Mobile Payment Adoption And Customer's Attitude

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Abstract – This research aimed to investigate the relationship between customer's attitude and mobile payment among Malaysian customers. There are three research objectives. First to identify the consumers' related issues which effect the mobile payments among Malaysian Customer. Second objective is to investigate the relationships between, payment culture, ease of use, usefulness and security. finally, to identify the main consumers' concern that influencing the mobile payment feasibility in Malaysia. In this research, the researcher carried out a survey among the young public to access the performance of mobile payment services available in Malaysia. Besides, the direct opinion from the consumers is able to enhance the insight of the service providers. In conclusion, mobile payment feasibility is important to realize Bank Negara Malaysia (BNM) strategy which is Malaysia becomes a cashless society by 2050.

Keywords: consumers' attitude; mobile payment adoption; perceived value

1. INTRODUCTION

1.1 Background of the Study

Bartering considered as a type of exchange that relied upon by early civilizations. It is defined as the trading services or goods with another person when there is no money involved. However, if there are a lot of people participated in the exchanges, then a common medium of exchanges is needed. Hence, money act as the medium. Marco Polo introduced the concept of banknotes to Europe from China in the 13th century, and it took another 300 years for them to adopt the concept (Daychopan, 2016). Then, the first credit card created in the year 1950 and the invention of Automatic Teller Machines (ATMs) in the year 1967. Hereafter, internet banking was introduced in the year 1990 and it took more than ten years for Bank America to acquire two million users for the services.

Two disruptive types of currency risen in the 21st century which are virtual currency and mobile payments. Bitcoin is the virtual currency that invented in the year 2009 which provides the guarantee of lower transaction costs than the conventional online payment mechanism and is served by a scattered expert (Beattie, 2018). Dissimilar with the government issued currencies, there are no physical bitcoins but only remainders stored on a public ledger in the cloud. However, technological advancement has driven the adoption of mobile wallets in the market. Mobile payment normally refers to payment functions that fulfilled from or through a portable electronic appliance such as cellular phones, smartphones or PDAs, and mobile digital computers. It is said to be a safer payment method compared to debit or credit card with the encryption of payment information during the transmission.

In 2014, the first mobile payment introduced to the public was Apple Pay from the United States. Apple Pay allowed users to pay with Apple devices. There is nearly 40 percent of United States retailers were accepting contactless payment in 2016 (Daychopan, 2016) and the use of cards is almost being eliminated by the current society. Even though the United States is the first country that introduced mobile payments to the public,

the services are more widely used in China. In China, common mobile payments such as WeChat Pay and Alipay are operated by scanning QR codes at the POS which connect to the client's bank account. Accordingly, China has been one of the earliest adopters and widespread use of mobile payments which possibly because they are having the highest amount of smartphone users in the world (Tan, 2018). The delayed card adoption enables the country to adopt mobile payments easily (Pikri, 2018). Even the technologically sophisticated country like our neighbour country Singapore, cash still remains the first choice while paying for goods.

Innovations in mobile technology will drive the sharing economy (Blum, 2016). Therefore, Bank Negara Malaysia (BNM) strategized to optimise and strengthen the current infrastructure that supports mobile payments which could be verified in the Financial Sector Blueprint 2011-2020 (FSBP). Bank Negara Malaysia aimed to create a cashless society starts from 2017 and will actively promote mobile payments as the complementary of debit cards in order to replace cash in 2018 (The Star Online, 2018). Currently, cashless payments only hold for a relatively small portion of total payments in Malaysia which is about 20 percent and with only half of that are mobile payment transactions. There are various mobile payment systems provided in Malaysia including Samsung Pay, Alipay, Razer Pay (previously One2pay), GrabPay, Touch 'n Go Digital and the most recent entry of WeChat Pay, etc. In December of 2017, Maybank introduced cashless payments using QR code called "Maybank QRPay" which made it the first bank to introduce such a service in Malaysia.

Malaysia's Prime Minister Tun Dr. Mahathir Mohamad stated that the government's initiative to move towards a cashless society will further curb corruption (Jamil, 2018). From his statement, every transaction will be recorded in the bank among others, thereby whoever gives and receives cash inducements would be able to find out. Thus, living costs could be decreased if there is no corruption. In short, mobile payments could be the main driver that helps Malaysia to create a cashless ecosystem in order to improve our living conditions.

1.2   Problem Statement

Malaysia is aimed to achieve a cashless ecosystem by the year 2050 (The Star Online, 2017). However, in Malaysia, 80 percent of the transactions are still in cash, with 10 percent of credit cards and 10 percent online (Azmi, 2018). Mobile payment is considered as a convenience service, lower risk compared to cash and cards, a spends tracker and etc. Despite the advantages, it is still hard to achieve the widespread use of the technology. Most of the Malaysians are concerned with mobile payment security, and it resulted in the low percentage of mobile payment use in the nation (Joifin, 2017). Therefore, the sense of security would be the biggest challenge for the Malaysian to migrate from cash (The Star Online, 2017). Improvements on the safeguard need to be done by the developers to encourage the adoption of mobile payment among consumers and avoid the risk of identity theft. The high rate of safety features will lead to the usage of mobile payment becomes a habit when making any payment transactions.

Tradition barrier influenced the intention to use mobile financial services, thereby customers are struggling and hard to change their habits while performing payment (Chemingui, & Lallouna, 2013). Malaysians have a common problem which is the over-dependence on cards and cash. The mindset is hard to change that cash is intuitive. The strategy to promote the use of debit cards as an alternative to cash has been less successful (The Star Online, 2016). Even the widespread use of debit cards still in progress and increase in recent years. Therefore, Malaysian unwillingness to wean from using cash is the obstacle to make mobile payments become mainstream (Azmi, 2018). Malaysians' refusal of migration to mobile payment probably to avoid overspending. Behavioural finance theorists stated that memory of transactions was more deeply if use physical cash instead of card (Dave, 2016). Thence, some people are difficult to control their budget using cards or mobile wallet instead of cash.

Emerging cashless payment systems are more convenient and efficient than the traditional methods (Patrick, & Kendal, 2017). Despite having a variety of mobile payments, Malaysia still lacks with merchants' support on the execution. Only a small number of merchants accept the pay with mobile payments. It makes consumers having inconveniences when using technology. Besides, the more complicated steps to use the wallet affect the efficiency of the technology. Many e-wallets in Malaysia required the users to transfer money into it before making any transactions (Pikri, 2018). Malaysia is consequently different from China, which is leading in the current market with the use of Alipay and WeChat Pay. Most of the mobile payments in Malaysia require users to add card into the wallet and choose which one to use when making transactions or top up the wallet with bank money before using it. Thus, it is not user-friendly for those are low technical knowledge or elders.

In conclusion, the full implementation of mobile payments in Malaysia would be failed if no active engagement from the public and the efforts of consumer protection (Chin, 2018). Therefore, the security and reliability of the mobile payment services are consequently significant.

1.3   Research Objectives

RO1. To identify the consumers' perceptions that influencing the mobile payment feasibility in Malaysia.

RO2. To investigate the relationships between the perceived security, payment culture, perceived usefulness and perceived ease of use.

RO3. To identify the most influential consumers' perception that influencing the mobile payment feasibility in Malaysia.

1.4   Research Questions

RQ1. What are the consumers' perceptions that influencing the mobile payment feasibility in Malaysia?

RQ2. What are the relationships between perceived security, payment culture, perceived usefulness and perceived ease of use?

RQ3. What is the most influential consumers' perception that influencing the mobile payment feasibility in Malaysia?

1.5   Scope of the Study

The research extent is focused on the impact of consumers' attitude towards mobile payment feasibility. Only the mobile payments that are available in Malaysia will be discussed in this study. The target respondents in this research are the young generation who age from 15 to 29 years old. Furthermore, this study focused on both mobile payment users and non-users. The limitation and key assumptions during the research were to assume that the respondents are honest to answer the questions for data collection and have adequate knowledge about mobile payment. In addition, selection bias might be happened due to the sampling technique used by the researcher.

1.6   Significance of the Study

This research would assist in encourage the sharing economy and improve the payment process to realise Bank Negara Malaysia (BNM) strategy, which is Malaysia becomes a cashless society by 2050. It was important to find out the consumers' attitude towards mobile payment feasibility in Malaysia. Besides, the project also studies deepen on the consumers' first concern when using mobile payment and how it gives the impact. The study would provide suggestion to redesign a system or environment that can improve the mobile payment service and its feasibility in Malaysia.

1.6.1 Theoretical Contribution

Both theory empirical findings contributed to our comprehension of the impact consumers' attitude towards mobile payment feasibility. This study also contributed to our comprehension of the consumers' perception and its influence on the consumers' intention to use the contemporary payment method. The combination for the theory of perceived value and technology acceptance model (TAM) hypothesized that perceived security (PS), payment culture, perceived usefulness (PU) and perceived ease of use (PEOU) influencing the mobile payment feasibility in Malaysia. Hence, there would be a higher feasibility of mobile payment in Malaysia when consumers' posits positive attitude towards the services.

1.6.2 Practical Contribution

The research contributed clearly to the practical. The usage of mobile payment would be likely higher when the consumers found out that the application is safe, superior to the conventional method, beneficial and simple utilization. The mobile payment services were making the payment process faster and safer. Users are able to keep records on their every financial transaction, while the speedy payment process able to boosts a nation's economy and create a cashless society that able to curb the corruption according to our Prime Minister. Lastly, the analysis of the study would provide some suggestions to improve the mobile payment usage in Johor, while mobile payment service providers in Malaysia might able to know their weaknesses that need to upgrade and make improvements in order to boost the usage of the services. From the study, the primary consumers' perception that influencing the mobile payment feasibility in Malaysia were identified. Therefore, this research would offer a great and meaningful dedication to the mobile financial services market for financial institutions.

1.7   Operational Definition

Table 1: Operational Definition of the Variables

Variables	Operational Definition
Mobile Payment Feasibility	Practicability research assesses the strategy's capacity to be successful (Sotiriadis, 2018). The potential of mobile payment successfully widespread use.
Perceived Security (PS)	The feeling of people who trust that their equity and privacy info is protected (Fan, Shao, Li, & Huang, 2018).
Payment Culture	The culture of payment presented by the uncertainty avoidance characteristic together with the availability (Fan et al., 2018).
Perceived Usefulness (PU)	The expected user's subjective thinking of using a specific service will improve his or her job efficiency within an organizational context (Davis, 1989).

Perceived Ease of Use (PEOU)	The degree to which expected users think that the particular service to be comfortable in the usage (Davis, 1989).

2. LITERATURE REVIEW

2.1 Mobile Payment and the Feasibility

Practicability research assesses the strategy's capacity to be successful (Sotiriadis, 2018). Hence, mobile payment feasibility is the potential of mobile payment successfully widespread use. By using mobile appliances, mobile payment can perform payments for products, services, and bills (Dahlberg, Guo, & Ondrus, 2015). Thus, mobile payment is a payment mode that using mobile devices to commence, authorize and make a merchant transaction (Fan et al., 2018). Mobile payment is different from mobile banking in terms of the number of stakeholders comprised during the transaction. Banks are explicitly associated with the users in mobile banking, while in mobile payment, consumer, merchant, and bank work together to carry out the process. (Oliveira et al., 2016).

In fact, mobile payment is a contemporary type of value transmit, akin to other payment method but depends greater on the advanced characteristics of mobile devices and keep consumers' usage records (Pandy, & Crowe, 2014). Users able to perform payments at any moment and anyplace, thereby the mobile payment procedure is much quicker and simpler than any other online payment procedure (Cao et al., 2018). Moreover, the widespread use of the mobile device is favourable for mobile payment feasibility. It provides a platform to users for a cashless, fast, convenient and secure transaction (Shankar, & Datta, 2018). It is another form of economic exchange with the use of mobile payments that allow new mediums for consumers to perform payments on the products and services purchases (Liu, Kauffman, &Ma, 2015).

There were two different forms of mobile payments which are remote and proximity. Remote payments could be used by sign up for a service and log in for an application, thereby customers would able to use their mobile device to make payments (Taylor, 2016). Therefore, the value will be kept in a prepaid account or funds deducted directly from a bank account to the prepaid account. The example of a payment service provider (PSP) that provide a remote payment is PayPal. Besides, proximity payments are made in a near distance without performing any physical touch with a relevant appliance which normally required users to include their debit or credit card into the mobile wallet (Taylor, 2016). It is facilitated by NFC technology which often referred to as contactless payment. As an example, Samsung Pay is the PSP that providing proximity payment service.

Besides of Near Field Communication (NFC), there are various technologies used for mobile payments such as token transmission over the air (OTA), QR Code, Bluetooth, Wi-Fi, SMS and RFI (Rouse, 2015). However, current mobile payment providers were focusing more on NFC while Bluetooth payment technology could be the future trend with the faster checkout process (Meola, 2016).

The implementation of the tap-and-go payment could provide value to consumers while shopping in traditional brick-and-mortar stores (Bailey, Pentina, Mishra, & Mimoun, 2017). The conveniences of payment process favourable consumers to make a purchase. Therefore, it is important to make mobile payment feasible or widespread in a nation. The great penetration of mobile payment in many nations not merely bring consumers comfort, but also generates a great return for particular organisations and consequently boosts a nation's entire financial service model (Phonthanukitithaworn, Sellitto & Fong, 2016). Hence, this paper is

to understand the consumer's attitudes and consciousness towards mobile payment in order to find its feasibility.

2.1.1   Mobile Payment Systems: Near Field Communication (NFC)

The use of NFC was on the rise because of the swift development of smartphones and their favourable amount of applications (Luna et al., 2018). As a useful IT-based technology, Near Field Communication (NFC) is a standardized technology that enables bi-directional wireless proximity communication between computerized gadgets (Museli, & Navimipour, 2018). In general, it is intended to perform transactions, swap digital detail and link computerized gadgets effortless and more appropriate with a touch (Mcclaren, & Vocino, 2017). This relatively emerging technology changed many aspects of daily life, especially for payment. There are various strengths of NFC technology used in mobile payment services such as increases financial transparency, decreases the risk of fraud, increases economies of scale and reduces investment risk (Museli et al., 2018). NFC provides additional visual security mainly because of the shorter distance which transactions need to make nearby point-of-sales (POS) terminal that makes spying more difficult (Klaarbergen, 2014). Mobile payments that using NFC and launched in Malaysia are Apple Pay, Samsung Pay, Maybank Pay and CIMB Pay (Leo, 2017).

2.1.2   Mobile Payment Systems: QR (Quick Response) Code

QR codes are storage systems which implement a dot matrix or two-dimensional bar code that can be printed out or presented on a screen (Luna et al, 2018). The systems then elucidated by a special reader to offer more comprehensive info than that found in a conventional bar code (Luna et al., 2018). QR codes were changing social behaviour and started the transition to a cash-free economy in China (Chen, 2017). The booming of the mobile payment industry partly due to how simple it is. Most of the payment services required merchants to install expensive equipment in their stores, while in China, there are only QR code and a smartphone needed (Pikri, 2018). Smartphone penetration was expected to exceed a hundred percent in 2018, thereby championing QR and support the moving of Malaysia towards cashless society (Pikri, 2018). Mobile payments that using the QR code and launched in Malaysia are GrabPay, Touch 'n Go, vcash, WeChat Pay, MaybankPay and BigPay (Gazi, 2018).

2.1.3   Mobile Payment System: Bluetooth Low Energy (BLE)

Bluetooth is open wireless and widely available protocol for transferring and accepting info over short distances between two mobile phones (Patel et al., 2015). However, BLE based mobile payment provided consistency in security (Patel et al., 2015). BLE is available in most mobile phones; almost all iOS and Android appliances, as well as the arising platforms support the technology (Kamal, 2014). The main advantage of BLE compared to NFC was payment freedom (Klaarbergen, 2014) which makes BLE could be the future trend of mobile payment. For instance, it was likely to wipe out line-ups and provides customers the freedom to make payment anyplace in-store (Kamal, 2014). Therefore, BLE enables user to link to a point-of-sale terminal or the cloud at any place in a store, even when it is overcrowded (Klaarbergen, 2014).In addition, a hands-free payment transaction would be allowed if an automated BLE connection and pre-authorized transaction included at the same time (Klaarbergen, 2014). BLE is still new in Malaysia's mobile payment industry. However, BLE beacons are promoting by service providers such as PayPal and Apple to carry out contactless payments. In fact, NFC would likely build on the momentum of contactless card payment whereas BLE is dependent on a totally new infrastructure and ecosystem that does not exist today (Stanchion Payments, 2014).

2.2 Consumers' Attitude

Attitude is a built of psychological which mental and emotional inheres in or a personal characteristic (Perloff, 2016). Consumers' attitude is the perspective of consumers towards a particular product or service. Consumer attitude means the good or bad feeling of an individual towards an object. It normally consists of beliefs towards, feelings towards and behavioural intentions towards some objects (Cherry, & Gans, 2018). Hence, attitudes can be said as the predictors of behavioural intention. Consumer behaviour stands as an analysis of how consumers choose, purchase, adopt, and adapt ideas, products, and services in order to fulfil their demands (Chand, 2014). Therefore, an individual's perspective has a great impact on his or her use of technology (Ayo, Oni, Adewoye, & Eweoya, 2016). Previous researches have presented factual information shown the favourable of mobile payment feasibility affected by consumers' attitude. Malaysian mobile users were beginning to accept mobile payment system to perform payment transaction as long as it is safe, convenient and effective (Ting, Yacob, Liew, & Lau, 2016). Consumers' perceived convenience and compatibility motivate the use of mobile payment whilst perceived risk, insecurity and perceived cost restrain the utilization of the technology (Humbani, & Wiese, 2017).

2.2.1 Intention to Use

Beliefs and attitudes are predictors of behavioural intention to use (Davis, 1989). Behavioural intention is defined as which a person is ready to act and perform the expected behaviour in the future (Sripalawat, Thongmak, & Ngramyarn, 2011). In addition, the intention to use has been mentioned in many theories as to the variable that affects the actual use of technologies. For instance, the theory of reasoned action (TRA) explained that intention is influenced by the user's attitude toward performing the behaviour and the subjective norm (Fishbein, & Ajzen, 1967). However, the theory of planned behaviour (TPB) explained that perceived control has influential on consumers' behavioural intention along with their attitude and subjective norms (Ajzen, 1985). Attitude could be positive or negative and may lead to favourable or unfavourable behavioural intention. Even though mobile payment posits many benefits, the growth in the number of mobile wallet users still remained slow in Malaysia. Attitude and intention of the consumers was the basic problem while their utilization of mobile payments would be capable of providing the required level of scale and advantageousness to this comparatively modern technology (Madan, & Yadav, 2016). The past study stated that there was a high possibility of consumers' positive attitude towards mobile banking if only if clear advantages are perceived (Lin, 2011). Thus, consumers' attitude and beliefs highly affected their intention to adopt mobile payment (Ting et al., 2016).

2.3 Relevant Theories

2.3.1 Theory of Perceived Value

The theory of perceived value is a view that believes the success of a commodity or service is largely associated with customer satisfaction on their wants and needs (Kokemuller, 2018). "Value" and "values" are two different notions. Therefore, "value" prioritizes a single transaction or a final terminal, but "values" are the basis of any social behaviour included with bias, thoughts, principles, and arguments (Boksberger, & Melsen, 2011). Perceived value means the consumers' comprehensive feelings of overall gains and losses for the commodities or services they purchase (Zeithaml, 1988). Consequently, perceived value can be posited as an uni-dimensional construct that can be measured merely by enquiring respondents to appraise the value that they obtained in accomplishing their purchases (Sánchez-Fernández et al., 2007). Customer perceived value is commonly studied to include functional, economic, emotional, and social aspects (Lin, Quan, Lau, & Ma, 2016). Emotional value is the economic value of perceptions, practically about the quality or any other measure of an institution's value, can grow or ruin a business (Barlow, & Maul, 2011). Emotions influenced consumers' perceptions and behaviours including decisions making, it is

more than a cognitive process and even more than just feelings (Barlow, & Maul, 2011). Thence, emotional value has a significant role in consumers' attitude. The previous study demonstrated that the consumers not only valued the expected performance and versatility from a product or service, but further in terms of the satisfaction or comfort derived from it which could be called as the emotional value (Sweeney, & Soutar, 2001). In addition, perceived benefits and risks have strong influences on the perceptions toward mobile payment. Therefore, make payments with a mobile device still needs to offer an obvious added value to encourage the adoption (Kerviler, Demoulin, & Zidda, 2016).

2.3.2   Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) is a transformation of the Theory of Reasoned Action (TRA), a broadly discussed model which is involved with the principles of knowingly intended behaviours. However, TAM was created to simulate user acceptance of information systems (Davis, 1989). A basis is provided by TAM to find out the influence of the external factors toward the internal assumptions, perceptions, and motives. (Davis, 1989). TAM suggested perceived usefulness (PU) and perceived ease of use (PEOU) are the elements that affect the consumers' attitude towards the technology adoption and simultaneously determine the consumers' intention to use the technology (Davis, 1989). From the previous studies, there were great factual support to TAM for its analytic capability in the background of internet banking (Patel, & Patel, 2018) and considered as a powerful and basic underlying model for the mobile payment systems study (Luna et al., 2018). However, TAM seldom investigated the impact of perceived risks toward mobile payment adoption (Thakur, & Srivastava, 2014) but significantly predicted that PEOU and PU are affected the behavioural intention of use (Mensah, & Cheng, 2018).

2.4 Proposed Conceptual Framework

This conceptual framework used for determining the impact of consumers' attitude towards mobile payment feasibility. The dependent and independent variables were identified as the figure shown below. The consumers' attitude that shows impact on the mobile payment feasibility is perceived security, payment culture, perceived usefulness and perceived ease of use.
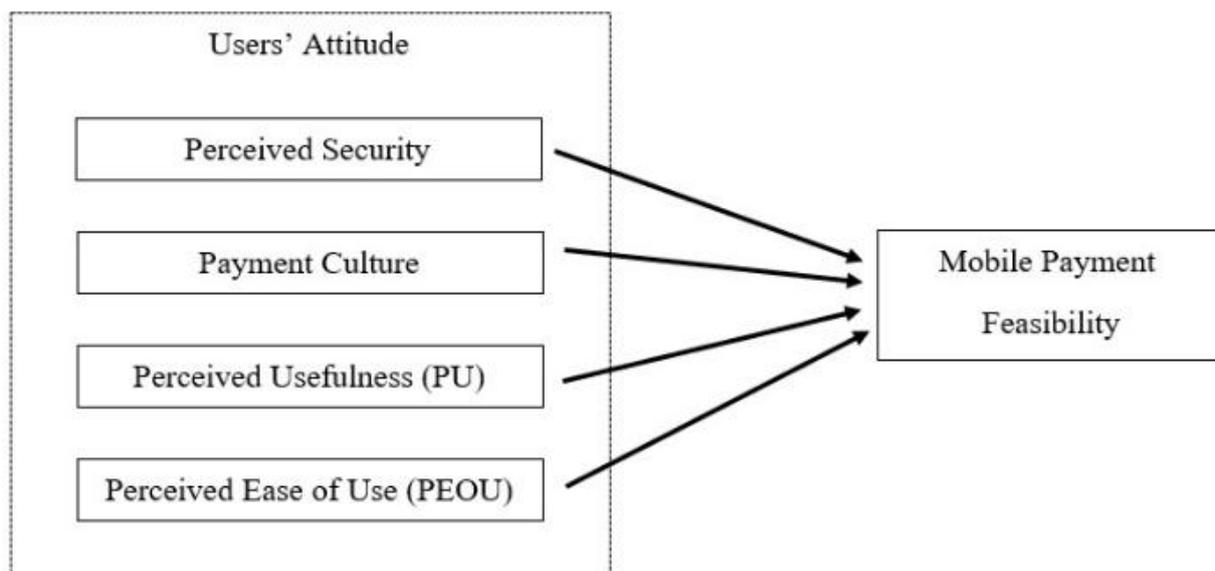
Figure 1: Conceptual Framework of the Study

The research is aimed to satisfy the previous studies' limitation by providing insights from young people perception of the usage of mobile payment. It was done by creating the possible consumers' attitude that might be affecting the mobile payment feasibility. The

independent variables (IVs) are perceived security, payment culture, perceived usefulness and perceived ease of use which would be analysed to determine the differences of these independent variables affect the mobile payment feasibility. By referring to the adopted theories which are Theory of Perceived Value and Technology Acceptance Model (TAM), thereby the idea to scope the new conceptual framework is generated for this research.

Theory of Perceived Value has stated the importance of the users' benefits received from a product or service which measure the usefulness or satisfaction from the consumption (Zeithaml, 1988). From the proposed conceptual framework, it could relate that emotional value such as perceived security (Fan at al., 2018) treated as one of the key determinants of consumers' attitude towards mobile payment feasibility. Besides, payment culture describes the consumers' attitude that tries to avoid uncertainties and indicates that the business environment of a country affects the feasibility of mobile payment. Value is what is good and a higher-level concept than quality, thereby the emotional payoff (Zeithaml, 1988). Thus, consumers' ability to relief from the uncertainties affect the mobile payment feasibility.

The second theory is the Technology Acceptance Model (TAM) which stated that perceived usefulness and perceived ease of use influence the attitude toward using and the behavioural intention to use a technology (Davis, 1988). It acted as the most popular theory that has been used in many studies, which probably because of its indication on the use of technology. TAM indicates the enhancement of the user performance and the effortless use of technology would affect the consumers' perception towards the particular technology.

2.5 Hypothesis Development
2.5.1   Perceived Security (PS)
The feeling of insecurity inhibits the use of mobile payments (Humbani, & Wiese, 2017). In general, security means protecting assets against the hackers, virus, natural disasters, unfavourable environments, power failing, theft or destruction, or other unsatisfactory states. (Andress, 2014). Accordingly, security could be a feeling of being safe and free from worry. Information security or InfoSec means the fulfil of protecting info from illegal access, apply, exposure, disruption, alteration, scrutiny, examination, documenting or destruction (Alhassana, & Adjei-Quayeb, 2017). CIA triad is formed with three goals such as confidentiality, integrity, and availability. However, information security needs to focus on at least one of three goals: assure the confidentiality of the info, maintain the integrity of the info and advance the availability of info for authorized use (Merkow, & Breithaupt, 2014). Consumers are concerning their personal information protection while using a mobile payment application to avoid uncertainty risk. Perceived security indicated the consumers' perception towards expected security threats from the use of M-wallet (Kumar, Adlakaha, & Mukherjee, 2018). Perceived security in mobile wallet defined as the degree to which people trust that their equity and privacy info is protected during the use of mobile payment (Fan et al., 2018). Previous studies have a consistent view suggested that consumers' perceived security impact positively to mobile payment adoption. The higher the perception of trust and security, the greater probability to be optimistic towards mobile payment (Fan et al., 2018). The intention to use mobile wallet was affected by the consumers' privacy concerns (Bailey et al., 2017).
$H1_1$: There is a significant relationship between consumers' perceived security and mobile payment feasibility.
$H1_0$: There is no relationship between consumers' perceived security and mobile payment feasibility.
2.5.2   Payment Culture
The culture was found to be the key determinant for mobile payment feasibility in a nation (Fan et al., 2018). For instance, there were barely a limited number of supportive

merchants towards mobile payment services even though there are a lot of wallets available in Malaysia (Lee, 2018). Therefore, the previous study shows that the coverage of mobile payment affects the number of mobile payment users (Fan et al., 2018). Hofstede's Cultural Dimensions stated that uncertainty avoidance has a significant effect on trust (Chien, Sycara, Liu, & Kumru, 2016). Uncertainty avoidance refers to the degree to which the consumers felt endangered by the ambiguous or unidentified situation and willing to follow the formal rules and regulations to minimize the uncertainties (Fan et al., 2018). Malaysians' had a high dependency on debit or credit cards nowadays (Pikri, 2018) which may influence the use of mobile payment. Thus, credit card users have a greater chance to use mobile payments (Meyll, & Walter, 2018). Similarly, consumers might reject to adopt mobile payment as they are common with the use of debit or credit cards. As a result, consumers might perceive it is risky to make any transactions with mobile payment (Xin, Techatassanasoontorn, & Tan, 2015). Malaysians have an uncertainty avoidance characteristic which is more cautious and less risk propensity in the daily social and business interactions (Shah, Peikari, & Yasin, 2014). The level of uncertainty avoidance shows the degree of a person risks tolerance. Hence, the consumer holds extremely uncertainty avoidance characteristic would avoid risks actively, but the consumer that lack of uncertainty avoidance characteristic is acceptable to take more risks (Xin et al., 2015).

$H2_1$: There is a significant relationship between consumers' payment culture and mobile payment feasibility.

$H2_0$: There is no relationship between consumers' payment culture and mobile payment feasibility.

2.5.3 Perceived Usefulness (PU)

Perceived usefulness always being the key determinant that influenced consumers' decision technology adoption in Technology Acceptance Model (TAM) and Unified Theory of Acceptance and Use of Technology (UTAUT) (Bailey et al., 2017; Thakur, & Srivastava, 2014). However, perceived usefulness is explained as the extent of benefit utilizing technology to the job under TAM (Davis, 1989). Therefore, the clear benefit of mobile payment systems should be introduced to potential users in order to succeed in mobile payment diffusion (Mun, Khalid, & Nadarajah, 2017). The improvement of performance in daily activities could be achieved by the usage of mobile payment which shows that mobile payment services benefit users in efficiency and effectiveness (Mun et al., 2017). Before the evolution to mobile payment in payment methods, the introduction of internet banking brought a huge success due to its usefulness to the society and economy (Patel, & Patel, 2018). Thus, convenience is the key success of mobile payment feasibility. The intent to use mobile payments would be developed by consumer perceptions of usefulness. (Luna et al., 2018). Former studies claimed that perceived usefulness has an immediate connection with attitude. High convenience technology is useful to users. Consumers' time spent in the transaction affects consumer perceptions toward the convenience of service. Convenience refers to minimization of time and effort of the consumers while using technology or system (Ozturk, Bilgihan, Salehi-Esfahani, & Hua, 2017). Therefore, with regard to benefit the users, convenience will increase the perceived usefulness (Lai, & Chang, 2011). The notable features of mobile payment are short transaction time and high transaction efficiency (Wang, & Li, 2016). The greater convenience of the service encourages consumer adoption of mobile wallets (Hayashi, 2012). Within this paper, perceived usefulness considered as a determinant that has a direct impact on consumers' attitude towards mobile payment feasibility.

$H3_1$: There is a significant relationship between consumers' perceived usefulness and mobile payment feasibility.

$H3_0$: There is no relationship between consumers' perceived usefulness and mobile payment feasibility.

2.5.4 Perceived Ease of Use (PEOU)

A useful technology often has a perceived that to be easy to operate, making consumers optimistic about the specific technology. (Kim, & Shin, 2015). However, a useful technology is not always easy to use for some users. Perceived ease of use (PEOU) is described as the extent to which user assumes that utilizing the technology would be released from stress both mentally and physically (Mun, Khalid, & Nadarajah, 2017). It is one of those principal beliefs in the TAM same as the perceived usefulness. (Bailey, Pentina, Mishra, & Mimoun, 2017), which also implies to the degree of effortless to use a particular technology from consumers' belief (Davis, 1989). Hence, PEOU is considered as one of the most influential aspects of mobile payment acceptance (Luna et al., 2018). Consumers would be further anticipated to use a service if they regarded it to be user-friendly, accessible and do not require endless trouble to manipulate (Patel, & Patel, 2018). Consequently, the simpler to utilize the technology, the extra helpful it is recognized to be and the further probable to be used by consumers. As the alternative payment method beside of credit cards, debit cards, cash, and checks, mobile payment service must be as easy to use as those previous methods. Therefore, a system that difficult to operate could be the barrier to adoption (Johnson, Kiser, Washington, & Torres, 2018). An effortless mobile payment service increases the usage of the service due to its handy features. Accordingly, consumers do not have to invest time and effort on how to use the service (Rehncrona, 2018). Previous studies supported that perceived ease of use positively affect adoption. Consumers are concerned with the readiness of the application when making transactions using mobile commerce (Chong, 2013). The efficiency of the banking web-channel is among those most supported antecedents of the adoption (Harrison, Onyia, & Tagg, 2014). Various studies indicated the impacts of PEOU on mobile payments. Malaysian mobile users were beginning to accept the M-payment system as a comfortable and effective method to make a payment transaction (Ting et al., 2016). However, perceived ease of use also influenced the intention to use mobile payment in tourism (Peng, Xiong, & Yang, 2012). Thence, PEOU influenced the payment decisions and will become more important when mobile payment more established (Duane, Oreilly, & Andreev, 2012). PEOU strongly affects the utilization of mobile payment (Arvidsson, 2014). Therefore, an easy to use conversely absence of complexity in mobile payment system is assumed to drive consumers optimistic towards mobile payment feasibility by the consumers.

$H4_1$: There is a significant relationship between consumers' perceived ease of use and mobile payment feasibility.

$H4_0$: There is no relationship between consumers' perceived ease of use and mobile payment feasibility.

3. RESEARCH METHODOLOGY

Table 1: Summary (Research Design of the Study)

Aim of the Study	Description and Hypothesis Testing
Type of Investigation	Access to the previous studies; Causal Relationships.
Measurement and Measures	Items (measure), Scaling
Analysis Unit	Young population
Research Location	Johor area
Sampling Selection	Convenience Sampling

Sampling Design	Based on Krejcie and Morgan Table (1970), n is needed for 1.03 million population. Sample size (n) = 384
Respondent	Mobile payment users and non-users age 15 to 29 years old
Data collection method	Questionnaire
Data Analysis Method	SPSS as the tool: • Descriptive Analysis • Inferential Analysis • Multiple Regression Analysis

3.1 Sampling Technique

The non-probability technique was applied in this research to save the sampling cost, which does not require a large population compared to the probability technique. Convenience sampling also named as availability sampling or haphazard sampling, and it is used based on the availability of the subjects (Garson, 2016). Even though selection bias is a primary problem of convenience samples, advantages such as cost-effective and time efficient make the researcher decided to use this technique in the study. In addition, convenience sampling also defined as the samples were collected according to the accessibility of the researcher (Aghdaie, Sanayei, & Etebaru, 2012). Convenience sampling technique is suitable for this research since the target respondents are considered quite broad for this study in Malaysia.

3.2 Sample Size

Bank Negara Malaysia planned to build a cashless society by the year 2050, which probably leading by the young generation. Therefore, young respondents who staying in Johor area targeted for this survey. Both users and non-users are targeted as the respondents in this research to find out their attitude towards mobile payment. Department of Statistics Malaysia estimated that the population of Johor would become 3, 742, 200 in 2018 and only 1, 029, 400 of them are ages from 15 to 29 years old. Therefore, the questionnaires were distributed randomly to 384 respondents as the source of investigation. The decided sample size was referring to the table of Krejcie and Morgan. There were close-ended and open-ended questions in the questionnaires, which distributed through the web and offline to the target sample. Respondents had sufficient time to answer questions and avoid sampling errors.

3.3 Questionnaire Design

The questionnaire needed to design attentively to collect adequate data, solve and achieve the research questions, and objectives (Saunders et al., 2016). Before entry into the first section, the respondents are requested to provide their resident's status. The volunteers who are not staying in Johor were eliminated from answering the follow questions. Then, the questionnaire was categorized into two parts. The respondents' demographic profile was placed in the first part, such as gender, age range, race, and education level. The next part was asked about their attitudes towards the mobile payment and mobile payment feasibility. There were four variables (PS, PC, PU, and PEOU) that tested to meet the research objectives. The respondents are required to answer 5 questions for each variable. Next, mobile payment feasibility was focused on the consumers' intention to use and continuance usage towards mobile payment. Lastly, an open-ended question was optional to get suggestions from the respondents. A five-point Likert scale ranges from strongly agree to strongly disagree was applied in the questionnaire to measure the attitude of the respondents. Therefore, it allowed the respondents to express their perspective on a particular statement through the selection of

agree or disagree (McLeod, 2008). This questionnaire was self-completed and electronically distributed to the respondents. The online questionnaires were cost effective, time efficiency and paperless which is an easy way for both researcher and respondents. However, it was then distributed online and offline simultaneously to get the responses faster.

3.4 Measurement of Constructs

The constructs of the study are perceived security (PS), payment culture (PC), perceived usefulness (PU) and perceived ease of use (PEOU). Further, Mobile Payment Adoption Intention (MPAI) included as the construct for the dependent variable. The measurement items were adopted and adapted for this study depends on the relevancy .

<div align="center">Mobile Payment Adoption Intention (MPAI)</div>

1. Now I pay for purchases with a mobile phone. 2. Assuming that I have access to the m-payment, I intend to use it. 3. During the next six (6) months I intend to pay for purchases with a mobile phone. 4. Five (5) years from now I intend to pay for purchases with a mobile phone. Source(s) of Measurement: *Shankar and Datta (2018) (Adapted from Kim et al., 2010).*
For This Study: 1. Do you ever used mobile payment to make a transaction in the past? 2. Do you ever used mobile payment to make a transaction in recent one month? 3. Do you have any mobile payment applications installed in your smartphone now? 4. Will you use mobile payment to making payment in the future? 5-8. (Security/Coverage or Availability of merchants/ Usefulness/ Ease to use) affects my decision to use mobile payment. 9. Which of the following mobile payment services were you ever used? 10. Which of the following technologies are you prefer for mobile payment?

<div align="center">Perceived Security (PS)</div>

1. I think my transaction information is secure in third party payment platforms. 2. I think my mobile payment account information and account money are safe in third party payment platforms. 3. I think my money transfer process is secure are safe in third party payment platforms. 4. In your experience, is this mobile payment service less secure or more secure than a regular card payment? 5. The risk of an unauthorized party intervening in the payment process is low. 6. The risk of abuse of consumer information (e.g., names of business partners, payment amount) is low when using a SMS/NFC/QR mobile payment system. 7. The risk of abuse of billing information (e.g., credit card number, bank account data) is low when using a SMS/NFC/QR mobile payment. 8. I would like SMS/NFC/QR payment systems to be safe and secure. Source(s) of Measurement: *Fan, Shao, Li and Huang (2018) (Adapted from Gao et al., 2018); Arvidsson (2014); Luna et al. (2018) (Adapted from Parasuraman et al., 2005; Schierz et al., 2010).*
For This Study: 1. I think my transaction information is secure when using mobile payment. 2. I think my account information and account money are safe in the mobile payment platforms. 3. I think mobile payment is more secure than a regular cash or card payment. 4. The risk of an unauthorized party intervening in the payment is low. 5. I would like mobile payment to be safe and secure.

<div align="center">Payment Culture</div>

1. There are many scenarios where mobile payment can be used, for examples, in restaurants,

in groceries and in online shopping malls.

2. I can use mobile payment for many services, such as entertainment services (like movies and KTV), shopping service (both online and offline) and taxi service.

3. When making a payment, I use mobile payment most frequently.

4. When using mobile payment, I will follow all the rules regulations and operating procedures needed.

5. When using mobile payment, I will read the instructions of every procedures needed.

6. Regulations and rules of mobile payment is important to its users, because it can protect the safety of their account and thus the safety of their property.

7. When using mobile payment, I will follow the step-by step instructions to make a payment.

8. How often do you use cards today?

Source(s) of Measurement: *Fan, Shao, Li and Huang (2018) (Adapted from Kim et al., 1998); Fan, Shao, Li and Huang (2018) (Adapted from Hofstede, 1980); Arvidsson (2014).*

For This Study:

1. Mobile payment available at many merchants, for example in restaurants, in groceries, and in online shopping malls.

2. Mobile payment available for many services, such as entertainment services, shopping service and taxi service.

3. I prefer to use mobile payment while making a payment.

4. Regulations and rules of mobile payment protect the safety of the users' account and property.

5. I will read all the instructions to use mobile payment.

Perceived Usefulness (PU)

1. In your experience, was it slower or faster to pay products and/or services with this mobile payment service if compared to a regular card payment?

2. The SMS/NFC/QR mobile payment system is a useful mode of payment.

3. Using a SMS/NFC/QR mobile payment makes the handling of payments easier.

4. A SMS/NFC/QR mobile payment system allows quick use of mobile applications (for example, ticket purchases, use of mobile coupons, etc.).

5. I believe that an SMS/NFC/QR mobile payment system improves my consumer decisions (providing flexibility, speed, etc.)

6. Using m-payment would enable me to pay more quickly.

7. Using m-payment makes it easier for me to conduct transactions.

8. Using m-payment would be advantageous.

9. I would find m-payment a useful possibility for paying.

Source(s) of Measurement: *Arvidsson (2014); Luna et al. (2018) (Adapted from Bhattacherjee, 2001; Schierz et al., 2010); Shankar and Datta (2018) (Adapted from Davis, 1989; Kim et al., 2010).*

For This Study:

1. It is faster to pay with mobile payment compared to a regular cash or card payment.

2. Mobile payment system is a useful mode of payment.

3. Mobile payment system allows quick use of mobile applications

4. I think using mobile payment would be advantageous.

5. I believe that a mobile payment system improves my consumer decisions.

Perceived Ease of Use (PEOU)

1. In your experience, was it easy or difficult to learn how to use this mobile payment service?

2. In your experience, was it easier or more difficult to pay products and/or services with this mobile payment service if compared to a regular card payment?

3. It is easy to become skilful at using an SMS/NFC/QR mobile payment system.
4. Interaction with an SMS/NFC/QR mobile payment system is clear and comprehensible.
5. It is easy to follow all the steps of a SMS/NFC/QR mobile payment system.
6. It is easy to interact with a SMS/NFC/QR mobile payment system.
7. I believe that when I use m-payment, the process will be clear and understandable.
8. I believe that it is easy for me to become skilful at using m-payment.
9. I believe that m-payment is easy to use.
Source(s) of Measurement: *Arvidsson (2014); Luna et al. (2018) (Adapted from Bhattacherjee, 2001; Davis et al., 1989; Taylor and Todd, 1995; Venkatesh and Davis, 2000; Schierz et al., 2010); Shankar and Datta (2018) (Adapted from Davis, 1989).*

For This Study:
1. It is easy to learn how to use the mobile payment services.
2. It is easier to pay with mobile payment compared to a regular cash or card payment.
3. Interaction with a mobile payment system is clear and comprehensible.
4. It is easy to interact with a mobile payment system.
5. It is easy to follow all the steps of a mobile payment system.

4. DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Descriptive Statistics Analysis

Frequency tabulation and frequency distributions were used to demonstrate the diversity of the consumers based on resident of Johor, gender, age range, races, education level, mobile payment used and preferred technologies. A total of 404 questionnaires have distributed among the consumers age ranging from 15 to 29 years old. However, only current Johor residents were qualified for this study. Therefore, only 384 respondents considered as qualified responses. Questionnaires have distributed to the Johor residents through both online (Google Form) and offline.

Most of the respondents are Johor residents which contained 384 respondents as the disqualified had being removed because of the range of the research is in Johor, Malaysia. The respondents represent the consumers' attitude towards the recent new payment method.

There were 165 (43.0%) male respondents and 219 (57.0%) female respondent out of a total of 384 respondents. It is slightly different between male and female perception according to their statement. Therefore, they have different attitude and point of view towards mobile payment. The number of female respondents were marginally greater than the males in the research.

There were total 3 categories in the age range group. The youngest respondents are from 15 to 19 years old which consist of 90 (23.4%) respondents among 384 respondents while 174 (45.3%) respondents were 20 to 24 years old. Besides, the oldest respondents are from 25 to 29 years old which consist of 120 (31.3%) respondents. Therefore, it can be clarified that those respondents are in current young generation and reliable to the scope of the research.

The Malaysian Chinese were the greatest race of the respondents with 178 (46.4%) and followed by the Malay with 161 (41.9%) respondents. At the same time, Indian contributed only 41 respondents which is 10.7%. However, the other races such as Dusun, Iban, Siamese and Arab contributed merely 1 (0.3%) respondent each accordingly.

The education level plays a significant role in affecting consumers' attitude towards mobile payment. A large portion of respondents were Degree holder which involved 150 (39.1%) respondents. The amount of SPM holder was ranked just after the Degree holder with 78 (20.3%) respondents. However, it was just slightly higher than the number of below

SPM and STPM or Diploma holder at the same time. There were 75 (19.5%) respondents educated below SPM while 70 (18.2%) were educated until STPM or Diploma level. Forasmuch as, only 11 or 2.9% respondents from Master and above of the level. Hence, it was reasonable to analyse the education level of respondents may affect differently on consumers' attitude toward mobile payment.

A large percentage of the respondents used Touch 'n Go Digital which is 210 users and contributed 54.7% among 384 respondents. In addition, GrabPay and Maybank Pay also commonly used in Malaysia which are 194 (50.5%) respondents and 143 (37.2%) respondents each accordingly. The mobile payment that had the least users is Samsung Pay with only 28 (7.3%) respondents due to the restriction usage for the Samsung users only. However, BigPay and Boost App both having a great number of users which are 65 (16.9%) respondents and 31 (8.1%) respondents chosen in this survey probably due to the promotion and advertising campaign done by the company (Keegan, 2015). Other mobile payments such as Apple Pay, WeChat Pay, Fave and Paypal contributed a total of 14 (3.7%) respondents only. Besides, 19.3% from 384 respondents which is 74 of them did not used any mobile payment before.

It is an evident to be seen that over 56.6% respondents prefer QR code as the mobile payment technology used which contributes 271 respondents. However, BLE is still a technology that unfamiliar to the consumers with only 10 (2.1%) respondents chosen it as their preferred technology. Furthermore, NFC has been applied widely by the mobile payment services such as Samsung Pay and contributed 108 (22.5%) respondents in this survey. In conclusion, this suggests that mobile payment service providers have a great chance to attract the consumers with the used of QR code technology compared to the other technologies.

4.2 Pearson's Correlation Analysis
Table 2: Pearson Correlation between variables

		PS	PC	PU	PEOU	MBF
PS	Pearson Correlation	1	.793**	.704**	.533**	.582**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	384	384	384	384	384
PC	Pearson Correlation	.793**	1	.845**	.652**	.501**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	384	384	384	384	384
PU	Pearson Correlation	.704**	.845**	1	.686**	.486**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	384	384	384	384	384
PEOU	Pearson Correlation	.533**	.652**	.686**	1	.507**
	Sig. (2-tailed)	.000	.000	.000		.000

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The results indicated that all independent variables are positively and significantly associated with the consumers' attitude towards mobile payment feasibility. The correlation value between mobile payment feasibility (MBF) and perceived security (PS) is 0.582 and the significance level is 0.000 which is ($p < 0.05$). Therefore, there was a moderate positive significant relationship between two of them and it is the highest correlation value compared to the others. Furthermore, the lowest correlation value was between mobile payment feasibility (MBF) and perceived usefulness (PU) which $r = 0.486$. However, a moderate positive relationship between these variables was determined, and a highly significant relationship indicated between MBF and PU with a 0.000 significant level which the p value is smaller than 0.05.

In addition, a moderate positive relationship indicated between mobile payment feasibility (MBF) and payment culture (PC) with a correlation value of 0.501, and also a highly significant relationship with a significant level of 0.000 which the p value is smaller than 0.05. Moreover, the correlation value is 0.507 between mobile payment feasibility (MBF) and perceived ease of use (PEOU) which illustrated a moderate positive relationship. Meanwhile, there was a highly significant relationship between MBF and PEOU due to a significant level of 0.000 which the p value is smaller than 0.05. In overall, all independent variables show moderate positive significant relationship with the dependent variable.

Besides, for the relationship among the independent variables, table 4.2 clearly shows that there were positive significant relationships among each independent variable. However, the highest correlation value is between payment culture (PC) and perceived usefulness (PU) which is 0.845 and indicated a strong positive relationship. Further, a strong positive relationship also indicated between perceived security (PS) and payment culture (PC) with a correlation value of 0.793. The lowest correlation value indicated between the independent variables is 0.533 which is between PS and PEOU, but there is still a moderate positive relationship among them.

In conclusion, all variables are statistically significant and correlated among each other since all correlations between variables are positive.

4.2.2   Multiple Regression Analysis

Multiple regression analysis was utilized in this study to analyse the simultaneous effects of the independent variables such as perceived security (PS), payment culture (PC), perceived usefulness (PU) and perceived ease of use (PEOU) on the dependent variable, mobile payment feasibility that is interval scaled. Therefore, it is used to determine the variance of the dependent variable which described by a set of predictors.

The value of correlation coefficient (R) is 0.628. The higher the correlation coefficient, the greater the independent variables affect to the dependent variable. The R value was considered as strong since 0.628 is greater than 0.5. Thus, a great correlation determined between the variables. The coefficient of determination, R square was 0.395 which illustrated that 39.5% of variance affected mobile payment feasibility can be determined by the variables of PS, PC, PU and PEOU. The remaining 61.5% was described by other determinants, which were not considered into the research.

The F-test result is 61.740 with a significant value ($p = 0.000$) which overall probability of the relationship between dependent variable (mobile payment feasibility) and independent variables (PS, PC, PU and PEOU) happening by chance. This suggested that the probability of these results happening by chance was less than 0.05 since the p-value is 0.000. Hence, there is a significant relationship between dependent variable (mobile payment feasibility) and independent variables (PS, PC, PU and PEOU). Besides, the null hypotheses were rejected because the regression model has a significant level that did not exceed 0.05.

Table of coefficients illustrated that the estimated coefficient where beta (constant) is 0.024, beta of perceived security is 0.111, beta of payment culture is -0.024, then beta of perceived usefulness is 0.005, and beta of perceived ease of use is 0.063. Based on the data in the table 4.3, the equation of multiple regression in this study was formed as below:

Mobile Payment Feasibility = 0.024 + 0.111 PS + (- 0.024) PC + 0.005 PU + 0.063 PEOU

Most of the best values for the variables showed a positive value except payment culture (PC). Therefore, payment culture (PC) has a negative influence on the dependent variable while the other independent variables has a positive influence. In accordingly, the equation above means that every unit of perceived security will lead 0.111 increases in mobile payment feasibility. Meanwhile, every unit of payment culture will lead 0.024 decreases in mobile payment feasibility.

Other than that, the greater beta value was correlated with greater t-value and smaller p-value. If the value of coefficient is greater, the contributions of independent variables towards dependent variable is greater. The results from table above show perceived security is the major factor that influence mobile payment feasibility with the highest beta value of 0.111. Then, PEOU is the second factor that influence mobile payment feasibility which beta value is 0.063 follow by the PU with a beta value of 0.005.

Hence, perceived security is the strongest determinant compared to the other independent variables while perceived usefulness has the least impact along with payment culture has a negative impact towards mobile payment feasibility.

Table 3: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.024	.042		.582	.561
Perceived Security (PS)	.111	.015	.483	7.313	.000
Payment Culture (PC)	-.024	.023	-.092	-1.035	.301
Perceived Usefulness (PU)	.005	.017	.022	.278	.782
Perceived Ease of Use (PEOU)	.063	.012	.294	5.261	.000

a. Dependent Variable: Mobile Payment Feasibility

5. CONCLUSION AND RECOMMENDATION

<u>Objective 1: To identify the consumers' perceptions that influencing the mobile payment feasibility in Malaysia.</u>

The first research objective is to identify the consumers' perceptions that influencing the mobile payment feasibility in Malaysia. Thus, multiple regression analysis was utilized to achieve the first objective.

Based on the table 4, this study found a significant relationship between consumers' perceived security and mobile payment feasibility with $\beta = 0.111$ and $p = 0.000$. Since the significant level is smaller than 0.05, the alternative hypothesis (H11) is accepted and the null hypothesis (H10) is rejected. The outcome was constant with the previous studies which suggested that the higher the sense of security, the greater the chance to hold positive attitude toward mobile payment (Fan et al., 2018). Hence, since security has proven to have a significant impact on mobile payment feasibility, mobile payment service providers in Malaysia should figure out some concrete strategies to build strong consumer trust to further increase the penetration of mobile payment in Malaysia.

Besides, table 4 also illustrated that there is no relationship between consumers' payment culture and mobile payment feasibility with $\beta = -0.024$ and $p = 0.301$ which is larger than

0.05. Therefore, the null hypothesis (H20) is accepted and the alternative hypothesis (H21) is rejected. The result was supported by the previous study which stated that Malaysians have an uncertainty avoidance characteristic which is more cautious and less risk propensity in the daily social and business interactions (Shah, Peikari, & Yasin, 2014). Thus, Malaysian consumers' payment culture has a negative impact on mobile payment feasibility (Xin et al., 2015). It is crucial to have the cooperation between the stakeholders such as service providers, merchants, consumers and government to reduce the dependency on debit or credit cards among Malaysian consumers.

For perceived usefulness, the result shown that there is no relationship between consumers' perceived usefulness and mobile payment feasibility, which $\beta = 0.005$ and p = 0.782. Since the significant level is larger than 0.05, the null hypothesis (H30) is accepted and the alternative hypothesis (H31) is rejected. The result was supported by the previous study in Thailand which mentioned that perceived usefulness surprisingly irrelevant as the issue of consumers' intention to use mobile payment even though it is important in the Technology Acceptance Model (TAM). Since Malaysia is a developing country similar to its neighbour country Thailand, it could be suggested that Malaysian consumers do not perceived mobile payment providing any additional benefit as a useful payment method compared to the existing methods like cash or cards (Phonthanukitithaworn et al., 2016).

Furthermore, table 4 illustrated a significant relationship between consumers' perceived ease of use and mobile payment feasibility, which $\beta = 0.063$ and p = 0.000. Since the significant level is smaller than 0.05, the alternative hypothesis (H41) is accepted and the null hypothesis (H40) is rejected. It was constant with the previous study, which stated that PEOU strongly affects the use of mobile payment (Arvidsson, 2014). Hence, there will be a greater chance for the mobile payment to penetrate in Malaysia if the consumers perceive it as an easy-to-use payment method which related to the steps, process and technology used.

<u>Objective 2: To investigate the relationships between the perceived security, payment culture, perceived usefulness and perceived ease of use.</u>

After the consumers' concerns are identified, the second research objective is to investigate the correlation of independent variables (perceived security, payment culture, perceived usefulness and perceived ease of use). The objective was considered to find out the correlation between the variables. Therefore, Pearson's Correlation was applied to examine the correlation value between them.

From the results shown in the table 4, there were positive significant relationships among each independent variable. All variables are statistically significant and correlated among each other since all correlations between variables are positive.

However, the highest correlation value is between payment culture (PC) and perceived usefulness (PU) which is 0.845 and indicated a strong positive relationship. Further, a strong positive relationship also indicated between perceived security (PS) and payment culture with a correlation value of 0.793. In addition, payment culture also has a moderate positive relationship with perceived ease of use (PEOU) which is 0.652. Therefore, payment culture is greatly correlated with PS, PU and PEOU which means consumers' payment culture will affect their perception towards mobile payment. This supported by the previous study that stated the impact of payment culture included with uncertainty avoidance and coverage towards perceived security. The greater the uncertainty avoidance characteristic, the greater the need of security (Fan et al., 2018).

Meanwhile, the previous study also suggested that the improvement in coverage of mobile payment correlated with the perceived security which means there are more users and discourage the service providers to be illegal. Therefore, consumers will have a higher sense of security if there are more coverage or availability of merchants. In accordingly, it could be

determined that the payment culture of Malaysian consumers can be reflected on how they perceived on the usefulness of mobile payment.

Objective 3: To identify the most influential consumers' perception concern that influencing the mobile payment feasibility in Malaysia.

The last objective was to identify the most influential consumers' perception that influencing the mobile payment feasibility in Malaysia. Perceived security (PS) has the significant and the highest beta value of 0.111 in the regression analysis, which also determined it as the main consumers' concern in this study.

PS had a significant effect on trust, and trust predict the users' continuance intention (Kumar et al., 2018). Therefore, satisfaction of trust in mobile applications was the most vital quality feature that affects the consumers intentions to use (Ramadan, & Aita, 2018). Meanwhile, the security and privacy safeguards prepared are consumers' concern which did affected on their credibility. There was a great demand for security and valued greater than convenience (Rehncrona, 2018). Despite of having a mobile payment that is useful and easy to use, consumers are concerning on the security and demanding a safe mobile payment application. This also could be proven by the descriptive analysis, most of the respondents agreed that security affects their decision to use mobile payment. Hence, service providers should make improvements or maintain the safety level of their applications.

In conclusion, PS is the most influential consumers' perception that influencing the mobile payment feasibility in Malaysia.

Table 4: Summary of Inferential Analysis

Independent Variables	Pearson's Correlation	Multiple Regression		
	Result	Beta	p-value	Accepted Hypothesis
Perceived Security (PS)	0.582	0.111	0.000	$H1_1$: There is a significant relationship between consumers' perceived security and mobile payment feasibility.
Payment Culture (PC)	0.501	-0.024	0.301	$H2_0$: There is no relationship between consumers' payment culture and mobile payment feasibility.
Perceived Usefulness (PU)	0.486	0.005	0.782	$H3_0$: There is no relationship between consumers' perceive usefulness and mobile payment feasibility.
Perceived Ease of Use (PEOU)	0.507	0.063	0.000	$H4_1$: There is a significant relationship between consumers' perceived ease of use and mobile payment feasibility.

**Dependent Variable: Mobile Payment Feasibility

5.1 Discussion of Open-Ended Question

There was only one open-ended question asked in the end of the questionnaire. The respondents were questioned for suggestions of the mobile payment system improvements in Malaysia. Since it was not a required question, there were only few responses collected in the open-ended question. First, the consumers would like a greater secure mobile payment. The advancement and improvement of the security were requested by the consumers. Then, the coverage and availability of merchants is vital based on the respondents' perception. The consumers would like the mobile payment to be more general and a greater availability similar to China. However, the coverage issue is more critical in rural areas compared to the urbans. Besides, the mobile payments in the current market need a stable Internet connection for effective usage. However, the users always faced the connection problem while using mobile payment in Malaysia. The complicated steps and wide variety of mobile payment possibly the factors that affect the penetration progress. Therefore, there are respondents

suggested that the service providers should work within each other to create an all in one application. Unlike China market that monopoly by WeChat Pay and Alipay only, there are too many mobile payments in Malaysia market which makes the consumers confused while making payment and also affect the coverage at the same time. An example was given with the Touch 'n Go Digital which is not user friendly enough for its reload steps. Meanwhile, there were also compliments on the Touch 'n Go Digital fingerprint login feature which has increased the security. Culture is the current main issue for the mobile payment market. Consumers are not familiar with the new payment method and unfavourable to pay with it if no promotions or rewards are provided. To raise the public awareness and penetration of this technology, the cooperation among the stakeholders such as government, service providers and merchants is critical to increase the involvement and trending it among the young generation.

5.2 Limitation and Recommendations

Since the data collected through convenience sampling in this study, it was limited to generalize the results into a wider sample. Then, a larger sample size will indicate a result with greater accuracy. However, the limitation in time period for the data collection caused the researcher could only collect a sample size of 384 respondents in Johor area. Apart from the sample size, the result could not be applied to the whole Malaysia since there are different culture according to the states, but this study only focused in Johor. Furthermore, most of the mobile payment users are the young educated population, but it should not be limited to the particular population only since there is increasing penetration of mobile payment nowadays. Besides, the moderating effect of respondents' demographic did not discuss in this study. For example, how will the age or education level will affect the perceived security and in the relation with mobile payment feasibility.

According to the limitations mentioned, some recommendations are suggested as the improvement for the future study. Firstly, further studies may consider increasing the sample size and using simple random sampling method to increase the accuracy of data. Then, the location of data collection could be expanding into different states in Malaysia. Therefore, the implication of the study would be more suitable to represent Malaysia. In addition, it was suggested to extending the respondents' age range due to the increasing penetration of mobile payment in Malaysia. Alternatively, the future research could also target on the Generation X or even Baby Boomer and make comparison with the young population. Meanwhile, demographic profile could act as the moderator between the consumers' attitude and mobile payment feasibility.

Since the scope of the study is the mobile payment of Malaysia, the scope could be extending to other countries to get different findings in the future research. Besides, this study found that perceived security and perceived ease of use have significant relationship with the mobile payment feasibility in Malaysia while payment culture has a negative impact and perceived usefulness has no relationship at all. Thus, other constructs can be adding into the theoretical model in the future research as the consumers' attitude towards mobile payment feasibility is determined by a large number of determinants.

6. CONCLUSION

In conclusion, all research objectives were achieved in this study. A questionnaire survey regarding the impact of consumers' attitude towards mobile payment feasibility was conducted in the study. A new perspective was given to study the consumers' attitude which could be the foundation for the future study on mobile payment feasibility.

Based on the research findings, it showed that the perceived security is the most influential variable by the consumers while using the mobile payment. However, payment

culture in Malaysia such as uncertainty avoidance characteristic and low coverage of merchants gives a negative impact for the mobile payment penetration in this country. In accordingly, payment culture is highly related to other independent variables (perceived security, perceived usefulness and perceived ease of use). Hence, payment culture influenced on consumers' attitude for their intention to use or continuance usage of mobile payment.

Furthermore, a significant relationship found between PEOU and mobile payment feasibility which could be concluded that Malaysian consumers are seeking for a less complicated mobile payment system. Meanwhile, PU has no relationship with the mobile payment feasibility as it is not the consumers' consideration factor when using mobile payment. Therefore, promotions or rewards provided by the service providers are not the driver towards penetration of mobile payment in Malaysia.

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