsurprisingly, human cannot live without smartphone as it brings many benefits in our life. The smartphone is an important device has affected business practices for example, advertisement, socialize and the new payment method. Microbusiness have hold the important of using mobile payment due to is the fastest and easiest mode to deliver the cash to business partners (Anurag, Tyagi & Raddi, 2009).

The main tools to perform mobile payment are internet and smartphone. Internet has become more important in our daily life as Internet facilitates our works, thus Malaysia internet penetration rate has increase to 85.7% (Fintech News Malaysia, 2019). Moreover, based on survey by Malaysian Communications and Multimedia Commission (2017), smartphone is ranked the most common devices to use to perform activities. In other word, Malaysians rely smartphone to perform majority of tasks. Given the increase number of the smartphone users, it is no surprise that smartphone has begun to replace traditional payment method and use as an effective transaction device. In particular industry especially telecommunication is looking the way to increase their profit by providing payment option that customers can use their smartphone to pay (Dornan, 2000). Having a smartphone is the prerequisite for users to use the mobile payment system, however a widely use of mobile payment has not aroused (Carlson, Dickson, Jelassi, Vogel, & Walden, 2001). Hence, this research wants to examine the factors that affect success adoption of mobile payment.

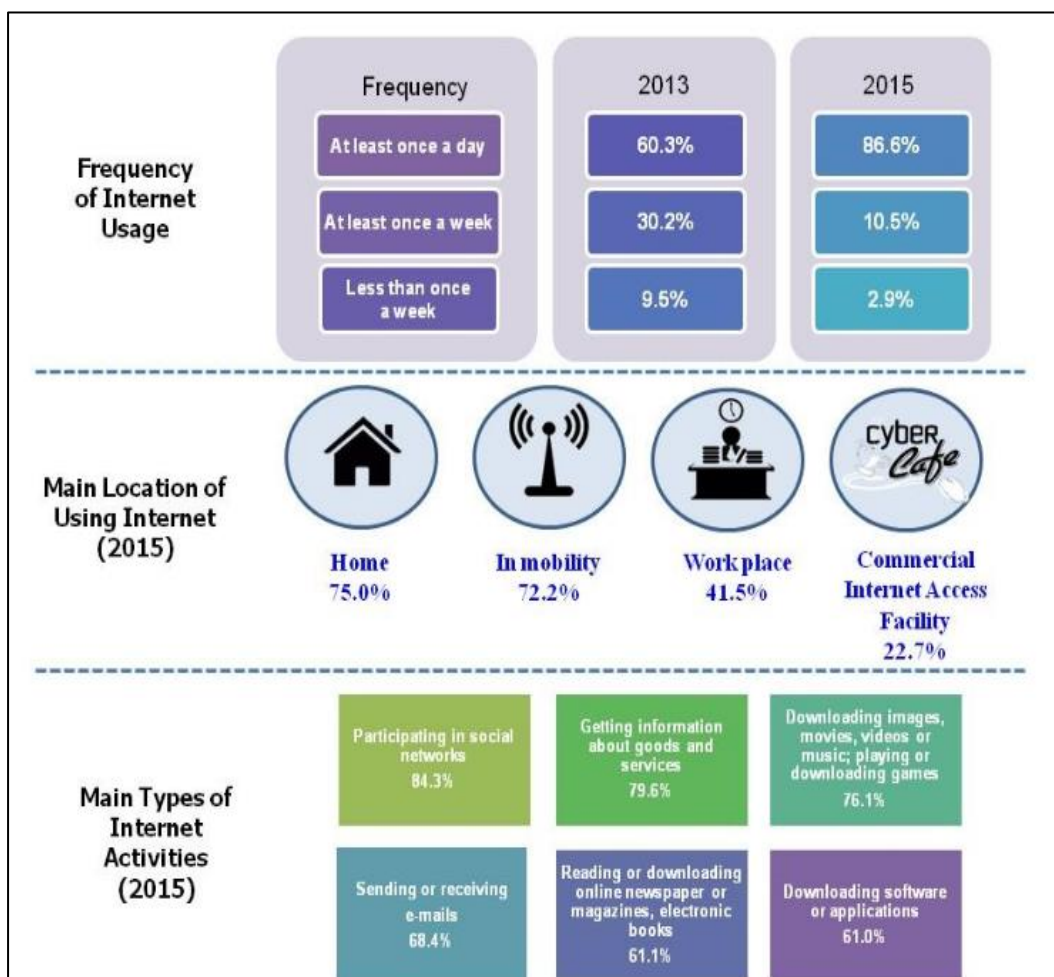
Table 1.2: Reason not using Internet

Reason not using Internet	2014 (%)	2016 (%)
Lack of confidence or skills	47.4	58.1
Lack of interest	32.5	46.3
Not enough time	24.0	32.7
Senior citizen	-	32.0
Cost too high	13.6	28.1
No Internet access	14.8	26.9
No device	12.1	23.7
Concern that content is harmful	4.9	21.8
Privacy concerns	3.6	20.7
Viruses and security concerns	3.7	20.7
Others	3.0	1.3

Source: Adapted from MCMC (2017). Internet Users Survey 2017. Retrieved February 22, 2019, from <https://www.mcmc.gov.my/skmmgovmy/media/General/pdf/MCMC-Internet-Users-Survey-2017.pdf>

In addition, according to Malaysian Communications and Multimedia Commission's (MCMC) (2017) survey, Malaysian internet users and e-commerce participation has increased as compared to 2016. Although the e-commerce rate has increased, it still has more than 50% respondents do not agree to use ecommerce. MCMC concluded several reasons that Malaysians do not want to use ecommerce. "lack of confidence or skill" and "cost is too high" had become the top five reasons that Malaysian do not want to use internet, hence it may lead to Malaysia stands behind than other countries in implementing mobile payment.

Figure 1.1: Internet Usage by Frequency, Location and Activities, Malaysia, 2013 and 2015



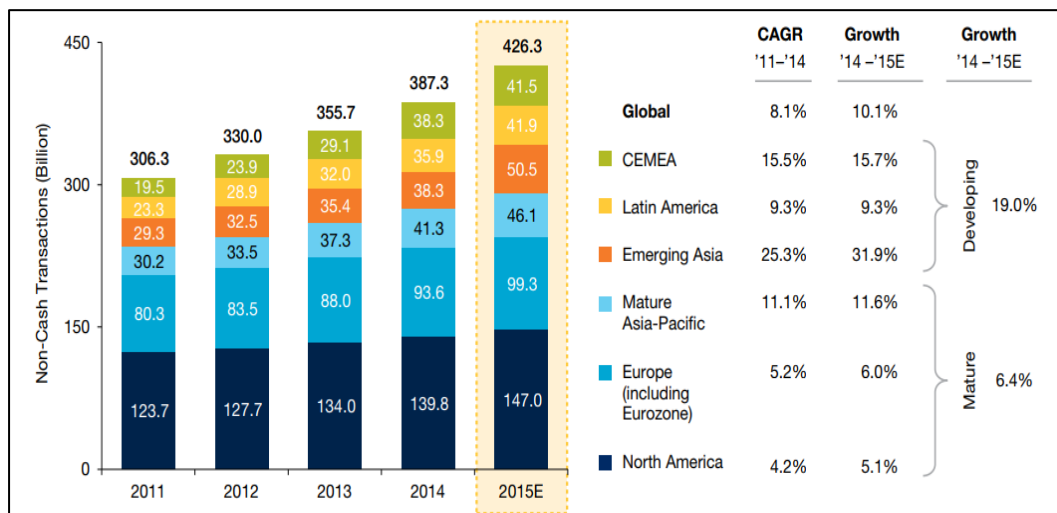
Source: Adapted from Department of Statistic Malaysia (2016). ICT Use and Access by Individuals and Households Survey Report, Malaysia, 2015. Retrieved February 22, 2019, from https://www.dosm.gov.my/v1/index.php?r=column/cthemeByCat&cat=395&bul_id=Q313WXJFbG1PNjRwcHZQTVISR1URQT09&menu_id=amVoWU54UT10a21NWmdhMjFMMWcyZz09

Although Malaysia's internet usage is very popular, the scope of usage is still very limited. Department of Statistic Malaysia (2016) has concluded that among the internet activities, social networking (84.3%) is the most popular which users only use internet to communicate follow by playing games (76.1%), sending and receiving email (68.4%), internet banking (27.4%) and online shopping (16.1%) as shown in figure 1.1. Although global have catch up the trend of using internet to perform task, Malaysia still cannot keep the pace.

1.3 Trend of Using Mobile Payment in Malaysia and Other Countries

The global trend of mobile payment has changed dramatically. Following findings discuss the trend of mobile payment in several countries.

Figure 1.2: Number of worldwide noncash transaction (billion), by billion, 2011-2015E



Source: Capgemini (n.d.). 2016 World Payment Report. Retrieved February 19, 2019, from http://www.astrid-online.it/static/upload/worl/world_payments_report_wpr_2016.pdf

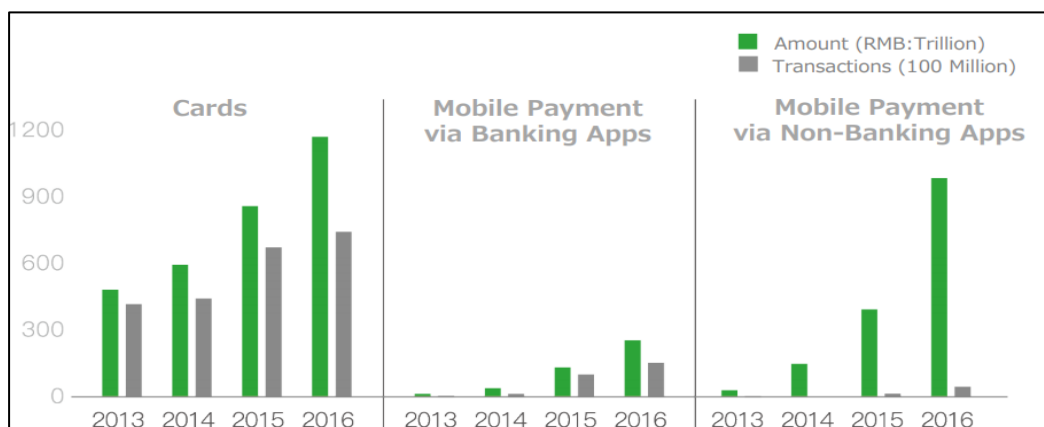
According to the Capgemini's report (n.d.), global non-cash transaction has increased 10.1% about total of 426.3 billion transaction volume. This increasing trend is mostly led by few regions' growth rate for example, Central Europe, Middle

East and Africa (CEMEA) about 15.7%, Emerging Asia with 31.9% and Mature Asia-Pacific about 11.6%. From the growth rate, we can notice that the most increasing rate is majority from the region in developing country. Overall, the global non-cash volume growth rate is in the positive growing rate. In other word, nowadays global is pursuing using lesser cash and going to the cashless society. PWC's (2018a) research of e-wallet in Malaysia finds out Malaysia is currently staying behind religion players such as China, Singapore and India. Therefore, the following part will review the mobile payment situation in these regions.

China

According to the South China Morning Post (2018), China is being the one of the fastest country to implement cashless in the world. Mobile payment has become the main instrument for settlement in most of the cities in China, not only applicable in convenience stores chains and shopping malls but markets and small shops. Alipay and WeChat Pay dominate the payment option among China account for almost 93% in the segment and increase the popularity due to their convenient. This mobile payment has provided a good medium for them to trade about 29.5 trillion yuan in the third quarter of 2017.

Figure 1.3: The Development of cashless payment in China



Source: China Tech Insights (2017). 2017 Mobile Payment Usage in China Report. Retrieved February 4, 2019, from https://www.ipsos.com/sites/default/files/ct/publication/documents/2017-08/Mobile_payments_in_China-2017.pdf

The survey conducted by the China Tech Insights (2017) reports China is going into cashless society as the usage of card and mobile payment via both banking apps and non-banking apps are at the increasing rate. Moreover, there is a dramatically rise in paying through non-banking apps from 2013 to 2016 as shown in Figure 1.3 has confirmed the report by South China Morning Post (2018) as Alipay and WeChat are widely used in China. Besides, China Tech Insights (2017) also reports that 40% of Chinese people carry only 100 yuan cash and among these 40% Chinese, 74% of people said they can live with only 100 yuan for more than 1 month, this is because Chinese can pay via phone when they do not hold any cash.

Singapore

Singapore mobile payment market is small but growing and estimated with 23% penetration and reach SGD1.5 billion in 2016 (Frost & Sullivan, 2018). In addition, according survey done by Visa reported in Chia (2017), there is increase to 87% that Singaporeans are willing and preferring to use electronic payment instead of cash. More than half of the respondents say that they view card usage is safer than cash, hence they form a habit to not carrying a large number of cash but more payment by using cards, mobile wallets and contactless card. Moreover, Singapore has more than 60% transactions are made electronically, however, hawker centres, food courts and wet markets are still demand cash. This is the common phenomenon that slow countries to become truly cashless.

According to study by National University of Singapore Business School reported in Channel News Asia (2018), the mobile payment usage has doubled when DBS Bank started to launch PayLah! mobile wallet in April 2017. From the study, the researchers have pointed out that small amount (less than SGD 100) has increased by 114% as compare to larger amount (more than SGD 100) transaction which only 88%. In other words, mobile payment is widely accepted even small merchant in Singapore after the introduction of PayLah!. Due to the habit of Singaporeans not willing to carry cash, and merchants accept mobile payment has actually helped the small merchants to gained sales amount increase by 11%.

India

India is the most increase country in adopting mobile payment in Asia Pacific. According to eMarketer research reported by Dazeinfo Media & Research (2018), India has become the world's fastest growing in mobile payment market which with a significantly increase of 39.7% of usage rate in 2017 and account to be 73.9 million Indian use mobile payment. Orbis Research reported by Dazeinfo Media & Research (2018) also reveals that India mobile payment industry is estimated to rise \$700 billion by the year 2022 and more than 80% of urban India will adopt mobile payment and increase 70% of the adoption rate of retail shop. This is because growth of smartphone penetration and advantageous regulatory environment facilitate India mobile payment to expand. In addition, PWC (2016b) reports that The Reserve Bank of India established a set of guideline for institutions in order to offer basic banking and remittance services to migrant employees, small businesses and other unserved sector to enhance the state financial access. These actions have helped the mobile payment transactions tripled in 2014 as compared to 2012, reach 150 million transactions.

Overall, these countries have high awareness and subscription of mobile payment. These countries not only have increased the usage rate of mobile payment but also increasing of merchant mobile payment adoption rate.

Trend of Using Mobile Payment in Malaysia

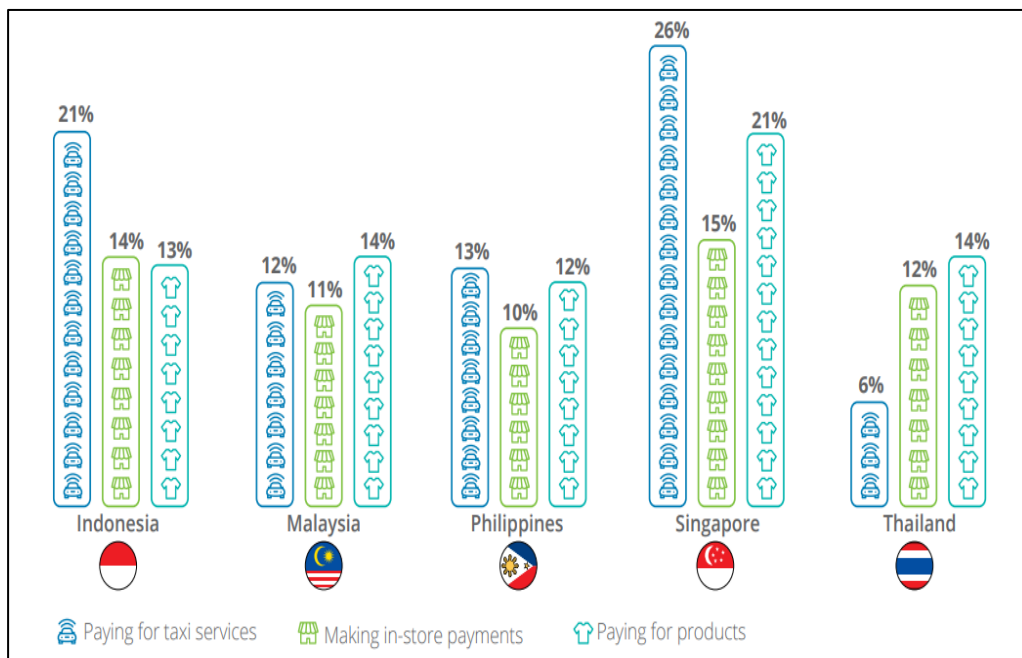
According to Lee and Daniel (2018), Malaysian consumers are increasingly familiar with using mobile phone to make transaction as statistic shows the increase number of mobile banking account by 9.9 million in 2017. The transaction through mobile banking also increase 91% over the past seven years at RM48.3 billion. Besides, the subscription to use mobile payment services developed by non-banks also increase to 3.4 million users. This indicate that Malaysian consumers are starting to accept those mobile payment service not only offered by bank but non-bank. In other words, Malaysian consumers are begun to adopt mobile payment. This have been proved by the statistic that mobile payment transactions are rose by

RM164.4 million processed by non-bank in the first half of 2018. Moreover, Wong (2017) reports Visa's study says that more than 70% Malaysian are ready to use mobile payment and think that mobile payment will replace cash and card some days. 68% Malaysian prefer contactless payments than cash. In other word, Malaysian start to accept mobile payment as a method for settlement and move forward to the global trend.

Usage of Mobile Payment in Malaysia

Another study done by Deloitte (2017) as shown in Figure 1.4 shows the most mobile payment activities in Southeast Asia. These activities include pay for taxi service, pay in-store and pay for products.

Figure 1.4: Top 3 Most Popular Payment Activities on Mobile Phone



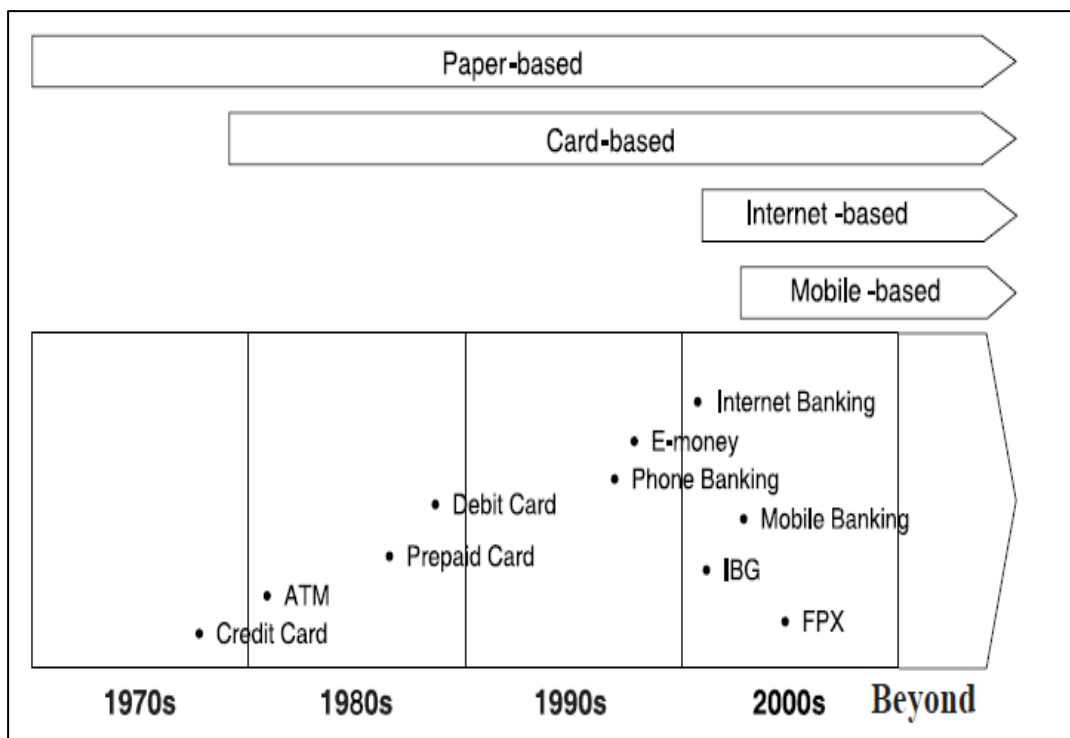
Source: Deloitte (2017). Global Mobile Consumer Survey. Southeast Asia edition. Retrieved February 5, 2019, from <https://www2.deloitte.com/content/dam/Deloitte/sg/Documents/technology-media-telecommunications/sea-tmt-2017-global-mobile-consumer-survey-sea-edition.pdf>

Based on Figure 1.4, it shows that Singapore and Indonesia are leading a way in mobile payment usage with the rest of countries including Malaysia and the Philippine is catching up Malaysia. The research has noticed that although Malaysia mobile payment subscription has increased, the usage in Malaysia still comparatively low. PWC (2018) concludes that low merchant adoption has made this phenomenon happens. This is because subscribers have no chance to use their mobile payment even they adopted if merchants are not using.

E-payment in Malaysia

In this technology era, payment system in Malaysia have evolved several times to align with the world change and the significant change is the increase involvement of non-bank institution in new payment system development.

Figure 1.5: Evolution of Retail E-payment in Malaysia



Source: Adopted from Mohammad (2008). The Development of E-Payments and Challenges in Malaysia.

The evolution of Malaysia electronic payment system is classified as the beginning in late 1990s is the deployment of the card-based payment system. Then the beginning in late 1990s is the implementation of the network or Internet-based payment systems. In mid 2000s starts to introduce of mobile-based payment system (Mohammad, 2008).

In late 1970s, card-based payment is introduced and credit card start to be blossom. Then in early 1980s the banks start to introduce Automated Teller Machine (ATM) and become a leading electronic system. But most notably for the usage of cards for retail payment become common in 2000s although cards were introduced in late 1980s. Later, chip-based infrastructure for ATM and cards in 2004 and 2005 respectively has been developed by banking industry to protect the users. After that, along with the development and advancement of the information and communication technology, payment through network and Internet are increasingly been used. Hence, mobile-based banking and payment exist in early 2000s (Mohammad, 2008).

1.4 Problem Statement

The development of mobile commerce and interaction between telecommunication and banking service have created the opportunities for the development of mobile payment. Mobile payment has become popular in Malaysian daily life as discussed above. However, PWC (2018) reveals that Malaysia mobile payment usage still relatively lower than other country.

Malaysia is still having a long journey to truly establish mobile payment and successfully transform into cashless society as Malaysians prefer to use cash for payment (FMT Media Sdn Bhd, 2019). The reason that Malaysian consumers continuously to use cash is because merchants still only accept cash payment (Tan, 2018). Malaysia is growing popularity of the mobile payment usage but still face some challenges as majority of sellers reluctant to use mobile payment. Hence, consumers have lesser point of sales that accept mobile payment service. Besides, smaller retailers and street sellers need quick access to daily cash in hand when they have to pay to suppliers who only accept cash, so in Malaysia the small business sellers still demand cash (Marketing Magazine, 2017). Thus it can be seen Malaysians are ready to use mobile payment however merchants oppose. This has explained the phenomenon of the increasing subscription of users but relatively low mobile payment usage in Malaysia.

As a result, Former Governor of Central Bank of Malaysia, Tan Sri Muhammad Ibrahim announced that RM5, 000 per transaction by individuals and small medium enterprises (SMEs) may waived the instant transfer fee of 50 sen. Not only this, the banks also charge the cheque fee from 50 sen to RM1 (Star Media Group Berhad, 2017). In addition, Digi also offer a low merchant discount rate of 0.8% for SMEs and micro-businesses (Star Media Group Berhad, 2018). These actions conducted by those parties are aiming to encourage the merchant to use mobile payment. In other word, recently, there are few merchants accept this mobile payment service. Hence, they increase the price of cheque to increase business operation cost and offer a lower rate of mobile payment to reduce the business expenses, to boost up the mobile payment penetration. This study's objective is to identify the factors that

affecting the low adoption rate among businesses which slow down the mobile payment in Malaysia.

1.5 Research Questions

There are several research question has been developed regarding to this study to support and determine the factors that affect sellers' intention to adopt mobile payment. These questions are:

1. Does perceived cost affect the sellers' intention to adopt mobile payment?
2. Does performance expectancy affect the sellers' intention to adopt mobile payment?
3. Does effort expectancy affect the sellers' intention to adopt mobile payment?
4. Does perceived security affect the sellers' intention to adopt mobile payment?
5. Does self-efficacy affect the sellers' intention to adopt mobile payment?

1.6 Research Objective

Generally, this study aims to identify and understand the seller perspective in adoption of mobile payment in Klang Valley. Specifically, this study attempts to:

1. To identify the factors affecting sellers' intention to adopt mobile payment.
2. To determine the relationship between these factors and the intention to adopt.
3. To examine the effect of these factors on the intention.

1.7 Significance of the Study

The rapid improvement and development of technologies have led the country to become more advanced. However, mobile payment is an inevitable trend and is growing rapidly around the world. Hence, seller must become innovative to accept new technology in order to keep up with the pace of time. This study will help the company management and policy makers of particular institutions to understand the perception and need of the seller including the reasons for sellers' acceptance and resistance to use mobile payment. A clear and comprehensive understanding of the factors to influence sellers' intention can help the service provider and other related parties to develop an appropriate marketing strategies, related training workshop and awareness programme to educate and encourage sellers to accept mobile payment installation in their business.

Besides, this study also provides other researchers a fundamental for further study on the mobile payment in sellers' perspective. There are limited researches are conducted to study sellers' intention of mobile payment adoption in Malaysia as majority only study on the consumers' perspective. Hence, this study provides the supportive information and data to better understanding of current situation.

1.8 Organisation of Study

This research comprises of total five chapters. Each chapters will present different contents but link to one another. These chapters are in a flow as below:

Chapter 1 provide an introduction of this study at the beginning. This chapter discusses the research background. By viewing the research background, researchers can identify the problem statement and research objectives and hence provide the relevant significance of this study.

Chapter 2 reports the literature review by reviewing several past researches and define the variables and frameworks use in this study. Hence, relevant theoretical frameworks have been studied and used to support the proposed framework. A well study of theoretical frameworks and theories also help the researches to identify the relevant independent and dependent variables to adopt in this study and hence develop the hypothesis for investigate.

Chapter 3 discuss the methodology of this study. This chapter explains the research design, sampling design and method to collect data. In addition, this chapter also reports the construct measurement, measurement scale and data analysis tool that can be used to test the hypothesis.

Chapter 4 presents the finding in this study. This chapter reports the results that relevant to hypothesis and objectives. The results are generated by the information collected from respondents through questionnaire. This chapter consists of descriptive and inferential analysis. In addition, this chapter also discuss the major finding to prove the research objectives and hypothesis.

Chapter 5 provides a summary of this study. This chapter discusses the implications for relevant parties. Besides, limitation of this study also reported and researchers also provide some appropriate recommendations for future study.

CHAPTER 2

LITERATURE REVIEW

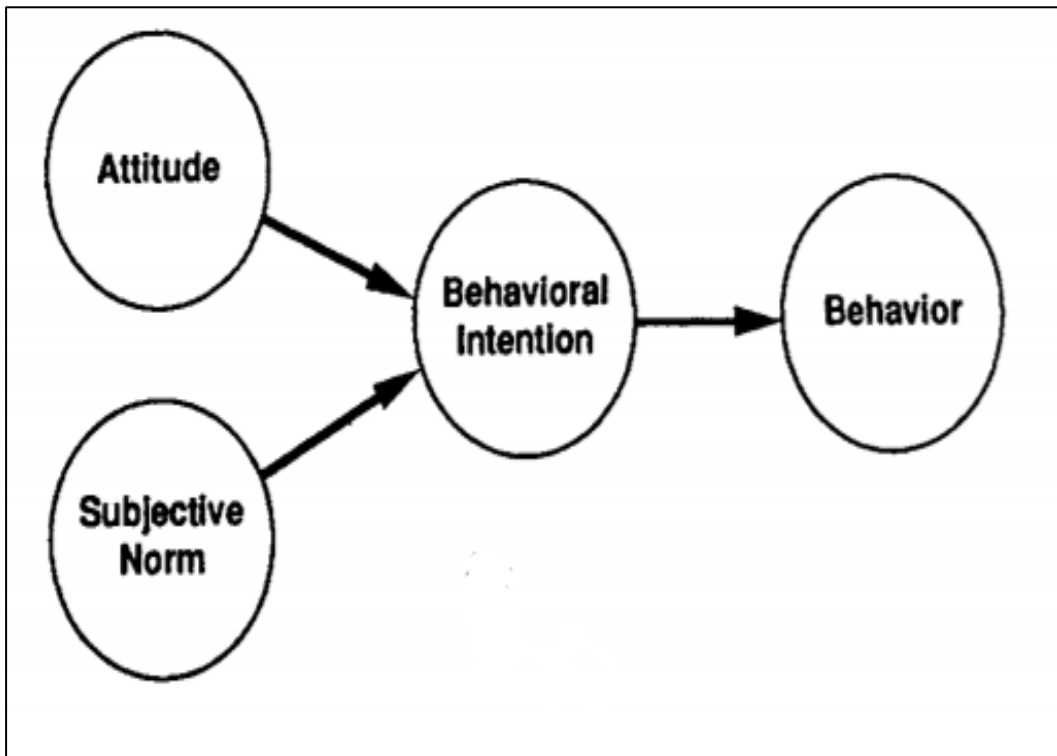
2.0 Introduction

This chapter consists of three parts that present a literature review of the factors to influence users' intention to adopt mobile payment application. This chapter includes the review and argument of literature review for this research to define the term that can use in this topic. The first part begins with the review of relevant theoretical models such as TRA, TBP, TAM and IDT that help us to develop a framework to examine the relationship between the variables. Then, second part is the exploration on the variables that related to this topic. The third part is hypothesis development.

2.1 Theory of Reasoned Action (TRA)

According to Lin & Xie (2014) and Venkatesh et al., (2003), TRA is drawn from social psychology, and it is suggested by Fishbein and Ajzen in 1975. Besides that, Madden, Ellen, & Ajzen (1992) has stated that TRA has been widely used in predicting behavioural intentions and behaviours.

Figure 2.1: Theory of Reason Action



Source: Adapted from Madden, Ellen, & Ajzen (1992). A comparison of the theory of planned behavior and the theory of reasoned action. *Personality and social psychology Bulletin*, 18(1), 3-9.

Fishbein and Azjen (1975) has suggested two conceptually different sets of beliefs antecedent to individual's intentions which are behavioural belief and normative belief (Lin & Xie, 2014; Madden et al., 1992). According to Madden et al., (1992), the behavioural beliefs influence one's attitude toward performance of behaviour, while the normative beliefs are posited to influence one's subjective norm about performance of behaviour.

Based on the research done by Madden et al., (1992), Fishbein and Azjen (1975) has also identified three boundary conditions that can influence the degree of relationship between behavioural intention and behaviour. The boundary conditions include the extent to which the levels of specificity is related with the measure of intention and the behavioural criterion, the intentions stability between time of measurement and the behaviour performed, and the extent to which the intention carried out is under the one's volitional control.

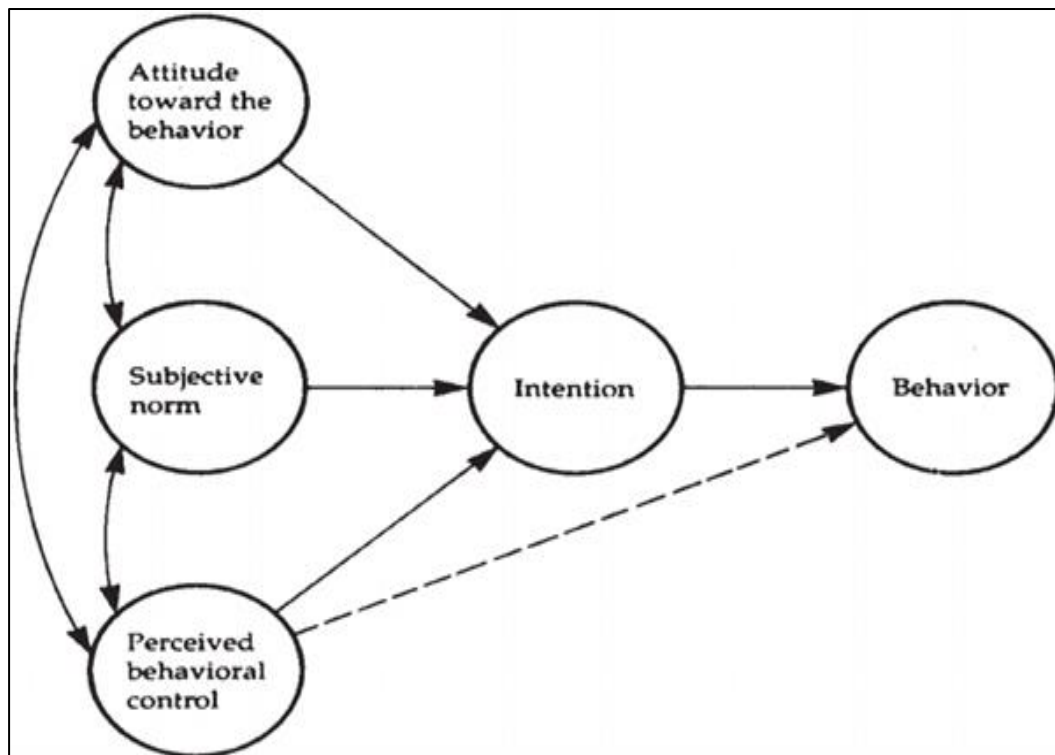
In accordance with Lin & Xie (2014), TRA only deals with behaviours performed under one's volitional control. Hence, behaviours that are determined by factors beyond one's volitional control and actions performed that require resources, knowledge, skills, cooperation from others, or necessities to overcome environmental barriers will fall outside the boundary conditions set for TRA.

According to Otieno, Liyala, Odongo and Abeka, (2016), the TRA is a theory that generally used in adoption of technology. Besides, Chi, Huery and Yang (2011) used TRA to study the intention to purchase smartphone. Syed, Mohd, Nor, Tareq and Mst (2012) had also used TRA to examine the adoption of ICT. Other than that, Cao, Dang and Nguyen (2016) Shaimaa and Eman (2015) had used TRA to examine the intention to adopt mobile payment and mobile commerce.

2.2 Theory of Planned Behaviour (TPB)

According to Azjen, (1991), Madden et al., (1992) and Venkatesh et al., (2003), theory of planned behaviour is an extension of theory of reasoned action that proposed by Azjen (1985). This theory has explicitly includes the perceived behavioural control as a contributing factor to intentions and behaviour.

Figure 2.2: Theory of Planned Behaviour



Source: Adapted from Azjen (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.

Trafimow, (2009) has defined perceived behavioural control as how much control that an individual think they have over their action. In accordance with Azjen, (1991) and Aydin & Burnaz, (2016), perceived behavioural control is referred to as the perceived simplicity and difficulty in performing action and behaviour, and it is presumed to reflect past experience and expected barriers. Other than that, Azjen, (1991) also states that TPB made necessary by the limitation of TRA in dealing with behaviours of individuals who having incomplete volitional control.

TRA suggests that behavioural intention can seek expression in behaviour only if the behaviour performed is under volitional control (Ajzen, 1991). While according to Madden et al., (1992), TPB has extended the boundary condition of volitional control by incorporating the belief about possession of necessary opportunities and resources for performance of given action. In accordance with Ajzen, (1991), TPB believes that the performance of most behaviours will depend at least to certain extent on non-motivational factors including readiness of necessary opportunities and resources such as time, knowledge and skills, or cooperation from others. These non-motivational factors collectively denote the individual's actual control over the behaviour. A person could success in executing the behaviour if he has the required opportunities and resources and the intention to perform such behaviour.

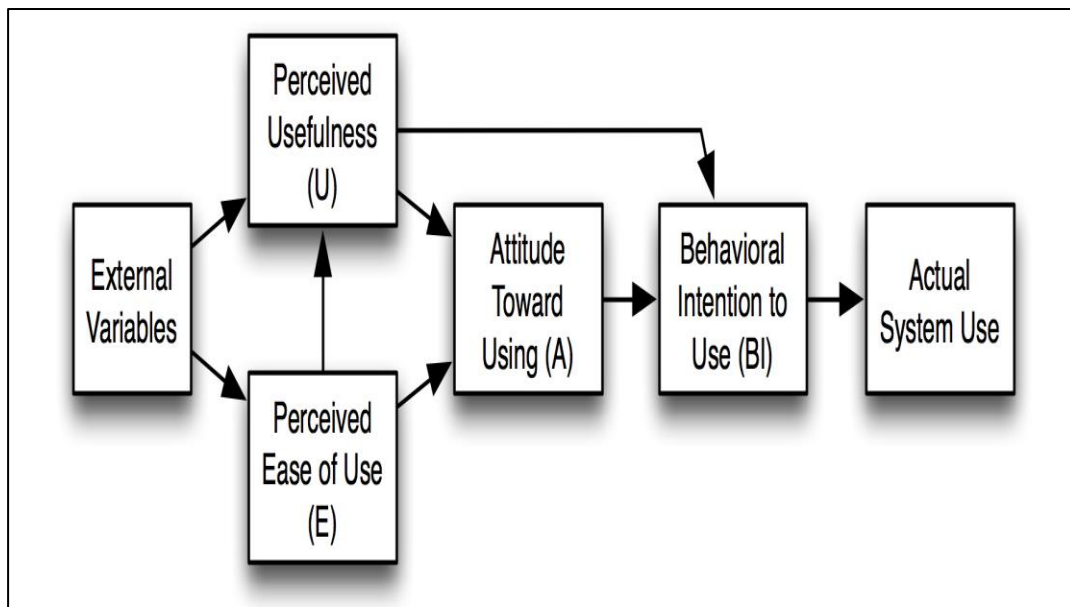
Madden et al., (1992), has stated that perceived behavioural control is incorporated as an exogenous factor that possesses both a direct effect on behaviour as well as an indirect effect on behaviour via behavioural intentions. The indirect path is assumed that perceived behavioural control as the motivational factors for intentions, whereas the direct effect is based on the assumption that perceived behavioural control as the actual control that individual possesses over the behaviour.

Nurudeen, Shehu and Rafidah (2013), Mohamed and Tarek (2013), and Beiginia, Besheli, Soluklu and Ahmadi (2011) have use TPB in determining the intention to adopt mobile banking service. Moreover, Shafinah, Sahari, Sulaiman, Yusoff, and Ikram (2013), Liébana-Cabanillas, Ramos de Luna and Montoro-Ríos (2017) and Ting, Yacob, Liew and Lau (2016) have used TPB in examining the intention to adopt mobile payment.

2.3 Technology Acceptance Model (TAM)

Technology Acceptance Model was originally adapted from the Theory of Reasoned Action (TRA) and introduced by Davis (1989), used to predict and explain the determinants of the acceptance and use of technology lead to the behavioural intention.

Figure 2.3: Technology Acceptance Model



Source: Adapted from Davis (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 319-340.

Behavioural intention is determined by the perceived usefulness and perceived ease of use (Davis, 1989). This model studied the relationship between perceived ease of use, usefulness and the computer efficacy (Venkatesh and Davis, 1996). Perceived usefulness explained the extent to which user believes that using a particular technology will enhance the work performance. On the other hand, perceived ease of use explained the extent to which user believes that using a particular system will be free of effort (Davis, 1989). Both perceived usefulness and perceived ease of use have affected the user's attitude toward using the technology lead to the formation of behavioural intention.

Acceptance Model is the most generally used framework to examine the factors that affect users to accept or refuse the information system (Wu and Wang, 2005). Pavlou (2003) and Gefen, Karahanna and Straub (2003) used TAM to examine several types of technology system related to individual and organisation adoption of e-commerce and online shopping. Dalhberg's study as cited in Bachfischer, Lawrence and Steele (2004) have linked TAM with mobile payment when identify the factors of acceptance in mobile payment. Thus, Chen, Shing Han and Chien Yi (2011) study applied TAM in online contexts such as e-payment because TAM is more specific on information system usage.

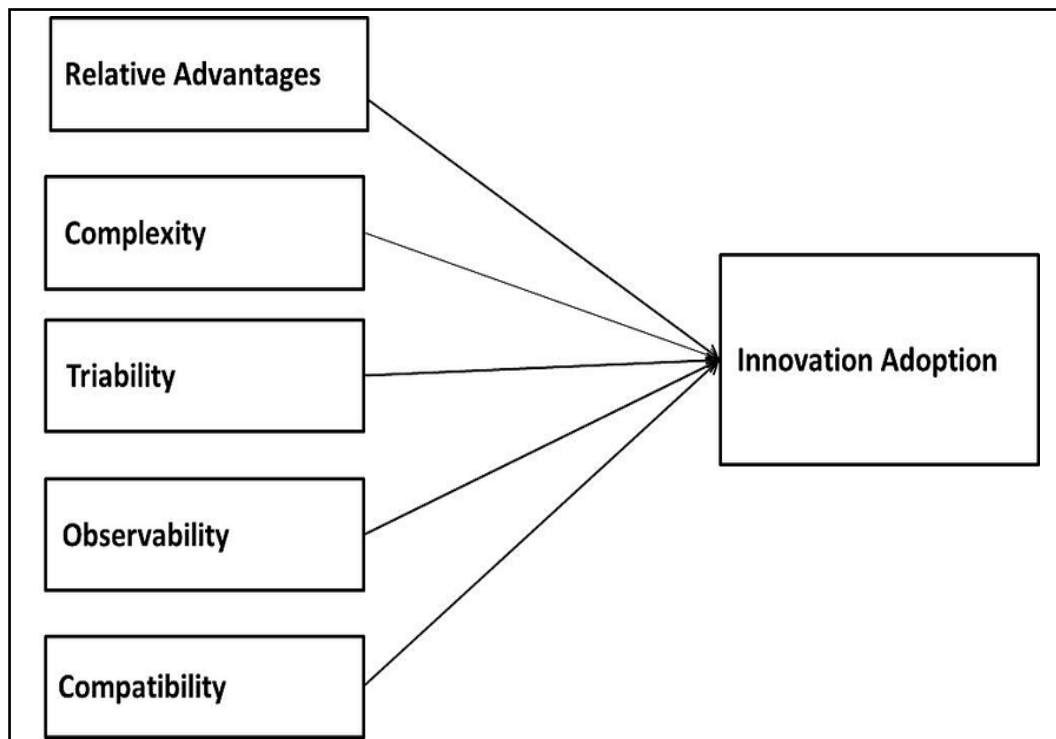
TAM has been studied in various setting and used in many researches. For example, TAM has been used when examined the acceptance of technology in Hong Kong school existed in the study of Hu, Clark and Ma (2003). In Md Noor, Hashim, Haron and Ariffin's study as cited in Anuar and Othman (2010) also used TAM to examine the information sharing at the customer to community travel and tourism websites. Shafeek (2011) also examine the acceptance of eLearning system among teachers also modified TAM. According to Suping and Yizheng study as cited in Osei, Seth and John research (2015) stated TAM is useful in the area of electronic banking as TAM's main determinants which are perceived usefulness and ease of use have directly influenced electronic banking. Moreover, Perkings and Annan (2013) also confirmed that TAM variables have a significant influence on user's intention to adopt online banking. Besides, Amin (2008) also reveal that TAM variables have significant impact on customer intention to use mobile phone credit cards. Another research conducted by Ramayahm, Mohd Suki and Ibrahim (2005) used TAM to examine the intention to use online bill payment system among postgraduate students in Malaysia that proved the applicability of TAM. TAM contributed 62% variance in the intention to adopt electronic filing systems in Taiwan in Wang (2002) study. The study showed perceived usefulness and ease of use have the significant impact on behavioural intention. Another research done by Lallmahamood (2007) found that perceived usefulness and ease of use have 53.2% variance intention to adopt online banking. Takele and Sira (2013) verified that perceived ease of use and perceived usefulness are the major factors induced user's intention to accept and practice e-banking service.

Agarwal and Karahanna (1998) research also added self-efficacy to TAM model. Amin, Baba and Muhammad (2007) also found that perceived self-efficacy, an added variable with TAM is a significant factor of the behavioural intention on mobile banking acceptance by Malaysian customers. Moreover, Lim study as cited in Surendran (2012) has also modified TAM and added self-efficacy, perceived risk and social influence variables in order to examine the new technology acceptance. Pavlou (2003) also added variable trust and perceived risk into TAM in order to study the acceptance of ecommerce. Mbogo (2010) also adapted TAM with perceived security and perceived cost to study the impact of mobile payment as researcher finds out these two variable is important to assess business perspective.

2.4 Innovation Diffusion Theory (IDT)

Innovation Diffusion Theory (IDT) is used to examine and describe the way a technology being accepted and shared in small or large societies (Rogers, 2003).

Figure 2.4: Innovation Diffusion Theory



Source: Adapted from Rogers (1983). Diffusion of Innovations (3rd edition), London: The Free Press.

Osei, Seth and John (2015) used IDT incorporate TAM in assessing the customers' preference in service delivery in the banking industry in Ghana. Besides, personal or organisation use is an important factor when consider an innovative technology. This is because organisation adoption decision will be slower than individual decision. In other word, the more people involved, the slower the rate of adoption. Interestingly, IDT helps in predicting the rate of adoption but does not explain how technology affect the decision process and how the technology form the attitude because the decision is made when knowledge is gained.

Moore and Benbasat (1991) found that adoption of an innovation depended on the characteristics of the technology. Rogers (2003) concluded that, the rate of acceptance of a technology is affected by 5 elements relative advantages, compatibility, complexity, trialability and observability. In short, Rogers (2003) has summarized the attributes. Relative advantage is the insight of how new technology perform better than previous innovation. Compatibility is how much the extent to which the technology aligns with past experience, value and need. Complexity explained the effort that users will be used to learn and adopt the new technology, whether easy or hard. Trialability is described as the extent which the new technology can be experienced and use before adopted. Observability is the extent of new technology can be seen when use and allow the users can be witnessed in the social group about the effects of the new technology. Rogers mentioned that the more the technology is visible, the benefits have greater opportunity to be seen. Every IDT's elements have influenced the rate of adoption.

Nor and Pearson (2008) study has concluded all constructs in IDT are the standard factors in examining the adoption of e-banking. Similarly, Vijayasathy and Jones (2004) and Keoning-Lewis, Palmer and Moll (2010) also verified that IDT variables especially relative advantage, ease of use and compatibility are the main and prominent factors of adoption e-banking technology. Moreover, Mun, Jackson, Park and Probst (2006) also found that perceived usefulness in TAM is similar to relative advantage in IDT, and perceived ease of use is relatively similar to complexity in IDT.

2.5 Determinants of Adoption of Mobile Payment

Perceived Cost

Perceived cost is the degree to which user view that using mobile payment will cost money. These costs consist of transaction cost, mobile network charge, equipment and device cost (Luarn & Lin, 2005). Normally, mobile payment involves telcos, banks, hardware and software supplier and solution integrators, hence incur of cost lead to increase cost of doing business (Van der Heijden, 2002). However, business user rate and home user rate of internet service the telcos offer to facilitate mobile payment vary (show in Table 2.1) that affect merchant to consider to use mobile payment.

Table 2.1: The Household and Business Rate Charged by Different Network Providers

	Home user	Business user	Source
Unifi	RM129/month	RM349/month	(Unifi, 2018)
Maxis Fibre	RM129/month	RM139/month	(Maxis Bhd, 2018)
TIME	RM99/month	RM348/month	(TIME dotCom Bhd, 2018)

Perceived cost is described as an important factor to analyse the acceptance of mobile service (Amberg, 2003). This is because, Pousttchi's (2003) research reveals that only one third of respondents accept to use mobile services with a transaction charge. Van der Heijden (2002) also reveals lower transaction costs are always favoured by merchants and customers as the study mentions cost stressed the merchant and consumer acceptance towards mobile payment. The study also find out merchants are willing to use mobile payment when the cost is cheaper than debit and credit card. Moreover, merchants are encouraged to use mobile payment when transaction cost is low and affordable that below than what bank charge in transaction, so the low cost has the positive relationship to the adoption of mobile payment by business (Mbogo, 2010). Hence, the hypothesis is proposed as the following:

H0₁: There is no relationship between perceived cost and sellers' intention to adopt mobile payment.

Ha₁: There is a relationship between perceived cost and sellers' intention to adopt mobile payment.

Performance Expectancy

Performance expectancy is formed by perceived usefulness of TAM and relative advantage of IDT (Ghalandari, 2012). It explained the extent to which a new technology used by the users will be provided any benefits in performing certain activities (Venkatesh, Thong, & Xu, 2012.). Performance expectancy has been widely used to examine and understand user's intention to adopt internet banking (Martins, Oliveira, & Popovic, 2014). It described that users will accept new technology when they believe technology will have positive outcomes (Compeau & Higgins, 1995). Meaning that performance expectancy has the positively significant effect on mobile payment system adoption (Kim, Mirusmonov and Lee, 2010).

In the task-technology environment, performance expectancy was found to be the strongest linkage with intention to adopt mobile payment (Baptista & Oliveira, 2015). The positive attitude towards using mobile payment is derived by the better outcome and performance achieved from using it (Venkatesh et al, 2012). In addition, Abushanab and Pearson (2007) also found users' willingness to adopt Internet Banking is highly influenced by performance expectancy. Performance expectancy has been confirmed to be an impactful variable affect users' intention to accept mobile payment in area of paying examination fee (Tossy, 2014). Convenient payment, fast response and service effectiveness will reflect user perception of performance improvement to accept Internet Banking (Zhou, Lu & Wang, 2010). It also provides an accurate prediction about the intention to accept new technology (Miltgen, Popovic, & Oliveira, 2013). Besides, performance expectancy, perceived security and mobile payment knowledge may influence mobile payment service adoption (Peng, Xiong & Yang, 2012). Yang (2005) study conducted in Singapore also found performance expectancy, attitude and

innovativeness influence users to adopt mobile commerce. Kim et al. (2010) has confirmed performance expectancy is the strongest interpreter of intention that consistent with Venkatesh studies. It also explained that users will use mobile payment when view the usage of it provides benefit, which help to complete task faster. In other word, it will directly affect behavioural intention in mobile payment adoption (Shaikh & Karjaluo, 2015). Accordingly, the following hypothesis was formulated,

H0: There is no relationship between performance expectancy and sellers' intention to adopt mobile payment.

Ha: There is a relationship between performance expectancy and sellers' intention to adopt mobile payment.

Effort Expectancy

Effort expectancy is similar to perceived ease of use of TAM and complexity of IDT (Ghalandari, 2012). According UTAUT, effort expectancy has positively impacted performance expectancy. It measures the degree of ease to use a new technology (Zarmpou, Saprikis, Markos, & Vlachopoulou, 2012). When users feel mobile payment is easy to use and no need much efforts required, they are more willing to use. Otherwise, they will have low expectancy (Zhou et al, 2010). Appiah (2017) found users see that need less effort to use internet banking to complete task, they are more likely to adopt it. Thus, many researchers have found that effort expectancy is significant and has positively influenced on behavioural intention (Moore & Benbasat, 1991; Thompson, Higgins, & Howell, 1991; Zhou et al, 2010). Effort expectancy is used to express users' perception of understandability and flexibility in using mobile payment services compared to conventional payment method. In other word, the transactions process through mobile phone must be easy to perform and instruction is easy to understand to increase the users' willingness to accept it (Musa, Khan, & AlShare, 2015). Ease of use is important to measure behavioural intention due to mobile services is new to users (Gu, Lee & Suh, 2009), and this is consistent with Moore and Benbasat's (1991) study. However, some researches find out ease of use is not significantly affect intention to use mobile

online banking (Oliveira, Faria, Thomas & Popovic, 2014). In the US context, users view effort expectancy is not significantly related to their intention (Yang, 2010) and this is unknown in Malaysia context, thereby the hypothesis is set to investigate:

H0: There is no relationship between effort expectancy and sellers' intention to adopt mobile payment.

Ha: There is a relationship between effort expectancy and sellers' intention to adopt mobile payment.

Self-efficacy

Self-efficacy is a construct taken in the extended TAM to measure users' ability to complete a task by using technology (Venkatesh et al, 2012; Boonsiritomachai & Pitchayadejanant, 2017). It indicates one's beliefs in his own skills can perform the task (Dory, Beaulieu, Pestiaux, Pouchain, Gay, Rocher & Boucher, 2009), and it will increase the chance that the task can be successfully done (Bandura, 1986). Self-efficacy can be developed by one's experience and his ability to master a new innovation (Bandura, 1986). Schunk (2000) finds that self-efficacy will increase when users learn and use web technology successfully. The functions and features of the technology influence users' self-efficacy. When the system is easy to use, users tend to have greater confidence (Chan & Lu, 2004). Moreover, users who have involved several of innovation and try previously, tend to have higher self-efficacy (Burton-Jones and Hubona, 2006).

Many studies found that self-efficacy has significant positive impact on behavioural intention to use innovatives (Hill, Smith & Mann, 1986; Luarn and Lin, 2005). Users with high self-efficacy tend to try more new type of innovations, however, users with low self-efficacy will reluctant to try and desire fewer procedure to use an innovation (Li, Dong & Chen 2012). This consistent with Ellen, Bearden and Sharma's (1991) study. Users that have particular knowledge to use online service will have more confident to use online payment (Dinev, Goo, Hu & Nam, 2009). Self-efficacy has confirmed to be one of the factors can influence users' intention to adopt mobile banking (Dasguptaa, Paul & Fuloria, 2011). Chan (2004) proposes

self-efficacy has the indirect impact on the adoption of online payment, however, Sripalawat, Thongmak and Ngramyarn (2011) finds out self-efficacy is the third determinant that affect users to use mobile banking in Bangkok. Accordingly, the hypothesis is formulated as:

H0: There is no relationship between self-efficacy and sellers' intention to adopt mobile payment.

Ha: There is a relationship between self-efficacy and sellers' intention to adopt mobile payment.

Perceived Security

Security is described the protection about users during the transmission of the payment (Whitman & Mattord, 2014). Security and trust is important and interrelated for the success of mobile transaction (Khraim, Shoubaki, & Khraim, 2011). Mobile service should be safe and reliable that can motivate users, hence security is found to be a necessary factor to make Chinese users (Laforet & Li, 2005) and Thailand users (Rotchanakitumnuai & Speece, 2003) to adopt mobile services. Users feel mobile payment system insecure as they do not have any previous experience (Bauer, Reichardt, Barnes & Neumann, 2005). Cho (2004) also finds out that new technology usually come with risks although it has benefits. This is because using mobile as a payment method always associated with high potential to lose privacy, personal data and transaction (Bauer et al, 2005). Hence, users are more likely to deny to make transaction via online because the level of perceived security is low (Tsiakis & Sthephanides, 2005). Pavlou, Liang and Xue (2007) has consistent with Cheng, Lam and Yeung's (2006) study says that security concern is a risk restraint intention to use online payment which monetary information exist. Hence, Schierz, Schilke and Wirtz (2010) has found out perceived security has a significant positively influence on mobile payment services' adoption.

Due to low security may have the potential for monetary loss happen when transaction errors or bank account misuse (Lee & Chung, 2009). However, losing mobile phone do not lead to lose of money as no one can access to the mobile-based money transfer system without a personal identification number (PIN) (Omwansa, 2009). In this mobile environment, perceived security and trust in the vendors and payment system that can protect the transaction is essential to increase the users' intention to use mobile payment (Mallat, 2007). This is because security and safety of making transaction through mobile is the main concerns for users (Mbogo, 2010). Amount that paid through mobile payment system are micropayments so the damage or lost will not be great. Security in online payment means it minimises the risk in the transaction that carried out by buyer and seller and do not disclose the transaction information (Van der Heijden, 2002). Therefore, increase the level of security can boost the willingness of seller to use mobile payment in daily transaction.

H0: There is no relationship between perceived security and sellers' intention to adopt mobile payment.

Ha: There is a relationship between perceived security and sellers' intention to adopt mobile payment.

Behavioural Intention

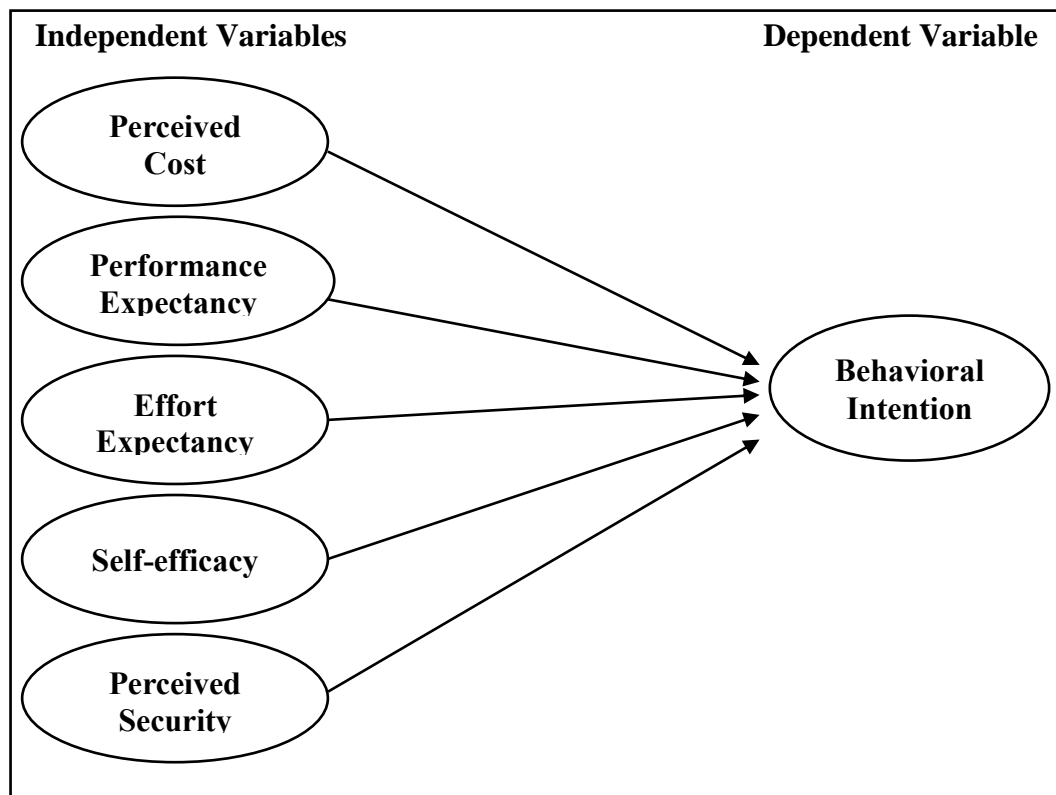
According to theory of reasoned action (TRA), behavioural intention, which is defined as a way of measuring individual's intention of doing something, can predict the degree of behaviour of individuals at which it is (Lin & Xie, 2014). Moreover, Madden, Ellen, & Ajzen, (1992) stated that the TRA postulates that behavioural intentions are the direct antecedents to behaviour and are a function of notable information or beliefs about the likelihood that a particular outcome will be led by performance of specific behaviour.

Based on the research done by and Aydin & Burnaz, (2016) and Trafimow, (2009), behavioural intention is determined by attitude and subjective norm. In accordance to Venkatesh, Morris, G.B. Davis and F.D. Davis, (2003), attitude is defined as one positive or negative evaluation of the behaviour, while definition of subjective norm is individual's perception of what important others think one should or shouldn't do. Additionally, Trafimow, (2009) also stated that attitude is determined by behavioural beliefs which refer to the beliefs about the likelihood of numerous consequences and evaluations of how good or bad the consequences would be if they happened, while subjective norm is determined by beliefs about what most people who are important to him think he should perform the behaviour and how much an individual is encouraged to conform with those important others. On the other hand, theory of planned has incorporated perceived behavioural control as a factor in determining one's intention to perform behaviour (Lin & Xie, 2014; Trafimow, 2009; Venkatesh et al., 2003)

In accordance with Venkatesh, Morris, Davis and Davis (2003), many researchers have proved that behavioural intentions will have a positive influence on usage behaviour. Moreover, Ratten (2014) has used behavioural intention in research studies to examine the technology adoption. Moreover, Jambulingam (2013), and Mtebe and Raisamo (2014) have used behavioural intention to study the adoption of mobile technology. Besides, the research done by Sun (2003) has proved that behavioural intention is a valid and reliable measurement for the actual usage. Therefore, behavioural intention is appropriate to be adopted as the dependent variable to predict the sellers' intention to adopt mobile payment.

2.5 Proposed Theoretical/ Conceptual Framework

Figure 2.5: Conceptual Framework



Source: Develop for study

The Figure 2.2 presents the conceptual framework of this research project. TAM, IDT and TPB model are applied in this research to develop the research framework. The figure above is to study the relationship between dependent and independent variables for this framework.

2.6 Conclusion

This chapter discuss the literature review on the theoretical framework and both dependent and independent variables. From the literature review, the conceptual models are proposed base on the theoretical model. Chapter 3 will continue with the research methodology.

CHAPTER 3

RESEARCH METHODOLOGY

3.0 Introduction

This chapter describes and specifies the various methods and process used in systematically gathering data as input for this current study. Research methodology involves research design, data collection method, sampling design, research instrument, construct measurement, data processing and analysis. Generally, it is essential for researchers to describe the method in conducting the research and ensure all the research processes are well defined and organized.

3.1 Research Design

In accordance with Zikmund, Babin, Carr and Griffin (2010), research design is defined as a master plan that make necessary methods and processes available for researchers to gather and analyse the needed information. In this study, primary data are collected and employed to provide researchers a clearer and in-depth understanding. Primary data is important as it enable researchers to answer the hypotheses and research questions.

In this study, 130 set of questionnaires has been distributed to a sample of individuals that based on the population characteristics to make conclusion. The primary data gathered will helps researchers to identify the specific information of the variables (perceived cost, performance expectancy, effort expectancy, self-efficacy and perceived security) that will affect the sellers' behavioural intention to adopt the mobile payment for their businesses. Reason that survey questionnaire is chosen as a method for data collection is that it is reliable and relatively simple than other methods.

3.2 Sampling Design

Target Population

This study aims to study the intention of seller to adoption mobile payment, obviously, the targeted respondents are business owner. This is because there many past studies conducted to investigate consumers' intention whereas limited study which study on seller perception. Besides, due to customers' mobile payment subscription has increased and hence the usage rate is comparatively low, so this study is conducted to examine the factors to affect sellers' intention, hence the target population is selected.

The target respondents of this study are merchants which micro-business such as hawker stalls, restaurant or retail shops. This is because micro-business is the easiest to reach. Besides, according to the Department of Statistics Malaysia (2017) reveals that Malaysian household mainly spend on housing, water, electricity, gas and other fuels (24%) and followed by the food and beverage (18%) and restaurant and hotel (13.4%). Meaning most of the Malaysian will not escape from consuming in those sector. Hence, target these micro-business allows the researchers to understand the reason they adopt and do not adopt mobile payment, and hence align with phenomenon of the high customers' subscription and low usage rate.

Sampling Frame and Sampling Location

In this study, there is no available sampling frame to be used due to limited resources. Internet is an important factor that enabling mobile payment to be used. Therefore, Klang Valley has been chosen as the sampling location for this study as this area has the highest percentage which is almost one-third (33.2%) of the total distribution of Internet users among the states in Malaysia (Malaysian Communications and Multimedia Commission, 2017). Furthermore, most of the people in Klang Valley will rely on internet for their daily activity and they have greater chance to be exposed to mobile payment.

Sampling Elements

The sampling element for this study is limited to respondents who are sellers with basic understanding about the mobile payment. The rationale that they are the respondents who more appropriate for this current study because there are definitely some reasons that will affect the decisions whether to or not to adopt mobile payment application for their businesses based on their understanding and perspective toward mobile payment.

Sampling Technique

In accordance with Zikmund et al. (2010), probability sampling and non-probability sampling are the two major sampling techniques that can be used in research. Since there is no sampling frame available, therefore researchers are required to employ non-probability sampling method for this study. Non-probability sampling is a sampling method where the samples are gathered in way that all individual within the population do not have the equal chance of being selected as respondent (Castillo, 2009). In other words, non-probability sampling is sampling method where researchers will based on their personal judgement and convenience in selecting the sampling elements (Zikmund & Babin, 2010).

In this study, the type of non-probability sampling chosen is convenience sampling. Convenience sampling is a non-probability sampling method that gather those units that are most conveniently available (Zikmund & Babin, 2010). Besides, the questionnaire will be distributed to individual who are eligible to participate the survey once they are met. The researchers have to continue to select the sample until the required sample size is reached. Convenience sampling is widely used in research as it enables researchers to collect data and necessary information in way that is less expensive and less time consuming.

Sampling Size

As according to Roscoe (1975), sample sizes that greater than 30 and less than 500 are appropriate for most of the researchers. Therefore in this study, taking into consideration the available time and transportation concern, a total of 130 hardcopy questionnaires are being distributed to respondents in Klang Valley. Besides, all questionnaires are being distributed through face-to-face method and the researchers have explained the objective of this study and assist respondents in understanding the questions asked to enhance the research validity. Among 130 respondents, 12 respondents have rejected to involve the survey. 118 questionnaires are then collected, with 103 of them are valid to be used.

3.3 Research Instrument

Questionnaire Design

As the questionnaire layout, a brief introduction and the purpose of this study are attached at the cover page to let the respondents have an idea about the research topic. In addition, the questionnaires are mainly divided into three parts. In part 1, there are 2 qualifying questions set to determine whether the respondents are eligible to proceed the questionnaires. If the respondents do not use smartphones and do not possess basic understanding about mobile payment, the respondents will not be asked to proceed the next part of questionnaire.

In Section B, there are 17 questions that have divided into six subsections. The six subsections consist of one dependent variable which is behavioural intention and five independent variables such as perceived cost, performance expectancy, effort expectancy, self-efficacy and perceived security. 5 point Likert scale is used in this section, respondents are required to choose one from the scale varying from 1 to 5 which is from strongly disagree to strongly agree, to show their degrees of agreement to the statement.

In the last part of the questionnaire, demographic information of respondents is collected. In this part, nominal scale has been used to measure the gender and races of the respondents while ordinal scale are used in measuring the age and the educational level of the respondents. Other than that, there are 2 open-ended questions are set to obtain the information about the daily sales amount and types of business that owned by the respondents.

As stated in the cover page of the questionnaire, respondents are solicited on their willingness to participate in the survey before the questionnaire is distributed. Besides, respondents may also subsequently change their mind and decide not to continue the participation in this survey. The purpose is to ensure all participation of respondents in this survey are voluntary as well as to enhance the reliability and validity of the data collected.

Pilot Test

Before the questionnaire is distributed to larger scale of respondents for data collection, a pilot test has been conducted. According to Zikmund et al. (2010), pilot test which also known as the pretest, is a small-scale study conducted with a smaller number of respondents. The purpose of conducting pilot test is to identify the errors and to make necessary amendments for minimizing the possible risks that may affect the result of the whole study. Moreover, Saunders, Lewis and Thornhill (2012) state that conducting pilot test will enable researchers to assure that their respondents understand the questions set in the questionnaire.

In this study, 10 sets of questionnaires have been distributed to respondents in Klang Valley on 30th January 2019 for the pilot testing purpose. Besides, feedback gathered from respondents also enable researchers to fine-tune the questions asked and enhance the questionnaire quality by removing the mistakes and errors found in the questionnaire.

After collecting the data, a reliability test is conducted using the Statistical Package for Social Science (SPSS). Furthermore, Cronbach's Alpha is being adopted to examine the internal reliability of the questionnaire. According to Malhotra (2007), all the variables are reliable when the Cronbach's Alpha value for each variables is greater than 0.6. For this pilot test, the overall Cronbach's alpha is 0.000, therefore it has good internal reliability. Table 3.1 has shown the result of the internal reliability for this pilot test.

Table 3.1: Pilot test Cronbach's alpha for each individual variable

Construct	Cronbach's alpha	Strength of Association	No. of items
Perceived Cost	0.779	Good	3
Performance Expectancy	0.728	Good	3
Effort Expectancy	0.708	Good	3
Self-efficacy	0.727	Good	4
Perceived Security	0.852	Very Good	2
Behavioural Intention	0.770	Good	2

3.4 Construct Measurement

Origins of Construct

The questionnaires used in this study were adapted from Kariuki (2012), Zmijewska, Lawrence and Steele, (2004), Sair and Danish (2018), Oliveira, Thomas, Baptista and Campos (2016), Boonsiritomachai and Pitchayadejanant (2017), Mbogo (2010) and Appiah (2017). Table 3.2 had shown all the questions that will be asked in each variable.

Table 3.2: Table of Constructs

Constructs	No. of Items	Measurement Items	Sources
Perceived Cost	3	The charge imposed by the network providers is low. The cost of upgrading a device/system is low. The transaction cost of using mobile payment is low.	Kariuki (2012) Zmijewska, Lawrence and Steele, (2004)
Performance Expectancy	3	It is convenience to use mobile payment to make transaction. The payment amount transfers instantly. I think that using mobile payment would improve my business.	Sair and Danish (2018) Oliveira, Thomas, Baptista and Campos (2016)
Effort Expectancy	3	The instruction of using mobile payment is clear and understandable. I would find mobile payment is easy to use. Time spent in learning how to operate mobile payment is short.	Oliveira, Thomas, Baptista and Campos (2016)
Self-efficacy	4	I can use mobile payment without any others help. I can use mobile payment by following the manual. I could use mobile payment if someone showed me how to do it first. I could use mobile payment if I have ever used a similar mechanism before.	Boonsiritomachai and Pitchayadejanant (2017)
Perceived Security	2	No chance of losing money through mobile payment. Strong security for all mobile payment.	Mbogo (2010)
Behavioural Intention	2	I intend to use mobile payment. I will continue using mobile payment in the future.	Appiah (2017)

Scale of Measurement

There are four levels of measurement scale take place in the research context, which including nominal, ordinal, interval and ratio. According to Zikmund et al. (2010), nominal scale will assign a value to a particular object. However, the value being assigned does not bring any value to the researcher but only for classification or identification purposes. In this study, nominal scale is being used to develop questions that asking gender and races.

In accordance with Hair, Bush and Ortinau (2002), ordinal scale allows researchers to measure the relative magnitude between the choices for the answer. Additionally, Zikmund et al. (2010) state that ordinal scale are not only identify and classify the variables, but also rank-orders the subject properly. Besides, as compared to nominal scale, ordinal scale is able to provide information that are more precise for researchers (Saunders et al., 2009). In this study, ordinal scale is employed for the question asking the age and educational level.

According to Zikmund et al. (2010), interval scale is a scale of measurement that involves properties of both nominal and ordinal scale. Stevens (1946) states that interval scale is employed to measure a range of value without true zero. In this study, 5-point Likert scale of the interval scale is being used in Section A of the questionnaire to evaluate the degree respondent agree or disagree with the items asked, where Point 1 denotes strongly disagree, Point 2 denotes disagree, Point 3 denotes neither agree nor disagree, Point 4 denotes agree and Point 5 denotes strongly agree.

3.5 Data Processing

Before proceeding to any data analysis, data processing is critical to be taken place after the questionnaires distributed are collected from the respondents. In accordance with Malhorta (2007), data processing includes questionnaire checking, data editing, data coding, data transcribing and data cleaning. According to Hair et al. (2002), the procedures of data processing is also known as data preparation where raw data retrieved from questionnaire will be put into meaningful form that can be processed by the computer software.

Questionnaire Checking

Questionnaire checking process will be carried out after we collect the data from the small amount of respondents during pilot test. Then, checking and identifying process takes place to know whether there are any error in the questionnaire such as the question flow, content, grammar and so on. This is to ensure the quality level of the data is assured and the questions been asked are appropriate and acceptable. After collecting the data from the respondents, the data will be checked repeatedly to detect whether there is any errors or mistakes of the data. Consequently, amendment can be made based on the result of pilot test if there are errors in the questionnaire before distributing the questionnaire to large amount of respondents.

Data Screening

Data screening process comprises of screen out any questionnaire collected that is not valid to be used for the further analysis. For instance, the researchers will remove the questionnaire if the answer provided is not relevant or incomplete. This process is significant to enhance the accuracy of the information as well as to improve the reliability and accuracy of the result.

Data Coding

Data coding is the process where a code will be assigned to each possible for every questions (Malhotra, 2007). The Statistical Package for Social Science (SPSS) software that will be used for data analysis requires researchers to enter numerical data as input to provide assistance in analysing the information. Therefore, data should be standardized and numerically converted. For example, in Section B, the level of agreeability from strongly disagree to strongly agree can be coded as 1 to 5. Besides, in Section B of the questionnaire, male can be coded as 1 while female as 2 for the question of gender.

Data Transcription

Data transcribing is the process where researchers copy all the data from the questionnaire or coding sheet into the computer. In this study, SPSS software will be utilized in transferring the completely coded data to document that data in database form. Then, the transcribed data can be used for future analysis.

3.6 Data Analysis

Descriptive Analysis

According to Zikmund et al. (2010), descriptive analysis is used to describe, summarize, and transform the raw data in way that the researchers can easily understand, evaluate, manipulate and interpret. Moreover, it include the frequency distribution, measures of central tendency (mean, mode and median), and variability (range, variance and standard deviation). In addition, descriptive analysis also provides the descriptive information about the studied population.

Scale Measurement

Scale measurement is used to examine the reliability and validity of the questionnaire. The reliability test helps researchers to determine whether the items measured in each variable of questionnaire are highly related to each other to indicate the internal consistency of the measurement (Malhotra & Peterson, 2006). The reliability test is a measure that indicates the construct stability and consistency of the research instrument measures and it help to examine the “goodness” of measure (Zikmund, 2003). Cronbach’s alpha is the most commonly applied estimate of a multiple item scale’s reliability, and used to determine the internal consistency. The reliability coefficient varies from 0 to 1 (Malhotra, 2007). The higher the coefficient value, the more consistent and reliable result yielded. If the alpha is greater than 0.95, items should be inspected to ensure they measure the concepts from different aspects.

Table 3.3: Rule of Thumb of Cronbach’s Alpha Coefficient Size

Coefficient Range	Strength of Association
< 0.6	Poor
0.6 to < 0.7	Moderate
0.7 to < 0.8	Good
0.8 to < 0.9	Very Good
> 0.9	Excellent

Source: Hair, Babin, Money, & Samouel (2003). Essential of business research methods. United States, Leyh Publishing.

Inferential Analysis

Inferential analysis is used to determine whether the hypotheses are substantiated (Saunders et al., 2009). In other words, inferential analysis makes judgments or inferences about the population using the sample. In this study, SPSS is used to conduct the analysis which is Multiple Regression Analysis.

Multiple regression analysis is a statistical technique which used to analyse the linear relationship between a dependent variable and multiple independent variables by estimating the standard coefficients (β) for the equation for a straight line (Hair et al., 2003). Besides that, this technique helps researchers to understand and determine which independent variables have significant impact on dependent variable. Multiple regression analysis is appropriate to be used when the dependent variable and independent variables can be measured by using same scale (Saunders et al., 2009).

In this study, multiple regression analysis enables researcher to identify the most significant independent variable that will affect the sellers' willingness to adopt mobile payment for their business in Klang Valley. In addition, researchers can use the computed R square to measure the proportion of dependent variable can be explained by several independent variables (Saunders et al., 2012). In this study, researchers measure the proportion of behavioural intention that can be explained by perceived cost, performance expectancy, effort expectancy, self-efficacy and perceived security.

$$\text{Equation: } BI = a + \beta_1 PC + \beta_2 PE + \beta_3 EE + \beta_4 SE + \beta_5 PS$$

Whereby,

BI= Behavioural Intention

PC= Perceived Cost

PE= Performance Expectancy

EE= Effort Expectancy

SE= Self-efficacy

PS= Perceived Security

In addition, researchers can use the computed R square to measure the proportion of dependent variable can be explained by several independent variables (Saunders et al., 2012). In this study, researchers measure the proportion of behavioural intention that can be explained by perceived cost, performance expectancy, effort expectancy, self-efficacy and perceived security.

3.7 Conclusion

This chapter has illustrated an overview of the methodology used in this study, which including research design, sampling design, research instrument, construct measurement, data processing and data analysis. Besides, this chapter has also included the pilot test that used to examine the internal reliability of the questionnaire, and thereby enhance the reliability, validity and accuracy of this study.

CHAPTER 4

DATA ANALYSIS

4.0 Introduction

In this chapter, the data collected from the respondents will be analysed using SPSS. The descriptive analysis, inferential analysis and cross tabulation analysis will be covered in this chapter. In addition, all the results generated will be presented in the forms of charts and tables.

4.1 Descriptive Analysis

In this study, 130 questionnaires has been distributed and only 118 questionnaires are collected from the respondents, therefore the response rate is 0.9077. Out of these 118 respondents, 15 respondents are not qualified to continue answering the questionnaire as they do not using smartphone or possessing the basic understanding about mobile payment, and therefore only 103 of them are qualified to be proceed the survey conducted. This also means that only 86.44% of the questionnaires collected could be used for the subsequent analysis.

Table 4.1: Percentage of Respondents Using Mobile Payment for
Businesses

	Frequency	Percentage (%)
No	33	32
Yes	70	68

Table 4.1 above has shown the proportion of respondents who do use and do not use mobile payment for their businesses. Among these 103 respondents, only 70 (68%) respondents are using mobile payment for their businesses. While the remaining 33 (32%) of them do not utilize mobile payment for their businesses.

Respondents' Profile

Table 4.2: Respondents' Profile

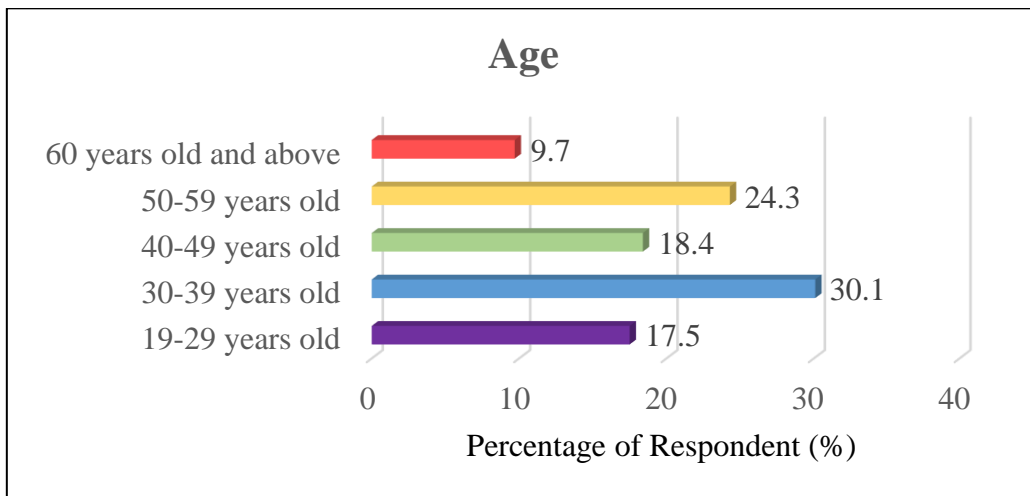
Gender	Frequency	Percentage (%)
Male	71	68.90
Female	32	31.10
Races	Frequency	Percentage (%)
Malay	13	12.60
Chinese	78	75.70
Indian	11	10.70
Others	1	1.00

Table 4.2 above shows the profile of respondents who involved in the survey. Among these 103 respondents, male respondents have contributed a higher proportion than female respondents, where 71 (68.90%) of them are male, while female has contributed to the remaining 32 (31.10%) of the total respondents.

On the other hand, the Chinese respondents has accounted for the highest proportion among the 103 respondents, which is 78 (75.70%) respondents of the overall sample. Next, there are 13 Malay respondents who have made up 12.60% of the total sample. Subsequently, there are 11 (10.70%) Indian respondents have involved in this survey. Lastly, the lowest proportion has been made up by 1 (1.00%) respondent who is from other races.

Age

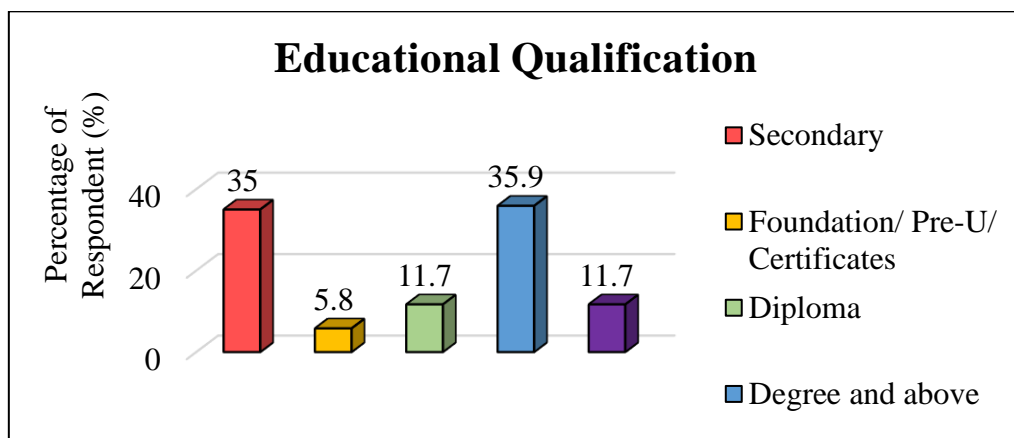
Figure 4.1: Age



According to the Figure 4.1, most of the respondents are from the age group between 30 to 39 years old, which consist of 31 (30.10%) respondents. Subsequently, there are 25 (24.30%) respondents who involve in this survey are aged between 50 to 59 years old. Moreover, the number of respondents in this study who aged between 19 to 29 years old and between 40 to 49 years old are 18 (17.50%) and 19 (18.40%) respectively. Lastly, the lowest proportion has been contributed by 10 (9.70%) respondents who aged 60 years old and above.

Educational Qualification

Figure 4.2: Educational Qualification



In accordance to Figure 4.2 above, the respondents who hold Bachelor Degree and above has accounted for the highest proportion among the 103 respondents, that is 37 (35.90%) respondents. Furthermore, there are 36 respondents who having secondary education qualification have made up 35% of the overall sample. Moreover, both Diploma holders and respondents with other academic qualification have each contribute 11.70% of the sample. Finally, there are 6 (5.80%) respondents who involved in this survey are holding foundation, Pre-U and Certificate educational qualification.

Table 4.3: Descriptive Statistics

	N	Sum	Mean	Std. Deviation
PC	103	358.6667	3.482201	.7608793
PE	103	427.6666	4.152103	.5022338
EE	103	415.3334	4.032363	.6993820
SE	103	413.5000	4.014563	.6955965
PS	103	336.0000	3.262136	.9518935

Table 4.3 has shown the descriptive statistics of perceived cost (PC), performance expectancy (PE), effort expectancy (EE), self-efficacy (SE) and perceived security. Moreover, all these constructs have been assessed through a 5-point Likert scale that ranging from 1 which indicates “strongly disagree” to 5 which means “strongly agree”.

Based on the Table 4.3, performance expectancy has the highest mean of 4.1521 among all the constructs. This indicate that the average level of agreement on performance expectancy is more toward “Agree”. Subsequently, it is closely followed by effort expectancy, self-efficacy and perceived cost, by the means of 4.0324, 4.0146 and 3.4822 respectively. This indicates that these 3 constructs have the average level of agreement that is more toward “Agree”. Lastly, perceived security has the lowest mean which is 3.4822, and this shows that the average level of agreement on perceived security is more toward “Neutral”.

In addition, standard deviation is used to measure the amount of dispersion of the data set (Malhotra, 2010). According to the Table 4.3, perceived security has the highest standard deviation which is 0.9519 and this means that the data gathered for perceived security are greatly dispersed from its mean. Subsequently, the standard deviation of performance expectancy is 0.7609. Next, the standard deviations of effort expectancy and self-efficacy are similar, which are 0.6994 and 0.6956 respectively. Last but not least, performance expectancy has the lowest standard deviation with 0.5022, and this indicate that the data collected for performance expectancy is the least dispersed from its mean.

4.3 Inferential Analysis

Table 4.4: Model Summary

	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.788a	.621	.601	.5167990

a. Predictors: (Constant), PS, PE, EE, PC, SE

According to the model summary shown in Table 4.4, the Adjusted R Square for the model of this study is 0.601. This indicate that 60.10% of the variance of dependent variable which is behavioural intention can be explained by the variances of the independent variables which including perceived cost, performance expectancy, effort expectancy, self-efficacy and perceived risk. Meanwhile, this also showing that the remaining 39.90% of the variances of behavioural intention are explained by the unknown factors.

Table 4.5: ANOVA^a

	Sum of Squares	df	Mean Square	F	Sig.
Regression	42.438	5	8.488	31.779	.000 ^b
Residual	25.907	97	.267		
Total	68.345	102			

a. Dependent Variable: BI

b. Predictors: (Constant), PS, PE, EE, PC, SE

As shown in the Table 4.5, the F value of 31.779 with a p-value of 0.000 which is less than 0.05, therefore the fitness of model for this study is confirmed. Additionally, the regression model indicates that 5 independent variables (perceived cost, performance expectancy, effort expectancy, self-efficacy and perceived risk) work well in explaining the variation in dependent variable (behavioural intention).

Multicollinearity refers to how strong are the independent within a model are correlated. There is an issue in multiple regression when one or more independent variables are greatly correlated to one or more of the other independent variables (Schroeder, 1990). Additionally, researchers can utilize variance inflation factors (VIF) which is the most reliable way in examining the multicollinearity. As shown in Table 4.6, the VIF values of perceived cost, performance expectancy, effort expectancy, self-efficacy and perceived security are 1.620, 1.557, 2.436, 3.004 and 1.630 respectively, which are lower than 5. Therefore, these explain that there is no multicollinearity issue in among all 5 independent variables.

Table 4.6: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.264	.443		-.596	.553		
PC	.318	.086	.296	3.721	.000	.617	1.620
PE	.093	.127	.057	.730	.467	.642	1.557
EE	.330	.114	.282	2.894	.005	.410	2.436
SE	.263	.127	.223	2.060	.042	.333	3.004
PS	.105	.069	.122	1.535	.128	.614	1.630

a. Dependent Variable: BI

Table 4.7: One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
PC	6.432	102	.000	.4822010	.333495	.630907
PE	23.281	102	.000	1.1521029	1.053947	1.250259
EE	14.981	102	.000	1.0323631	.895676	1.169050
SE	14.803	102	.000	1.0145631	.878616	1.150510
PS	2.795	102	.006	.2621359	.076098	.448174

Based on the Table 4.8, the linear equation as shown as below is formed:

$$BI = -0.264 + 0.318PC + 0.093PE + 0.330EE + 0.263SE + 0.105PS$$

Perceived Cost (PC)

According to Table 4.6 and 4.7, the regression coefficient of perceived cost is 0.318 and the p-value is 0.000, hence H_{01} is rejected and there is sufficient evidence to conclude that there is a positive significant relationship between perceived cost and sellers' intention to adopt mobile payment. Moreover, this means that the

behavioural intention will increase 0.318 units when perceived cost increase 1 unit while others remain constant. In simple word, lower cost will encourage the sellers' willingness to adopt mobile payment for their businesses.

According to Amberg (2003), perceived cost is a critical factor to analyse the mobile services acceptance. Besides, the result of this study is consistent to and supported by the results from previous studies done by Mbogo (2010), where the perceived cost is positively correlated to the behavioural intention to use the mobile payment. This indicate that the lower the cost incurred, the greater the intention by sellers to adopt the mobile payment. In this current study, the target respondents are sellers of small businesses, therefore cost is generally their main concern when they make the decision either to or not to utilize mobile payment for their own businesses. This is because the capital and financial resources allocated for their businesses is usually limited. If the costs to adopt innovation and new technology are considered high, sellers will less or not intend to adopt it as they concern that the increased expenses incurred on the initial and continuous adoption cost will affect their profitability. On the other hand, if the adoption and transaction costs incurred are low and affordable, users and sellers will be more willing to adopt mobile payment, and this statement has been supported by the previous studies of Pousttchi (2003) and Van der Heijden (2002).

When the researchers conducting the survey, they found a situation that there are some of the sellers will first ask them whether the survey will incur any cost when the researchers try to approach them. Here showing that the cost is relatively a great concern of sellers from small businesses. Moreover, researchers also found that there are some sellers who only concern about profitability are not willing to take the initiative in adopting mobile payment for their businesses, as they think that the charge imposed by the network providers will increase the operating costs. On the other hand, there are some sellers who have adopted mobile payment for their businesses think that the cost incurred though the usage of mobile payment is considered affordable as they believe that the benefits brought through the usage of mobile payment will offset the costs incurred.

Performance Expectancy (PE)

Based on the Table 4.6 and 4.7, the regression coefficient of performance expectancy is 0.093 while the p-value is 0.000, hence H_{02} is rejected and there is sufficient evidence to conclude that performance expectancy has a positive significant relationship to behavioural intention. Besides, this indicates that each unit increase in performance expectancy will contribute to 0.093 units increase in behavioural intention while all the other independent variables remain constant.

In accordance with Martins et al. (2014), performance expectancy is an important factor used in examining the users' intention to adopt internet banking. Moreover, based on the research done by Abushanab and Pearson (2007), it is also found that users' willingness to adopt internet banking is greatly influenced by performance expectancy. Besides that, the result of this study is found to be consistent to and could supported by the results from previous studies done by Shaikh & Karjaluoto (2015), Venkatesh et al. (2012), and Kim et al. (2010), where the performance expectancy is positively correlated to the behavioural intention . This means that the users will have positive attitude or greater intention to adopt mobile payment if it will bring better outcome and performance to their businesses. Besides, this can be further supported by Zhou et al. (2010) which state that the performance enhancement including convenient payment, fast response and service effectiveness will make sellers more willing to accept internet banking.

Respondents of this study who have adopted the mobile payment for their businesses state that the usage of mobile payment in performing transactions is much more convenient and time saving as compared to the conventional payment methods such as cheque and automated teller machine (ATM). They also added that the payment amount can be transferred instantly via the usage of mobile payment, while the transaction made through conventional payment methods may take more than 1 day. Moreover, there are 2 sellers who are from retail and F&B industries also reflect that they prefer to make transactions via mobile payment rather than the usage of cheques, because much time are consumed to issue cheques, especially during festive seasons as they have to deal with many suppliers. From the survey conducted, we found that most of the sellers who have adopted and who have the

intention to use mobile payment for their businesses are driven by the relative advantage provided by the mobile payment. Hence, these evidences have also supported that there is a positive relationship between performance expectancy and behavioural intention.

Effort Expectancy (EE)

In accordance with Table 4.6 and 4.7, the regression coefficient of effort expectancy is 0.330 while the p-value is 0.000, hence H_{03} is rejected and there is sufficient evidence to conclude that that effort expectancy has a positive significant relationship to behavioural intention. This also indicates that behavioural intention will increase by 0.330 units for each additional 1 unit increase in effort expectancy when other independent variables remain constant.

According to Gu, Lee and Suh (2009), effort expectancy is a key factor in studying the users' intention to adopt new technology. In this current study, the result generated is consistent and supported by the results from the previous studies done by Moore & Benbasat (1991), Thompson, Higgins, & Howell (1991) and Zhou et al. (2010) which have shown that the effort expectancy is positively related to the users' intention to adopt new technology. In other word, this mean that users will be more willing to use mobile payment when less efforts are required to learn how to operate and when the instructions provided are clear and easy to be understood. On the other hand, if the new technology is complicated and require a lot of effort and time in understanding and learning it, this will deliberately reduce the willingness of sellers to take the initiative to adopt the mobile payment for their businesses.

While having conversations with the sellers who have involved in this survey, most of them have reflected that they will be more willing to adopt the mobile payment if performing transactions using mobile phone is easier and the tutorials or guidance provided by the mobile payment service providers are clear and understandable. Besides, some sellers also state that if the mobile payment is not user-friendly and require, sellers may need to spend time and costs on training and making their

workers familiar to the functions of mobile payment. Hence, this additional costs will then reduce the willingness of sellers to adopt mobile payment for their businesses.

Self-Efficacy (SE)

Based on the Table 4.6 and 4.7, the regression coefficient of self-efficacy is 0.263 while the p-value is 0.000, hence H_{04} is rejected and there is sufficient evidence to conclude that there is a positive significant relationship between self-efficacy and sellers' intention to adopt mobile payment. In addition, this means that the behavioural intention will increase 0.263 units for each additional 1 unit increase in self-efficacy while others remain constant.

In accordance with Venkatesh et al. (2012), Boonsiritomachai and Pitchayadejanant (2017), self-efficacy is an important construct in determining the users' ability to complete a task by using technology. Besides, Dasguptaa, Paul and Fuloria (2011) also added that self-efficacy has been confirmed as one of the factors that can affect users' intention to adopt mobile banking. In addition, the result generated by this study is consistent to results of some researches done by Dasguptaa et al. (2011), Hill, Smith & Mann (1986) and Luarn and Lin (2005), which shown that the self-efficacy is positively correlated to users' intention. This means that the greater the self-efficacy, the greater the sellers' intention to use mobile payment for their businesses. Moreover, this can also be further supported by Chan and Lu (2004) that state that user tend to have greater confidence when the functions and features of the technology is easy to be used.

Table 4.8: Results of Self-efficacy estimation

Measurement Items	Mean
SE1: I can use mobile payment without any others help.	3.90
SE2: I can use mobile payment by following the manual.	3.99
SE3: I could use mobile payment if someone showed me how to do it first.	4.11
SE4: I could use mobile payment if I have ever used a similar mechanism before.	4.06

According to the Table 4.8, the item SE3 and SE4 have shown higher means among all the items used to measure the self-efficacy, which are 4.11 and 4.06 respectively. This indicate that sellers agree that they could use the mobile payment if someone shows them how to use and if they possess the experiences gained from usage of similar mobile payment mechanisms. In accordance with Bandura (1986), self-efficacy can be developed by one's experiences. Moreover, Burton-Jones and Hubona (2006) also added that users tend to have higher intention when they have involved in more several of innovation and having experiences. In short, the possession of previous experiences could significantly contribute to the increased self-efficacy, and thereby improving the sellers' intention to adopt mobile payment. On the other hand, if the sellers do not possess the sufficient ability in performing transaction using mobile payment, this may cause some mistakes such as transferring the wrong amount,

Perceived Security (PS)

Based on the Table 4.6 and 4.7, the regression coefficient of performance expectancy is 0.105 while the p-value is 0.000, hence H_0 is rejected and there is sufficient evidence to conclude that perceived security has a positive significant relationship to behavioural intention. This also means that when 1 unit increase in perceived security while others remain constant, 0.105 units of behavioural intention will also being increased.

According to Mbogo (2010), the security and safety of making transactions through mobile payment are the main concern for users. Security in online payment means that the perceived risk involved in the transaction that carried out by buyer and seller is minimized, and the transaction information will be kept confidential (Van der Heijden, 2002). Additionally, the result of this study has shown that perceived security is positively correlated to behavioural intention, and this is consistent to the result from the previous research done by Schierz, Schilke and Wirtz (2010). In other word, increase the level of security will increase the intention of sellers to adopt mobile payment for their businesses. Moreover, this can be further supported by research done by Mallat (2007) which state that the perceived security and trust in both vendors and payment system that able to protect the transaction is critical to boost the users' intention to use mobile payment.

Based on the previous researches done by Laforet and Li (2005) and Rotchanakitumnuai and Speece (2003), security is found to be a necessary factor to encourage both Chinese and Thailand users to adopt mobile services. This is because security in China and Thailand consider low, so the users emphasized on security policy when they accept the mobile payment service. Similarly, through the survey conducted, researchers also found that Malaysian merchants view security as important factor to adopt mobile payment, thereby result the positive relationship. In current situation, majority retailers still demand cash in their daily operation (Marketing Magazine, 2017) because they think receiving cash is instant and less risky for not getting paid when use credit card and cheque. These risks they worried will lead them not accept other payment types but cash. This can be supported by the research done by Baeur et al. (2005) that reveal users are not willing to adopt mobile payment even though it bring a lot of benefit to them, because mobile payment method usually associated with great potential to lose privacy, personal information and transaction. On the other hand, some sellers share that the increased social issues and security such as robbery cases have also alert them to reduce the paper instrument usage and encourage them to move forward cashless payment by adopting mobile payment.

Multicollinearity refers to how strong are the independent within a model are correlated. There is an issue in multiple regression when one or more independent variables are greatly correlated to one or more of the other independent variables (Schroeder, 1990). Additionally, researchers can utilize variance inflation factors (VIF) which is the most reliable way in examining the multicollinearity. As shown in Table 4.6, the VIF values of perceived cost, performance expectancy, effort expectancy, self-efficacy and perceived security are 1.620, 1.557, 2.436, 3.004 and 1.630 respectively, which are lower than 5. Therefore, these explain that there is no multicollinearity issue in among all 5 independent variables.

Cross Tabulation

Table 4.9: Relationship between Age and Intention to Adopt Mobile Payment

Age	Intention to Adopt Mobile Payment				Total
	Disagree	Neither agree nor disagree	Agree	Strongly agree	
19-29 years old	0	0	10	8	18
30-39 years old	1	1	21	8	31
40-49 years old	1	1	13	4	19
50-59 years old	2	6	13	4	25
60 years old and above	4	1	4	1	10
Total	8	9	61	25	103

According to table 4.8, there are more than 83% respondents have intention to adopt mobile payment. Among these respondents who have intention to adopt, the age group in 30 to 39 years old has ranked the top which has the highest portion of people have the intention to adopt mobile payment with 34%, follow by 19-29 years old (21%), then 40-49 years old and 50-59 years old age group with 20% respectively. The least portion of people who have intention to adopt is fall in age group of 60 years old and above which only have 6%. This indicate that the younger the age, the higher the intention to adopt mobile payment. This is because, younger generations are more technology savvy and not reluctant to try new technology. Weinberg (2004) concludes that the ability to learn computer decline as the age

increased. This is the reason that elders will have lesser intention to use as they do not want to learn how to use mobile payment. This has confirmed the finding of self-efficacy is significant as elders think they are not able to learn so they have lesser intention.

Besides, Meyer (2008) also finds out firms which have high portion of younger employees will have higher intention to adopt new technology than firms which have portion of older employees. This has implied that younger employees are more likely to use new technology to solve business problem to enhance the productivity, however older employees have not willing to use new technology to assist their works due to they get used to the standardise work and not willing to accept new technology due to they feel difficult to learn. This has concluded the table 4.8, which the age group with 60 years old and above has the least portion who have intention.

Table 4.10: Relationship between Education Level and Intention to Adopt Mobile Payment

Education Level	Intention to Adopt Mobile Payment				Total
	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Secondary	4	4	22	6	36
Foundation/ Pre-U/ Certificates	0	0	6	0	6
Diploma	1	0	8	3	12
Degree and above	1	1	20	15	37
Others	2	4	5	1	12
Total	8	9	61	25	103

Table 4.11: Relationship between Age and Education Level who have intention to adopt mobile payment

Age	Education Level					Total
	Secondary	Foundation/ Pre-U/ Certificate	Diploma	Degree and above	Others	
19-29 years old	5	0	4	9	0	18
30-39 years old	11	2	5	13	0	31
40-49 years old	11	0	1	7	0	19
50-59 years old	8	3	1	5	8	25
60 years old and above	1	1	1	3	4	10
Total	36	6	12	37	12	103

Table 4.9 shows the relationship between education level and the intention to adopt mobile payment. Based on table 4.9, it shows that business owners who hold degree and above have the largest portion which willing to adopt mobile payment at 41%. Follow by business owner who completed secondary level at 33%, Diploma (13%), and have the least portion who have intention to adopt mobile payment (7%) is others, includes respondents who only have primary education qualification. This has implied the higher the level of education level, the higher the intention of adopt mobile payment. Riddell and Song (2012) also conclude that education level has positively and significantly influence the people to use new technology as people who have more educated is more likely to use technology to complete task. This indicates that people who have higher education level are more knowledgeable to master new technology and have higher chance to use such technology as discussed in Riddell and Song's (2012) study that employees with higher education qualification have longer working experience in using computer than employees with lower education qualification. Due to people have higher education level received additional education therefore they have more capable to use new technology so they have higher intention.

However, researchers also notice secondary education qualification ranked second largest portion of people who have intention as compare to diploma and certificate holder. Hence, researchers look detail into the information of education level compare to age as shown in table 4.10. Researchers find out among all these business owners who have secondary education qualification are majority from age group in 30-39 years old and 40-49 years old. These age old are categorised as generation X, as Generation X born between 1961 and 1981 (Oblinger & Oblinger, 2005). Thus, they are well aware of internet and technology, meaning that, they have enough knowledge to use these technologies such as mobile phone, computer, internet and others. Schaffhauser (2010) also says the Generation X and Generation Y are more technology savvy and also cannot live and complete task without a computer. This is because they live when the internet and computer are commonly and widely used. So they have better chance to learn how to use these technologies during schooling and also working as internet has been commonly implemented. Base on the experience they have gained, will greater their self-efficacy so they have more ability to use technology and have more willingness. Therefore, in this study, researchers find not only education level have positively affect intention but also the age that has discussed in table 4.8.

4.4 Conclusion

This chapter has concluded the target respondents' demographic profiles for this study that were being analysed through descriptive analysis. Besides, multiple linear regression has also been used for inferential analysis to determine whether or not the independent variables are significantly and positively or negatively affect the dependent variable.

CHAPTER 5

CONCLUSION

5.0 Introduction

This chapter will provide a summary of the finding about the previous chapter. This chapter also discuss the managerial implication to management and policy maker and also discuss the limitation, recommendation of this study and conclusion.

5.1 Summary of Findings

This study attempts to investigate the factors that affect the sellers' intention to adopt mobile payment. In addition, the researchers have distributed questionnaires to 130 sellers of microbusinesses in Klang Valley. As a result, this study finds that perceived cost, performance expectancy, effort expectancy, self-efficacy and perceived security are positively and significantly affect the sellers' intention to adopt mobile payment. These results are consistent with the findings of most of the literatures.

5.2 Managerial Implication

This research has contributed the overview perception of sellers to use mobile payment in their business. From this research, one thing has been highlighted which is Malaysians are aware of mobile payment, however the usage rate is comparatively lower than other countries because lesser merchants are willing to use mobile payment.

Mobile Payment Provider

Mobile payment provider can develop some plans for merchants or retailers in order to encourage them to adopt the service they offered. Retailers will not adopt this service because accepting mobile payment will incur cost such as change the point-of-sale systems and the cost to train the staff to use (Nuckles, 2018). Mobile payment providers firstly have to develop some packages for merchants to reduce merchant's cost of operating because perceived cost has been found as the significant factor that affect merchant to adopt mobile payment

The mobile payment providers should optimize the function of own mobile payment tool in order to bring greater benefits to merchants that can attract merchant to accept mobile payment service. Mobile payment provider can provide free training course for first time user and also help the merchants to install the machine use to perform mobile payment in the shop. These activities called after sale supporting activities and supporting activities will increase customer satisfaction and implicit confident while using a new product hence, customers are more willing to purchase the product or service (Shaharudrn, Yusof, Elias & Mansor, 2009). This technical support provided by the mobile payment provider is important to reduce the merchants' daily operation problem while using the mobile payment. If the technical problem cannot be solved effectively, the meaningful of using mobile payment to increase operation efficiency is minimised. Therefore, mobile payment providers should provide the technical support service to merchant in order to help the merchants to solve all the doubts in order to support the business to facilitate tasks. This study concludes that effort expectancy and self-efficacy has positively significant influence on sellers' intention to adopt mobile payment, hence mobile payment providers should design the simplest and user friendly application to lessen the learning process. This study also finds out if the owners think they need to spend more time to learn and need someone else to show the way to perform only they are willing to use. Therefore, mobile payment provider can send trainer to the physical store to educate the business owner and the staffs to use the mobile payment

Based on the information that researchers collected, many shop owners think that the cost charge by the mobile payment providers is high. In other words, the shop owners think it is expensive to use mobile payment and increase their business expenses. However, according to some shop owners who already adopted mobile payment service mentioned that 'Boost' and 'TNG e-wallet' are cheap and no registration fee. There is a misconception among the sellers' perception which incur huge cost to use the mobile payment services. So, the mobile payment provider should come out more promotion activities to increase the usage and adoption of merchants. The mobile payment providers can send their staffs to the shop doorstep to explain the service they offer. Recent year, these mobile payment providers have aggressively promoted their service to consumers which always provide some promotions to consumers who use their application to pay in certain restaurant and allow them to redeem free drink or food. Hence, there are many consumer subscribers but low adopt rate of merchant side. In addition, the mobile payment provider should also provide some promotion to merchants. They can offer peer recommendation campaign which provide certain benefit to the merchant that helps the provider to gain the merchant usage. Not only that, the mobile payment provider can advertise on the business association such as SME Association of Malaysia, Malaysia Retailers Association and Business Council, to increase the awareness of business to use mobile payment. In addition, the mobile payment providers can organise workshops, talks or seminar through those business associations and Business Council to educate the business owners about the benefit to use mobile payment in the business and hence correct the misunderstanding. This approach is easier for mobile payment provider to reach business.

Network Service Provider

The internet service providers should increase the internet speed to reduce the congestion while everyone perform mobile transaction. If the transactions do not proceed due to the poor internet connection may lose the performance of mobile payment. Meanwhile, the internet service providers should reduce the business rate of internet subscription. This study also finds out the cost charge by the network service provider will affect the merchant to adopt mobile payment. Therefore, network providers not only reduce the rate of household internet rate to increase the

internet coverage in Malaysia but also business. As reported by the Star Media Group Berhad (2019), the network providers have increased the internet speed and price of broadband has reduced by 30% in Malaysia. However, there is no action to reduce the price for business to subscribe the internet service. The internet is important for business as e-commerce is increasingly popular in Malaysia. The businesses who are reluctant to subscribe internet in their business may cause them cannot keep pace to the global e-commerce trend then lead to Malaysia loses of advantage. While the cost of internet service is reduced, then the cost of business to operate is reduced as well. Hence, the merchants are more willing to adopt the mobile payment service as the supportive devices are relatively cheap.

Government

Government plays an important role in many aspects. Firstly, the government should control the competition of both service providers. Government have to monitor the competition among the industry to minimize the monopoly and collusion. Government ensure the market of mobile payment provider and network service provider is competitive in order to maintain the competitive price to consumers. Therefore, merchants can use the service in a reasonable price.

This study also recommends government to develop some policies to enhance security measure. No matter consumers or sellers, they both concern with security issues such as lose of information, money and fraud. Hence, bank institution are well governed by the central bank, Bank Negera Malaysia and the banks should comply with the rules and regulation set by the government such as Central Bank of Malaysia Act 2009, Financial Services Act 2013, Anti-Money Laundering, Anti-Terrorism Financing and Proceeds of Unlawful Activities Act 2001, Money Services Business Act 2011 and others. Hence, mobile payment developed by the bank institutions are well controlled and monitored. However, there are many other third party mobile payment platforms such as WeChat Pay, Boost, Alipay, Fave Pay and others, which has lesser regulations to monitor. The third party payment platforms have bypassed the central bank's clearing system which may occur many security issues.

Security is found as one of the main factor to affect the sellers' intention to adopt mobile payment service. Thus the government can design a comprehensive legal framework to monitor this new sector to enhance the security to make businesses to feel at ease. For example, in China, Central Bank announced that starting from 30 June 2018, all online payment and mobile payment transactions have to use Wanglian, a real-time monitor. The payment data executed via third party payment company will send to Wanglian to control the financial risks and improve the transparency of third party payment market to eliminate money laundering, cashing out problems and stealing (Eva, 2019). This agency will help to enhance the security of transaction and security will be guaranteed. Similarly, Malaysian Government can establish one agency to monitor all online payment and mobile payment, and thereby enhance the security and safety of mobile payment mechanisms. Hence, increased security can therefore boost the sellers' intention to adopt mobile payment for their businesses.

5.3 Limitation of Study

There are few limitations when this research is conducted and it is important to report and understand. This is because, these limitations can help future researchers to design better research method. Firstly, the samples size collected is relatively small due to the time and budget constrain. This study is given a time frame of six months to complete, there is not enough time to allow researchers to collect geographically wider data. Besides, due to the limited budget, it is insufficient budget and time for researchers to travel further to collect the information. Due to time and budget constrain, researchers can only focus their study in Klang Valley area and approach those shop owners who are readily available that can be reached easily. Moreover, this research is conducted to investigate seller perception, because of the limited time, researchers are not able to go for many shops as all data are collected by face to face survey.

Furthermore, the respondents are not willing to participate the survey. As the data are collected through face to face survey, some shop owners are not willing to participate as they think it is wasting their time and some shop owners worry to disclose their business information. Hence, it has been an obstruct for researchers to collect data. In addition, due to some of the respondents are not well educated, researchers have to explain in detail during face to face survey according to the different ethnics use different languages and hence delay the process.

5.4 Recommendation for Future Research

There are some recommendations researchers proposed for future study which increase the sampling size and wider geographical area in order to better represent the population. The larger the covered geographic area, the more reliable the results. Hence, future researchers can conduct research which includes rural and urban area. This is because, this study conduct in Klang Valley which majority respondents are well aware of technology however rural area may not have such information and less popular so even acceptance is high in urban area does mean will have same result in rural area. Therefore, future researchers can consider to study rural area of the intention to adopt such service.

Furthermore, there are few studies conducted in Malaysia to investigate the sellers' intention to use mobile payment. Hence, future researchers are suggested to further study in Malaysia context with more specific business field. The future researchers can study according to the type of business for example retail, restaurant, hotel, healthcare and others, to determine the perception and intention of each type of business owners to accept mobile payment. Besides, future researchers can consider other variables and models in examine sellers' intention to adopt mobile payment because there are limited researches conducted to study seller intention, and there are insufficient models and variables to fit Malaysia context.

Moreover, future researchers can use longitudinal research in order to collect accurate and latest data. This research design allows future researchers to investigate the changes over time as technology change quickly. Hence, the future researchers can use longitudinal research to study the changes at different point of the technology development and further explore the reason of the shifts happen.

5.5 Conclusion

In this study, the objectives have been achieved to identify the factors that affect sellers' intention to adopt mobile payment. Based on the finding and discussion on previous chapter, it has found some implications for several parties such mobile payment providers, network service providers and government. The information helps those parties to develop their policies in order to increase the adoption rate among the merchants. However, there are some limitations for this study have to be paid attention in future study. Hence, lastly has provided the recommendations to help future researchers to present more comprehensive study.

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Appendices

Appendix A: Questionnaire



Universiti Tunku Abdul Rahman

Faculty of Accountancy and Management

Bachelor of International Business (HONS)

Dear Respondents:

We are students from Universiti Tunku Abdul Rahman (UTAR) who pursuing Bachelor Degree of International Business (Hons). Currently, we are conducting a research project as a partial fulfilment of the requirement of our degree program. The **objective** of this research project is to study the factors that affecting the intention of sellers in adopting mobile payment. This questionnaire is mainly consisted of 2 sections. Before proceed to the section A of this questionnaire, there are 5 qualifying questions. In section A, questions are set to evaluate the factors affecting the sellers' intention to adopt mobile payment in Klang Valley Context. In section B, the questions set are about respondents' demographic profiles. Your participation in this study is voluntary. You will not experience any penalty or loss of benefits if you decide not to participate in this study. Even if you decide to participate, you may also subsequently change your mind and stop your participation in this study. We would like to inform that your participation in this study is highly appreciated. Besides that, all information that you have provided for this study will be kept **PRIVATE** and **CONFIDENTIAL**, and only used solely for academic purposes. Thank you for your cooperation and contribution in this study.

Prepared by,

Student Name	Student ID
Chew Zheng Hui	16UKB03462
Tiang Ming Jie	16UKB03406

Qualifying Question:

1. Are you using a smartphone?

Yes

No

2. Have you heard about mobile payment (e.g.: Maybank MY, Hong Leong Connect Mobile Banking, Grab Pay, WeChat Pay, Boost app)

Yes

No

3. Do you use mobile payment for your business?

Yes, please specify:_____

No

Section A: Evaluate the factors affecting the sellers' intention to adopt mobile payment in Klang Valley Context.

In this section, we would like to seek for your opinion regarding the factors that influencing the sellers' intention to adopt mobile payment in Klang Valley. Please indicate the extent to which you agreed or disagreed with each statement using 5 point Likert scale.

(1) = Strongly Disagree	(2) = Disagree	(3) = Neither agree nor disagree
(4) = Agree	(5) = Strongly Agree	

Please answer and circle only **one** number per line to indicate the extent to which you agreed or disagreed with the following statements.

1. Perceived Cost

Items	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a. The charge imposed by the network providers is low.	1	2	3	4	5
b. The cost of upgrading a device/system is low.	1	2	3	4	5
c. The transaction cost of using mobile payment is low.	1	2	3	4	5

2. Performance expectancy

Items	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a. It is convenient to use mobile payment to make transaction.	1	2	3	4	5
b. The payment amount transfers instantly.	1	2	3	4	5
c. I think that using mobile payment would improve my business.	1	2	3	4	5

3. Effort expectancy

Items	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a. The instruction of using mobile payment is clear and understandable.	1	2	3	4	5
b. I would find mobile payment is easy to use.	1	2	3	4	5
c. Time spent in learning how to operate mobile payment is short.	1	2	3	4	5

4. Self-efficacy

Items	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a. I can use mobile payment without any others help.	1	2	3	4	5
b. I can use mobile payment by following the manual.	1	2	3	4	5
c. I could use mobile payment if someone showed me how to do it first.	1	2	3	4	5
d. I could use mobile payment if I have ever used a similar application before.	1	2	3	4	5

5. Perceived security

Items	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a. No chance of losing money through mobile payment.	1	2	3	4	5
b. Strong security for all mobile payment.	1	2	3	4	5

6. Behavioural Intention

Items	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a. I intend to use mobile payment.	1	2	3	4	5
b. I will continue using mobile payment in the future.	1	2	3	4	5

Section B: Demographic Profile

In this section, we are interested in your background in brief. Your answer will be kept strictly confidential.

1. Gender:

Male

Female

2. Age:

Below 18 years old

40-49 years old

19-29 years old

50-59 years old

30-39 years old

60 years old and above

3. Races:

Malay

Chinese

Indian

Others (Please Specify) _____

4. Educational Qualification:

Secondary

Degree and above

Foundation/ Pre-U/
Certificates

Others (Please Specify)

Diploma

5. Sales amount (transaction) per day.

6. Types of business:

Appendix B: Pilot Test

Reliability Test

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.796	.814	6

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
PC	18.35	5.745	.513	.534	.779
PE	17.78	5.996	.745	.858	.728
EE	17.95	5.736	.826	.881	.708
SE	18.07	5.921	.735	.670	.727
PS	18.62	7.656	.107	.535	.852
BI	18.32	5.504	.553	.599	.770

Appendix C: Descriptive Analysis

A3a: Do you use mobile payment application for your business?

A3a

	Frequency	Percent	Valid Percent	Cumulative Percent
No	33	32.0	32.0	32.0
Valid Yes	70	68.0	68.0	100.0
Total	103	100.0	100.0	

B1: Gender

B1

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	71	68.9	68.9	68.9
Valid Female	32	31.1	31.1	100.0
Total	103	100.0	100.0	

B2: Age

B2

	Frequency	Percent	Valid Percent	Cumulative Percent
19-29 years old	18	17.5	17.5	17.5
30-39 years old	31	30.1	30.1	47.6
Valid 40-49 years old	19	18.4	18.4	66.0
50-59 years old	25	24.3	24.3	90.3
60 years old and above	10	9.7	9.7	100.0
Total	103	100.0	100.0	

B3: Races

B3

	Frequency	Percent	Valid Percent	Cumulative Percent
Malay	13	12.6	12.6	12.6
Chinese	78	75.7	75.7	88.3
Valid Indian	11	10.7	10.7	99.0
Others	1	1.0	1.0	100.0
Total	103	100.0	100.0	

B4: Educational Qualification

B4a

	Frequency	Percent	Valid Percent	Cumulative Percent
Secondary	36	35.0	35.0	35.0
Foundation/ Certificates	6	5.8	5.8	40.8
Valid Diploma	12	11.7	11.7	52.4
Degree and above	37	35.9	35.9	88.3
Others	12	11.7	11.7	100.0
Total	103	100.0	100.0	

Appendix D: One-Sample Test

One Sample T-test

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
PS	103	3.262136	.9518935	.0937929
PC	103	3.482201	.7608793	.0749717
PE	103	4.152103	.5022338	.0494866
EE	103	4.032363	.6993820	.0689122
SE	103	4.014563	.6955965	.0685392
BI	103	3.961165	.8185632	.0806554

One-Sample Test						
	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
PS	2.795	102	.006	.2621359	.076098	.448174
PC	6.432	102	.000	.4822010	.333495	.630907
PE	23.281	102	.000	1.1521029	1.053947	1.250259
EE	14.981	102	.000	1.0323631	.895676	1.169050
SE	14.803	102	.000	1.0145631	.878616	1.150510
BI	11.917	102	.000	.9611650	.801185	1.121145

Appendix E: Multiple Linear Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	PS, PE, EE, PC, SE ^b	.	Enter

a. Dependent Variable: BI

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.788 ^a	.621	.601	.5167990

a. Predictors: (Constant), PS, PE, EE, PC, SE

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42.438	5	8.488	31.779	.000 ^b
	Residual	25.907	97	.267		
	Total	68.345	102			

a. Dependent Variable: BI

b. Predictors: (Constant), PS, PE, EE, PC, SE

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.264	.443		-.596	.553
	PC	.318	.086	.296	3.721	.000
	PE	.093	.127	.057	.730	.467
	EE	.330	.114	.282	2.894	.005
	SE	.263	.127	.223	2.060	.042
	PS	.105	.069	.122	1.535	.128

a. Dependent Variable: BI

Appendix F: Cross Tabulation

B2 * B1 Crosstabulation

Count

	B1				Total
	Disagree	Neither agree nor disagree	Agree	Strongly agree	
19-29 years old	0	0	10	8	18
30-39 years old	1	1	21	8	31
B2 40-49 years old	1	1	13	4	19
50-59 years old	2	6	13	4	25
60 years old and above	4	1	4	1	10
Total	8	9	61	25	103

B4a * B1 Crosstabulation

Count

	B1				Total
	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Secondary	4	4	22	6	36
Foundation/ Pre-U/ Certificates	0	0	6	0	6
B4a Diploma	1	0	8	3	12
Degree and above	1	1	20	15	37
Others	2	4	5	1	12
Total	8	9	61	25	103

Sellers' Intention to Adopt Mobile Payment in Klang Valley

B2 * B4a Crosstabulation

Count

	B4a					Total
	Secondary	Foundation/ Pre-U/ Certificates	Diploma	Degree and above	Others	
19-29 years old	5	0	4	9	0	18
30-39 years old	11	2	5	13	0	31
40-49 years old	11	0	1	7	0	19
50-59 years old	8	3	1	5	8	25
60 years old and above	1	1	1	3	4	10
Total	36	6	12	37	12	103