

Factors Influencing Consumers' Perceived Usefulness of M-Wallet in Klang Valley, Malaysia

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ABSTRACT

In the 21st century, mobile wallet (M-wallet), as an innovative alternative payment, was transforming the way we live along with the technology advancement; however, its services were still considered in infancy stage in Malaysia. Therefore, the purpose of this research was to investigate the influence of convenience, confidentiality and social influence on consumers' perceived usefulness on M-wallet in Klang Valley to encourage the development of M-wallet. A questionnaire was developed and distributed to 384 respondents who have M-wallet usage experience. Multiple regression analysis was applied to derive the results the result of the analysis indicated that convenience and social influence had positive influence while confidentiality had no influence towards the perceive usefulness of M-wallet in Malaysia. Meanwhile, convenience was also accessed to be the highest influence. The finding is valuable to many M-wallet stakeholders and lends ideas for future research on such topics.

Keywords: Convenience, Confidentiality, Social Influence, M-wallet

1. INTRODUCTION

Technology has been shaping the behaviours of consumers and the ways of doing businesses. In the past, goods and services were traded in the form of barter trade and we gradually evolved to using cash then cards. Subsequently in this digital era, mobile devices have become a prominent product that follows us wherever we go while mobile wallet (M-wallet) is said to be a rising star to transform our payment method (Aydin & Burnaz, 2016).

M-wallet is a mode of payment that enables users to pay with a mobile device. In a study by Upadhayaya (2012), his summary on M-wallet is about having all the functions of a physical wallet into one smartphone. In Malaysia, there are M-wallet in the market

such as WeChat Pay, Grab Pay, AliPay and Samsung Pay.

The goals of M-wallet are to provide convenience and security (Singh & Rana, 2017). However, at the same time, they are also the main concerns of people while using any technology as the use of every technology is exposed to fraud, data theft, and stealing. It becomes more dangerous especially when the data contains significant financial information. These challenges have actually been curbed consistently with the improvement in M-wallet, especially in the aspect of convenience and security. Considerations such as verification and authentication issues and technological capabilities have been always the focus to help minimise the concerns. For example, according to Bank Negara, they have introduced the Interoperable Credit Transfer Framework (ICTF) and Real-time Retail Payments Platform (RPP) to manage resultant risks and enable secure and seamless mobile payments (Wei & Tsu, 2018).

According to Mun, Khalid & Nadarajah (2017), they studied the relationship of factors towards mobile payment adoption in Malaysia using Technology Acceptance Model (TAM) and the results found that perceived usefulness was the strongest determinant towards in affecting consumers' intention to use M-wallet. Therefore, this research would be extending the research to deeper details to look at factors that influence the perceived usefulness, which no other researcher has done.

Moreover, cashless society was a dream to the government and many organisations. There was an expectation that Malaysians should be using M-wallet to pay quickly, efficiently and effectively; but doubts or questions on its usefulness continued to exist. It was vital to understand deeper into the problem as a big pool of money has been spent by various parties such as developers, merchants, government or banks in persuading Malaysians to perceive and accept it into their lives.

The low adoption rate of M-wallet technology today may not necessarily be the caused by the usual factors past researches has focused on. Predictions of uptake of M-wallet may have over-emphasized on rational bases for technical side and this has actually led to inadequate attention to the social aspect. All in all, the difference of cash and mobile payment is only a matter of seconds while the added perceived value could be the trigger to adopt (Koenig-Lewis, Marquet, Palmer & Zhao, 2015). Therefore, a social factor is added in this paper to make a contribution to debate.

Understanding a wider perception of M-wallet helps all the participants of the mobile payment ecosystem ranging from developers, vendors to governments in designing sustainable strategies

1.1 Significance of research

The main aim of this study is to examine factors influencing consumers' perceived usefulness on M-wallet in Klang Valley. As mobile payment is getting considerably popular recently in many developed countries, this has led to an actual change in customer behaviour and business system (Bagnall et al., 2016). Therefore, there is a need to understand what customers' are seeing in this big transformation and to provide a better understanding of the determinants of factors that are perceived useful in M-wallet.

Having an understanding on what is perceived useful in M-wallets by Malaysians is valuable for the stakeholders. M-wallet developers, like Alipay and Samsung Pay, may use the study to develop effective marketing strategies to attract more users to use their applications. Moreover, as most of the companies and systems come from international, having feedbacks from the local may provide them areas of adjustments towards convenient functionalities or designs that are perceived useful by Malaysians. Additionally, this study also serves as a guideline to help new M-wallet start-up such as GrabPay and future developers to understand what Malaysians want in the applications. Furthermore, this study presents information to banks that provide credit cards and online services. They can discover what may motivate Malaysians to want to use M-wallet, allowing them to evaluate on the benefits that M-wallet has in order to improve their services. Additionally, it adds to merchants' understanding towards consumers' needs which they may consider to implement mobile payment systems in their stores.

Besides that, this study contributes to the Malaysia government such as Ministry of Innovation that would be keen to know more about digital economy and optimal use of emerging technology. It helps the government to realise the perceived use of M-wallet of the Malaysians and know how and where to improve or strengthen the service to help M-wallet in encouraging more users.

This study contributes to closing these gaps in the literature as it improvises TAM theory to see whether perceived usefulness is still relevant to technology acceptance today and what are the factors that are most perceived useful today in this generation. It can also make a comparison whether technical aspects or social aspects are more influential towards affecting their perception.

2. LITERATURE REVIEW

2.1 Perceived Usefulness

Perceived usefulness (PU) is one of the variables constructed in the technology acceptance model (TAM)(Davis, 1989) while TAM model is based on the theory of reasoned action (TRA) (Ajzen & Fishbein, 1980) that seeks to explain behaviour and the intention of using a technology. From the perspective of TAM, perceived usefulness is defined as the degree to which a person believes that using a specific application will enhance his performance experience (Redzuan et al., 2016). In other words, when an application is high in perceived usefulness, it leads to positive usage relationship where consumers would use again and prefer it over other payment methods (Umek, 2016; Davis, 1989).

According to Kristoffersen, Synstad & Sørli (2008), there is little empirical evidence of troublesome payment is blocking the development of M-wallet and Musa, Khan & Alshare (2015) has also found similar results that effort expectancy is not significant towards adoption. In other words, perceived ease-of-use is not usually reported as a determinant of adoption of mobile payment and many studies have shown that it is perceived usefulness that counts (Tai & Liu 2015). Therefore, this derives my dependent variable and in the context of payment system, convenience, confidentiality and social influence are generally the main constructs that have a substantial impact on perceived usefulness (Cheng & Hitomo 2017).

Perceived usefulness refers to consumers' perceptions regarding the outcome of the experience (Khayati & Zouaoui 2013). This means that if a technology that is not perceived to be useful, it is not likely to be accepted regardless of its careful implementation efforts while perceived usefulness may vary across individuals (Murthy & Mani 2013). Therefore, by knowing how Malaysians perceive usefulness on mobile payment, it ultimately leads to an understanding of M-wallet adoption.

2.2 Convenience

Convenience is one of the main reasons why technology exists – to bring convenience to life. It is proven to be at the forefront of a customer in evaluating perceived usefulness of a technology. From the perspective of self-determination theory, convenience is that users believe a technology is useful to their task completion. According to Hsu & Chang (2013), it is indicated that convenience is a factor unique to the technology because of its interactive and transactional abilities and it is a key motivation for technology acceptance.

In general, convenience can also be defined as an individual's preference for a convenient product or service and a way to determine whether a product or service is

convenient depends on time and effort (Khrais 2017). These can include the mental and physical effort required in the process and it is considered convenient if it saves time or lowers the cognitive, emotional and physical burdens for a user (Ambali & Raufu 2014).

The concept of convenience has been frequently mentioned by many customers desiring a service to be fast and simple (Tai & Liu 2015). In a payment context, convenience may refer to the speed and easiness during a transaction which impacts the perceived usefulness of the payment method (Hayashi 2012). In other words, if customers could exert fewer time and effort to facilitate a transaction, then the perceived usefulness of the payment method is higher.

Moreover, Hayashi (2012) examined the convenience by acquisition and execution. In a mobile payment context, this may refer to the accessibility of applications such as whether it is easy to set up and whether merchants accept the payment methods.

Paripunyapat & Kraiwanit (2018) in their research conducted in Bangkok also mentions that convenience and speed is the main reason financial technology adoption is gaining popularity.

2.2.1 Relationship between Convenience and Perceived Usefulness

Many studies revealed that convenience was a significant factor that affected intention to use a mobile technology. However, Chang, Yen & Tseng (2012) has extended TAM with convenience and found that convenience did not affect intention to use directly but instead influenced perceived usefulness first then only led to intention to use. There were also other studies conducted that presented that convenience was positively associated with perceived usefulness in the context of technology, such as online travel services (Li & Liu 2014), electronic textbooks (Baker-Eveleth & Stone 2015), e-communication (Norfolk et al. 2013) and mobile service (Abbas & Hamdy 2015). M-wallet's existence also provided convenience in saving time and effort, which it was, one of determinants towards affecting its perceived usefulness.

There were also researches proven that convenience positively influenced perceived usefulness such as in a study by Mbogo (2010), he studied factors that contribute to mobile payment adoption in Kenyan small and medium enterprises (SME). The research was conducted in qualitative approach with cross-sectional survey design and a sample of 410 respondents was collected from micro business entrepreneurs. The data was analysed with structural equation model (SEM) and the results concluded that convenience had a significant positive influence to consumers' perception of the value of mobile payment in Kenya.

Moreover, according Shaw & Sergueeva (2016), they studied specifically on

convenience and usefulness relationship in consumers' adoption of mobile commerce. The research was conducted in qualitative approach and descriptive statistics with a sample of 300 respondents. The data was analysed with structural model and measurement models, and the results concluded that convenience had a significant positive influence to perceived usefulness. They furthered noted that using mobile payment might be convenient as it permitted a quick choice of payments; but convenience could also be dependent upon the design of the app. In other words, complexity in setting up and learning were factors that could affect convenience in mobile payments. Additionally, the functionalities might not always related to technical aspects but also environment aspects such as lack of merchant acceptance which affected the users' perceived usefulness towards mobile payment services. Merchants' inefficiency and ineffective solutions would also impact on the convenience towards perceived usefulness (Hayashi 2012).

H₁: Convenience has a positive influence on consumers' perceived usefulness of M-wallet

2.3 Confidentiality

Confidentiality is closely equivalent to privacy. It is defined as the state of being kept secret or private, and some may also define confidentiality as the type of data that gets collected (Kowsalya 2017). Confidentiality plays significant role in mobile payment because in order for it to work, personal authentication information and card account information must be stored in the mobile application. Therefore, it may possess some threats like unauthorized users, intercept, leakage, guessing, hijacking or disguise. It is also common as well for confidential data to be categorized according to the amount and type of damage that could be done if it is leaked (Chen & Nath 2008). In other words, confidentiality is highly associated with the level of data information required to register and use a M-wallet and consumers' concern of negative consequences if the required data falls into unintended hand.

Alternately, some may define confidentiality as designs to prevent sensitive information from reaching the wrong people, while making sure that only the right people can get it (Shin et al. 2010). Confidentiality is often talked about in terms of a supplier or service provider and its customers and the agreements are applied to situations where someone trusted with personal data must safeguard this data from being released. In the context of payment systems, confidentiality is the property of an information system that ensures that transaction information cannot be viewed by unauthorized persons and only authorized users are allowed to access sensitive and protected data such as the payment card details (Chen & Nath 2008). While many mobile payment companies nowadays

have also placed significant focus to the security concerns, they have integrated advanced security such as authentication, audit, rooting detection, data restriction and safe data transmission in their applications (Lee et al. 2014). In other words, confidentiality is highly associated with the level of security solutions they have.

Furthermore, according Pousttchi & Wiedemann (2018), confidentiality can also be distinguished into subjective concept which refers to the degree a person believes that using a particular mobile payment procedure would be safe; while the subjective belief is correlated with the actual confidentiality. In other words, confidentiality is highly associated with consumers' belief whether the data is safe from M-wallet companies despite nothing has happened yet.

2.3.1 Relationship between Confidentiality and Perceived Usefulness

Confidentiality is very much close to perceived risk and people have fear in doing cashless payment as they are concerned with security and privacy aspects of such system (Roy & Sinha 2014). While in the latest research related to electronic payment systems, the perception of confidentiality was mostly associated with negative consequences that the consumers might suffer from data loss (Rizvi et al. 2017). Consequently, it was considered that confidentiality would influence perceived usefulness in adopting mobile payment systems.

According to Chong et al. (2016), confidentiality is found to be by far to be the most significant influence in using payment technology as customers care about how the information is protected against the passive monitoring. Therefore, when consumers believe that their details are kept in confidence such as with advanced authentication, this makes the service itself becomes more useful to their perception. On the other hand, when such concerns stop consumers, the procedure becomes less useful to the consumers.

There were also researches proven that convenience positively influenced perceived usefulness such as Roca, Garcia & Vega (2009)'s study on perceived usefulness towards online trading services, mediated by confidentiality and trust. The research was measured in using a seven-point Likert-type scale with a sample of 180 respondents and the data was analysed by partial least squares (PLS) path modelling. The results revealed that perceived usefulness was vital in online payment process, and confidentiality positively influenced perceived usefulness. The findings also suggested that confidentiality must be improved since consumers formed perceptions on confidentiality and when these perceptions were confirmed, they were more likely to use these online payment services particularly if the financial information was useful for their purposes.

Aside from online payment, there was also a study by Maqableh, Moh'd Taisir Masa, Shannak & Nahar (2015) that researched in electronic payment systems. The research was conducted in descriptive statistic using five-point likert-scales for data collection. A total of 214 responses were collected from consumers of MarkaVIP Company in Jordan and the data was analysed using structural equation modelling. The results found that confidentiality was proved by far the most significant positive influence on perceived usefulness in electronic payment systems. Additionally, it was explained that confidentiality could also be in subjective characteristics where it was defined as the degree to which a person believed that using a particular payment procedure would be secure and companies would not use their information for other purposes. Additionally, it was also found out that confidentiality in terms of vendors had positive influence on perceived usefulness on electronic payment systems (Aigbe & Akpojaro 2014). The findings suggested that consumers evaluated vendors before they performed electronic transactions and vendors' characteristics played an important role in facilitating the transaction. If people did their transactions with dishonest merchants, sensitive information was stored on unsecured databases and security threats existed even where data was perfectly secure in transmission.

On the other hand, according to Schnall et al. (2015), they studied confidentiality as factors influencing mobile health technology. Mobile health technology was a system for modifying health related behaviours and it could actually raise privacy concerns of consumers. The research was done in qualitative study using focus group interview methodology with a sample of 50 HIV patients in Spanish's nursing campus. The data was analysed in descriptive statistics and the results found that confidentiality was not a significant influence on mobile health technology. Additionally, the findings suggested a number of participants did not mind if information leaked as they believed that nobody would want to hack those information.

H₂: Confidentiality has a positive influence on consumers' perceived usefulness of M-wallet.

2.4 Social Influence

Social influence has been called in different names as social factors, subjective norms or social norms in different theories. It is defined as the change in behaviour that one person causes in another intentionally or unintentionally. Researches have long recognized social influence as one significant factor on consumer behaviour and no one in this world can fully escape the influence of others. The reason is due to a person's perception of the need to behave in a certain way to meet the social pressure and people change their ideas and actions to meet the demands of a social group (Haderi & Aziz,

2015). According to Stockman (2017), people choose to perform a behaviour, even if they are not themselves favourable toward its consequences, if they believe one or more important referents think they should use the new system, this makes them sufficiently motivated to comply with the referents. Under social recommendation model by Zhang et al. (2016), social influence can be classified as local-based and global-based.

Social influence plays a notable role in various domains of human behaviour, such as product and service consumption. One mainstream of the social influence research – social contagion theory believes that people in the same social group act similarly to each other and consumers tend to follow what their friends and families select (Herrera, Armelini & Salvaj 2015). Such source of influence can be regarded as the local information and it drives behaviour in many ways such as how people develop lifestyle choices and preferences and when they are taught more knowledge about it, these decisions are perceived more useful over others (Lwoga & Lwoga, 2017).

Moreover, social influence also drives human selection behaviours when numerous objects competing for limited attentions, which leads to the ‘rich get richer’ dynamics where popular objects tend to get more attentions (Pan, Hou & Liu 2017). Especially in the common context when selecting, for example, books, movies, restaurants and etc, consumers frequently look at publics’ decisions. These observations aggregating the choices and opinions of the whole population of the system can be recognised as the global information and they add into perceived usefulness for the simplest reason – the more people are using, the better the things are (Lwoga & Lwoga, 2017). Additionally, the way we pay things with Malaysian ringgit (RM) or cards is also conform to the norms of a group. Therefore, there is sufficiently reason to believe social influence positively influences perceived usefulness of M-wallet.

2.4.1 Relationship between Social Influence and Perceived Usefulness

One of the major limitations of in the original TAM model was the exclusion of social influence (Taherdoost, 2017). While it was then extended into a new model – TAM2 by Venkatesh & Davis (2000) to include social influence as one of the considerations towards perceived usefulness.

Many researches have then begun to test extended TAM and Calisir, Atahan & Saracoglu (2013) have proven that social influence did affect technology acceptance through perceived usefulness. Ramazani et al. (2013) further explained that it was due to social influence would positively enrich the image on the value of an innovation and the image would then positively influence perceived usefulness. According to Zhao, Stylianou & Zheng (2018), when assessing a technology’s usefulness, social influence can take place by taking referents’ opinions or observing others and mainly from family,

friends and colleagues.

Several studies have also later found that social influence had a positive influence towards perceived usefulness. This might explain why communication apps are so popular these days. As an illustration, according to Lamanauskas, Pribeanu & Iordache (2017), they studied social influence towards facebook use by Romanian and Lithuanian University students. The study was conducted with a sample of 1055 students and analysis was done using descriptive statistic with multi-group confirmatory factor analysis. The results found out that social influence positively influenced the students' perceived usefulness on Facebook.

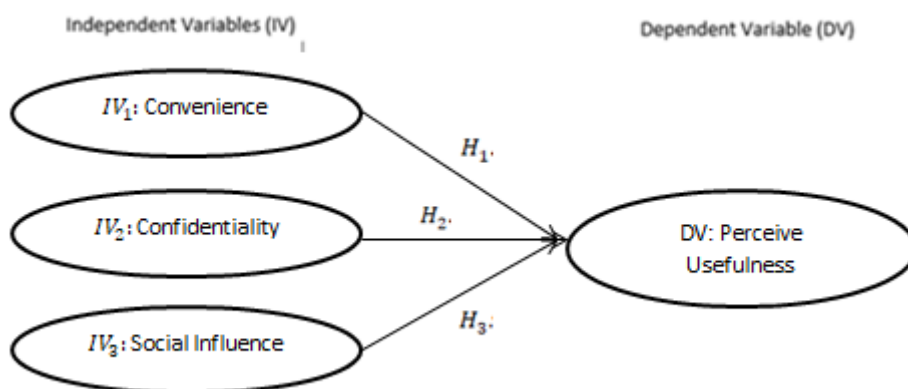
Similarly, the research on walk-in virtual environment (VE) by Tiainen, Kaapu & Ellman (2013), they studied social influence in VIP2M. VIP2M was a technological tool that created a virtual environment for prototyping a mobile working machine and constructing it in a walk-in virtual environment. The study was conducted on 25 males that have used VIP2M for occupational purposes using Presence Questionnaire and the results were analysed with one-way between-subjects ANOVA. The result found that social influence had weak influence on perceived usefulness.

Lastly, according to Haderi & Aziz (2015), they studied factors influencing Enterprise Resource Planning Systems (ERP) using Unified Theory of Acceptance and Use of Technology (UTAUT). The research was conducted in quantitative analysis with a sample of 120 users of PeopleSoft in Cape Town. Factor analysis was used and the results found that social influence had no influence on perceived usefulness of ERP.

H₃: Social influence has a positive influence on consumers' perceived usefulness of M-wallet.

2.5 Research Framework

Figure 2.1 Proposed Framework of Research



3. RESEARCH METHODOLOGY

3.1 Research Design

The nature of this study was a descriptive study. It was used to help investigating the variables' characteristics and describing relevant aspects of phenomenon of interest from a current situation (Kumar, Salim & Ramyah, 2012). By using this, researcher was able to describe the factors (convenience, security and social influence) influencing perceived usefulness on M-wallet and how significant were they in the relationship.

Quantitative research method was used for data collection to investigate the influence of convenience, security and social influence towards perceive usefulness of M-wallet in Klang Valley, Malaysia. It was a cross sectional study where the data was collected once at a particular time.

3.2 Sampling Design

Non-probability sampling technique was used in this study. The researcher collected information randomly from members of the population who were convenient to provide the data. In order to ensure the respondents were the targets of this research, the very first question was asked to identify whether they have had the experience of using M-wallet before.

The target population for this research was consumers living in Klang Valley, Malaysia. Consumers of any gender or status could be one of the respondents as demographic characteristics were disregarded in this study as it would be biased to one social category where in actual consumers could be can be at all social groups. In fact, this research aimed to target at variety types of consumers for data integrity. Having said that, the population was still narrowed down to Malaysians that were 18 years old and above for better quality of data as children might not have phones and mentality readiness to answer the questionnaire.

Data collection was done through online survey whereby a questionnaire was developed and distributed to 384 respondents who have M-wallet usage experience. In this study, primary data was the surveys and electronic questionnaires was distributed to collect the data., participants were asked to answer the questions related convenience, security, social influence and perceive usefulness of M-wallet in Klang Valley, Malaysia. By using the Google Survey Forms design, there are no regional restrictions on the distribution of questionnaires on Internet, and more surveyed areas can be reached, which is conducive to the comprehensiveness of the data.

3.3 Instrumentation

Data for the study were obtained by distributing the set of questionnaires to the target sample group. Self-administered online questionnaire were used to conduct the study. It will consist of five sections. A 5-point Likert scale (1 = strongly disagree, 5 = strongly agree) were used to measure Section A, Section B, Section C and Section D of the questionnaire. Section A of the questionnaire consist of 5 questions related to convenience. Section B of the questionnaire 5 items used to measure confidentiality. Section C of the questionnaire refers to the 5 questions used to measure social influence. Section D of the questionnaire refers to the 5 questions used to measure social influence. Section E of the questionnaire refers to the 7 questions used to obtain the demographic information and general information from the respondents.

The result revealed that the Cronbach's Alpha coefficients for all the variables tested were relatively high: convenience (0.956), confidentiality (0.895), social influence (0.959) and perceive usefulness (0.990).

3.4 Assumptions of Parametric

Before choosing a statistical test to apply to the data collected, the researcher addressed the issue of whether the data are parametric or not. Statistical tests are used to analyse some aspect of a sample. The assumptions of parametric were met when: sample data are continuous and measurements met the minimum sample size requirement (Saunders, Lewis and Thornhill, 2016), the ratio of cases/samples (N) to variables (IV) exceeded 5:1 (Osborne and Costello, 2002), more than 70 percent of the questionnaire can be measured using scale, there was a linear relationship among the two variables and data collected were normally distributed based on the results obtained from the normality test conducted.

3.5 Statistical Analysis

The data collected from the questionnaires were analysed through a series of statistical test. The data collected were analysed using the SPSS statistical analysis software for Windows. The statistical procedures for quantitative research include reliability analysis, normality test, descriptive statistics, Pearson's correlation and multiple regression analysis.

4. RESULTS AND DISCUSSION

4.1 Descriptive Analysis

Descriptive analysis was used to analyse the targeted respondents' demographic information using frequency and percentage. The basic information of respondents was highly important because it helped us to know who were the ones contributing value to the research. The general information included: gender, age, ethnic, employment status, education level and income level. The total number of respondents who participated in the survey was 384 while 54.2% of the respondents were male and 45.8% of respondents were female.

Majority of the respondents were between 18 – 24 years old. 44.0% of respondents were between 18 – 24 years old, 24% of respondents were between 25 – 31 years old, 14.6% of respondents were between 32 – 38 years old, 10.9% of respondents were between 39 – 45 years old, 4.7% of respondents were between 46 – 52 years old and 1.8% of respondents were above 53 years old.

Among the respondents, 67.4% of respondents were Chinese, 20.3% of respondents were Malay, 9.9% of respondents were Indian, 1.3% of respondents were Korean and 1.0% of respondents were Indonesian.

Majority of the respondents were students. 44.3% of respondents were students, 41.4% of respondents were employed, 11.2% of respondents were self-employed, 2.1% of respondents were unemployed and 1.0% of respondents were retired.

Most of the respondents received undergraduate education level. 39.8% of respondents received undergraduate education level, 29.7% of respondents received foundation or diploma education level, 20.8% received secondary school education level and 9.6% of respondents received postgraduate education level.

Majority of respondents earned less than RM1000 per month. 32.8 of respondents earned less than RM1000 per month, 27.9% of respondents earned RM4001 above per month, 16.9% of respondents earned between RM3001 – RM4000 per month, 11.7% of respondents earned between RM2001 – RM3000 per month and 10.7% of respondents earned between RM1001 – RM2000 per month.

4.2 Pearson’s Correlation Analysis

Table 4.1 Correlation Analysis

Variable	SQ	SR	CS	PU
Convenience CV)	-			
Confidentiality (CF)	.642**	-		
Social Influence (SI)	.425**	.369**	-	
Perceive Usefulness (PU)	.879**	.607**	.500**	-

** . Correlation is significant at the 0.01 level (1-tailed).

The result of Pearson’s correlation was as shown as in Table 4.1. Based on the results, the sig. of correlation represented the p-value. Between independent variables (convenience, confidentiality and social influence) and the dependent variable (perceived usefulness), as all of them was less than 0.05, it proved that there was a significant relationship between the variables. Moreover, from the results, it has shown positive correlation coefficient. This indicated the relationship between each independent variable and dependent variable were positively related.

Convenience and perceived usefulness had the highest value of correlation of 0.879 and this indicated a very strong positive relationship.

Confidentiality and perceived usefulness had the second highest value of correlation of 0.607 and this indicated a strong positive relationship.

Social influence and perceived usefulness had the third highest value of correlation of 0.500 and this indicated a moderately strong positive relationship.

4.3 Multiple Regression Analysis

4.3.1 Model Summary

Table 4.2 Regression Analysis: Model Summary^b

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate	Durbin-Watson
1	.890 ^a	.793	.791	.60154	2.061

a. Predictors: (Constant), Social Influence, Confidentiality, Convenience

b. Dependent Variable: Perceived Usefulness

According to Table 4.2, the computed R Square is 0.793. This indicated that convenience, confidentiality and social influence accounted for 79.3% of the variation in perceived usefulness towards M-wallet in Klang Valley, Malaysia. While 20.7% of the variance in factors influencing perceived usefulness towards M-wallet in Klang Valley remained as unknown factors.

4.3.2 Analysis of Variance

Table 4.3 Regression Analysis: ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	526.449	3	175.483	484.968	.000 ^b
Residual	137.501	380	.362		
Total	663.950	383			

a. Dependent Variable: Perceived Usefulness

b. Predictors: (Constant), Social Influence, Confidential, Convenience

According to Table 4.3, the computed value for significance was shown. The significance regression equation was constructed as [F (3, 380) = 484.968, P<0.05]. Since alpha, α value is 0.05 and the P-value is 0.01 P-value is less than α value (0.000 < 0.005) and the model was fit to the analysis.

4.3.3 Coefficients

Table 4.4 Regression Analysis: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
	(Constant)	-.172	.139		
Convenience	.804	.032	.785	24.858	.000
Confidential	.059	.038	.047	1.540	.124
Social Influence	.213	.037	.149	5.723	.000

a. Dependent Variable: Perceive Usefulness

According to Table 4.4, the β -Value represented the regression coefficient that measured a unit change in the dependent variable when independent variable changes. The greater β -value, the greater the influence of independent variable is on the dependent variable. By comparing the β -Value of all three independent variables, it has shown that convenience ($\beta = 0.785$) had the greatest influence on perceived usefulness, followed by social influence ($\beta = 0.149$) and confidentiality ($\beta = 0.047$).

H₁: Convenience has a positive influence on consumers’ perceived usefulness of M-wallet.

As shown in Table 4.4, convenience ($\beta = 0.785$, $n = 384$, $p < 0.05$) had a significant positive influence on consumers’ perceived usefulness to use M-wallet in Klang Valley.

Hence, research hypotheses 1 (H_1) was not rejected.

The results were similar to Li & Liu (2014)'s study on convenience influencing perceived usefulness in online travel services, Baker-Eveleth & Stone (2015)'s study on convenience influencing perceived usefulness in electronic textbooks, Norfolk et al. (2013)'s study on convenience influencing perceived usefulness in e-communication and Abbas & Hamdy (2015)'s study on convenience influencing perceived usefulness in mobile services.

Moreover, the results supported the research done by Mbogo (2010) to confirm convenience was positively influencing perceived usefulness in mobile wallet within micro-businesses in Kenya.

However, the results contradicted to the research done by Shaw & Sergueeva (2016) that found convenience and perceived usefulness were different constructs in using mobile wallet.

H_2 : Confidentiality has a positive influence on consumers' perceived usefulness of M-wallet..

As shown in Table 4.4, confidentiality ($\beta = 0.047$, $n = 384$, $p > 0.05$) had no influence on consumers' perceived usefulness to use M-wallet in Klang Valley. Hence, research hypotheses 2 (H_2) was rejected.

The results were similar to Schnall et al. (2015)'s study on confidentiality influencing perceived usefulness in mobile health technology. The impact of confidentiality was also not significant in influencing respondents' perceived usefulness to use M-wallet in Klang Valley.

However, the results contradicted to the research done by Roca, Garcia & Vega (2009); Chong et al. (2016) that found confidentiality was by far the most significant influence in using online trading technology.

Additionally, the results also contradicted to the research done by Aigbe & Akpojaro (2014) that found confidentiality was a significant positive influence on perceived usefulness on electronic payment systems.

H_3 : Social influence has a positive influence on consumers' perceived usefulness of M-wallet.

As shown in Table 4.4, social influence ($\beta = 0.149$, $n = 384$, $p < 0.05$) had a significant positive influence on consumers' perceived usefulness to use M-wallet in Klang Valley. Hence, research hypotheses 3 (H_3) was not rejected.

The results were similar to Lamanauskas, Pribeanu & Iordache (2017)'s study on social influence influencing perceived usefulness in Facebook. The impact of social influence was also significant in influencing respondents' perceived usefulness to use M-wallet in Klang Valley.

The results also supported Tiainen, Kaapu & Ellman (2013)'s study on social influence influencing perceived usefulness in walk-in virtual environment (VE) despite they found weak positive influence.

However, the results contradicted to the research done by Haderi & Aziz, (2015) that found social influence was a negative influence on perceived usefulness on police officers to use the POLNET system in Turkey.

Additionally, the results also contradicted to the research done by Hu et al. (2013) that found social influence had no influence on perceived usefulness in computer technology adoption in women. Also, contradicted to the research done by (Haderi & Aziz, 2015) that found no influence on perceived usefulness in using ERP.

5. CONCLUSION

The purpose of this research was to investigate the influence of factors on consumers' perceived usefulness to use M-wallet in Klang Valley, and it has been accomplished successfully. Through the data analysis and findings, all the three research objectives have been met.

The first objective was to investigate the influence of convenience on consumers' perceived usefulness to use M-wallet in Klang Valley. Based on the results found, it was understood that convenience had positive influence in that relationship.

The second objective was to investigate the influence of confidentiality on consumers' perceived usefulness to use M-wallet in Klang Valley. Based on the results found, it was understood that confidentiality had no influence in that relationship.

The third objective was to investigate the influence of social influence on consumers' perceived usefulness to use M-wallet in Klang Valley. Based on the results found, it was understood that social influence had positive influence in that relationship.

5.1 Implications

The findings of this research were useful to M-wallet companies and developers to understand better the determinants of factors that are perceived useful in M-wallet in order to improve their applications to what Klang Valley consumers really want from it. After understanding consumers' perception, it is then possible to develop marketing strategies that are effective to promote their applications with good images. Instead of learning consumers internationally, it is important to make some concessions to local perception too.

Firstly, convenience had the greatest influence among other independent variables in influencing consumers' perceived usefulness to use M-wallet in Klang Valley. The more convenient is using M-wallet, the more likely one would perceive it as useful. Therefore,

engineering team in M-wallet companies may focus on further innovating and enhancing convenience factors to improve consumers' perception such as the transaction speed, time and effort to set up and learn to use or even merchants' accessibility. Additionally, there are still many other factors under "convenience" where they can deep-dive as it is the most crucial variable in influencing consumers' perceived usefulness.

Secondly, social influence also had positive influence in influencing consumers' perceived usefulness to use M-wallet in Klang Valley. The more people (families, friends or other consumers) are using M-wallet, the more likely one would perceive it as useful. Therefore, marketing team in M-wallet companies may think of ways to influence consumers by using people surrounding them. They may think of how to ask consumers who are using M-wallet to persuade consumers who are not using M-wallet yet, such as by giving them rewards for inviting friends to download and use. The impact of social influence should not be overlooked as studies have shown that younger generations in Malaysia today tend to follow trend, in fact, Generation Z always listen to social influencers' opinions in Twitter, Instagram or Youtube and they will be the future new consumers.

5.2 Limitation and Future Research

In this research, there were several limitations that the researcher did not focus where future researchers may explore the areas further.

The first limitation in this research was that the researcher only focused on respondents living in Klang Valley. As consumers may have different perception in different locations, therefore, the results were not generalizable to other states and countries. Future researchers may carry out researches outside Klang Valley such as Johor, Sarawak or Pahang to test the results.

The second limitation in this research was the R-square value computed was 0.793 (79.3%) that the independent variables had influence on perceived usefulness and it was explained by unknown factors. Therefore, there were still 0.207 (20.7%) of the factors yet to be discovered and future researchers may look into them to have a more holistic picture and get deeper insights.

The third limitation in this research was the language used was only in English. Although English is an international language, it is not the most spoken or used language. There may be people who do not understand and participate in this research, therefore, future researchers may produce similar researches in different languages such as Bahasa Malaysia, Chinese or Tamil. This could overcome the language barrier and reach to more readers.

Moreover, due to the research's objectives, the results were to find Malaysian's perception as a whole, regardless their gender, age, races or any demographic characteristic. While the results found were mainly from respondents age 18 – 24 years and Chinese, future researchers may target more specifically in different age groups like Generation X, who were born in between 1965-1967 or Baby Boomers, who were born in between 1946-1964; or target different races like Indian or Malay.

Additionally, due to the research's objectives, the results were conducted on only consumers that have used M-wallet before. Future researchers may explore answers from people that have not used M-wallet before to obtain their expectations. This will help to understand the gap between consumers' expectations and consumers' perceptions to know whether M-wallet is identical or far different from what people want.

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