A Study on the Acceptance of E-Wallet Apps Usage Amidst Mobile Phone Users in Klang Valley

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Abstract

Despite the growing usage of smartphone, not many Malaysians are able to park money in e-wallet accounts and E-wallet is only being reliant on cashbacks and subsidies for the users to use the apps. The objective of this research is therefore to determine the intention of mobile phone users towards the e-wallet system from the point of the current mobile phone users in Malaysia, based on the Unified Theory of Acceptance and Use of Technology (U-TAUT). As to explore the relationship between the variables, the study employed Pearson correlations, reliability tests, and descriptive analysis. The finding revealed that perceived of trust leads to a very strong and positive significant relationship towards behavioural intention to use e-wallet among mobile phone users. The researchers recommended that the results would serve as a guide for developers of mobile e-wallets to invent a good performance, easy to use, and safe e-wallet service for the user at a fair price, in other words, that meets the needs and expectations of today's mobile phone users in Klang Valley.

Keywords: e-wallet, mobile phone user, UTAUT

1.   INTRODUCTION

Among the other functions, technological advances coupled with the use of smartphones have enabled purchasing and payment transactions through mobile phones. This phenomenon exists internationally and gives more versatility and efficiency to individuals in carrying out their everyday activities. E-wallet is a short form of electronic wallet. According to Pahwa (2020), E-wallet is an online-prepaid account used whenever appropriate to store cash and transact online and offline via a computer or a smartphone. E-wallet is a pre-equipped electronic wallet that clients use to transact instantly, like a real wallet (and securely). In comparison to bank accounts, e-wallet is considered a fast-digital transaction mode (Pahwa, 2019). Besides that, it is possible to describe an e-wallet as an electronic or online system that allows transactions to be made through a computer or smartphone.

In the past few years, Malaysia has been a hotbed for e-wallet developers. Boost, Touch and Go e-wallet, Paypal, Grabpay are the example of the e-wallet provider leading in

Malaysia. However, according to Banking on the e-wallet in Malaysia (2018), the market of these e-wallet services is still on its infancy with use cases primarily in food and beverage as well as in transportation sector.

Thus, despite the growing usage of smartphone, Shasitiran (2019) claimed that still, not many Malaysians are able to park their money in the e-wallet accounts, especially when people are already complaining about the increasing cost of living. For some Malaysians, putting extra money in e-wallet account is a burden for them as they know some of the sectors are still using cash instead of the e-wallet apps. Cash is accepted everywhere, while the digital payments are not. This will surely turn to be much easier for people to avoid using e-wallet in the future with the economic goals set by the government.

With the current sustainability of e-wallets, which is solely being reliant on the cashbacks and subsidies, therefore, this study helps to fill in the gap by identifying which factors that contribute towards the acceptance of e-wallet usage among Malaysians in Klang Valley. The Unified Theory of Acceptance and Use of Technology (U-TAUT) with perceived of risk and perceived of trust are taken based on proposition by Pradibta (2012) into the model as to determine the significance factors that influence the acceptance of e-wallet usage.

Therefore, the main objective of this study is to identify the factors contribute towards acceptance of e-wallet usage among Malaysians in Klang Valley by using U-TAUT Model by identifying the relationship among the constructs in U-TAUT Model, as well as to identify the influence of the behavioural intention to use e-wallet among Malaysian.

2. LITERATURE REVIEW

2.1 Definition E-Wallet

According to Banking on the e-wallet in Malaysia (2018), mobile e-wallet started its step in Malaysia in 2016 with the number of approved non-banks in Malaysia was only 25. It has increased rapidly in 2018. By 2020, there were more than 48 e-wallet apps in Malaysia, which consisted of 43 non-banks and 5 banks. An e-wallet is an electronic or online system that allows users to perform transactions using a computer or smartphone. In making payments, most e-wallets, including credit or debit cards, are connected to the user's bank account. They are typically password-protected and some need a specific identification. These days, e-wallets can be used to pay for almost everything, including food, clothing, airline tickets, electronics, and more. In Malaysia, e-wallets are in a growing trend. Despite concerns about cyber-security, an increasing number of people are recorded to use digital wallets to pay for bills, food, tolls, gasoline, groceries, and retail purchases (Dayang Norazhar, 2019).

2.2 The Unified Theory of Acceptance and Use of Technology (UTAUT)

The research model was designed to assess whether the technology knowledge is appropriate to consumers. Davis (1986) first proposed the Technology Acceptance Model (TAM) as a way to predict computer users' behaviour. Davis et al. (1989) claimed that the model uses the construct perceived usefulness (PU) and perceived ease of use (PEOU) to predict behavioral intention attitude, and users' information technology.

In addition to TAM, Venkatesh et al (2003) introduced the Unified Theory of Acceptance and Use of Technology, or U-TAUT, which is used to describe motivation for using technology. U-TAUT theory was developed through a comprehensive synthesis and an integration of the Theory of Reasoned Action (TRA), the Technology Acceptance Model (TAM), Motivational Models (MM), Theory of Planned Behavior (TPB), Combined TAM and TPB (C-TAMTPB), the Model of the PC Utilization (MPCU), Innovation Diffusion

Theory (IDT) and Social Cognitive Theory (SCT). According to Venkatesh et al. (2003), U-TAUT has four constructs that affect technology intention and use of performance expectancy, effort expectancy, social influence, and facilitating conditions. Based on the U-TAUT, performance expectancy, effort expectancy, perceived of risk, and social influence affect the behavioural intention to use the technology, while the behavioural intention and perceived of trust determine the use of technology.

- According to Venkatesh et al.(2003), performance expectancy refers to how customers assume that using electronic payment systems can support and provide an advantage in performing online transactions, such as in terms of speed, protection, and convenience of transacting.

  Hypothesis 1: There is significant relationship between performance towards behavioural intention to use e-wallet amidst mobile phone users in Klang Valley.

- Consumers' perceived ease of use of electronic payment systems in online transactions on e-commerce sites is characterised as effort expectancy. It also refers to a device that is simple to comprehend and use without requiring any special knowledge (Venkatesh et al., 2003; Zhou et al., 2010).

  Hypothesis 2: There is significant relationship between effort expectancy towards behavioural intention to use e-wallet amidst mobile phone users in Klang Valley.

- The degree to which a person believes the importance of others to think he or she can use the method is referred as social influence (Venkatesh et al, 2003). Gu, Lee and Suh (2009) found that SI had no significant impact on behavioural intention to use mobile applications. However, Szmigin and Bourne (1999) claimed that a consumer's decision to adopt any payment method depended heavily on the number of consumers and merchants using it.

  Hypothesis 3: There is significant relationship between social influence towards behavioural intention to use e-wallet amidst mobile phone users in Klang Valley.

- Consumers assume that a system will function in accordance with procedures and their expectations, which is described as perceived trust. This construct proposes four questions, which focus on the users trust regarding the process of mobile payment application. (Kim et al, 2009).

  Hypothesis 4: There is significant relationship between perceived of trust towards behavioural intention to use e-wallet amidst mobile phone users in Klang Valley.

- According to Muda et.al (2015), perceived of risk is defined as the potential for loss in pursuing a desired outcome while engaging in online shopping; it is a combination of uncertainty with the possibility of serious outcome (Ko et al., 2004). The generation of anxiety and stress for consumers who feel uncomfortable using the Internet, the absence of interaction and social contact with other people as well as the security of payment.

  Hypothesis 5: There is significant relationship between perceived of trust towards behavioural intention to use e-wallet amidst mobile phone users in Klang Valley.

2.3   Behavioural Intention

According to U-TAUT, a person's attitude towards behaviour is defined as an individual's positive and negative feeling about performing the target behaviour, while subjective norm means a person's perception that most people who are important to him or her thinking he or she should or should not perform the behaviour in question. Intention to use technology is a central concept in U-TAUT (Venkatesh et al., 2003). Intention alone has been studied in the context of the theory of reasoned action (Fishbein & Ajzen, 1975) and they found that an individual's attitude towards behaviour is a driving factor toward that an individual's actual behaviour.
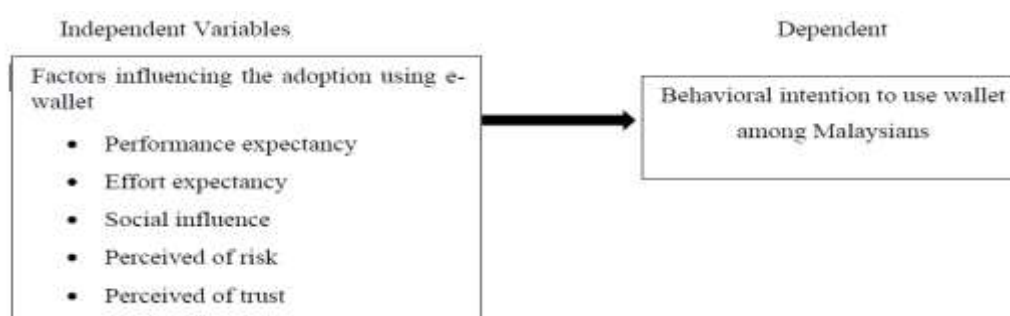
2.4   Proposed Conceptual Framework

Figure 1: The Conceptual Framework (Pradibta, 2012).

3.   METHOD AND DATA COLLECTION

A descriptive research design using the quantitative approach through cross sectional study is used to explain the research attributes. For the purpose of this study, researchers used non-probability sampling with convenience sampling method. Convenience sampling was used and the questionnaire instrumentations were adopted from the U-TAUT literatures. Reliability tests, descriptive analyses and Pearson correlations were used to explore the relationship between variables.

Questionnaires for this study comprise of three sections. Each section contains questions and measured variables to meet research objectives. The questionnaire is divided into three (3) sections. In section A, the questions are more related to demographic information such as gender, age and types of e-wallet. Next, in section B, the questions are on the acceptance factor of e-wallet usage such as performance expectancy, effort expectancy, social influence, perceived of trust and perceived of risk. Lastly, in section C, the questions are about the user's behavior intention of e-wallet usage. The instrument is structured in the modified Likert scale on a 7-pointed scale, started from "strongly disagree", "disagree", through "somewhat disagree", "neutral", to "somewhat agree", "agree" and "strongly agree". 440 questionnaires were distributed to the mobile users in Klang Valley via Google Form Links. From the 440 questionnaires distributed, a total of 420 responses were received and only 400 were usable for the analysis. The collected data were then processed and analysed using Statistical Package for the Social Science (SPSS).

4.   FINDINGS

4.1   Reliability Analysis

The reliability of a measure was established by testing for both consistency as well as the stability (Sekaran & bougie, 2010). According to Salkin (2009), the reliability score for the variable should be above 0.6. This analysis of reliability performance expectancy, effort expectancy, effort expectancy, social influence, perceived of trust and perceived of risk was acceptable and well ready for further inferential analysis.

Table 1 Reliability Analysis

Items	Cronbach's Alpha	No of Items
Performance expectancy	.961	5
Effort expectancy	.951	4
Social influence	.950	4
Perceived of trust	.902	6
Perceived of risk	.967	5
Behavioral Intentions	.943	3

4.2   Demographic profile

The table 2 below shows that the majority of the respondents are females with 61.3 percent (n = 245), as compared to male with 38.8 percent (n = 155). On the other hand, among those respondents, 48.0 percent (n = 192) are in the range of 18–25 years old, 16.8 percent (n = 67) are in the range of 26–30 years old. Meanwhile 12.5 percent (n = 50) are in the range of 31–35 years old, 10.8 percent (n = 43) are in the range of 30-40 years old and 12.1percent (n = 48) are in the range of above 40 years old. The derivation from the result showed that most mobile phone users that use the e-wallet apps are youngsters, aged from (18 to 25 years). The table also shows marital status of the respondents that the single respondents is the highest, with 61.8 percent (n = 247) followed with married respondents with 38.3 percent (n = 153). Majority of these respondents are the e-wallet apps users as the result in Table 2 shows that 84 percent (n=336) opposed 16 percent (n=64) users are not using the e-wallet apps in their daily life activities.

Table 2 Demographic Profile

	Frequency	Percentage
Gender		
Male	155	38.8
Female	245	61.3
Age		
18 - 25 years old	192	48.0
26 - 30 years old	67	16.8
31 - 35 years old	50	12.5
36 - 40 years old	43	10.8
> 40 years old	48	12.1
Marital Status		
Married	153	38.3
Single	247	61.8
Are they e-wallet apps user?		
Yes	336	84.0
No	64	16.0

4.3   Mean and Standard Deviations

There are five independent variables in this study which are performance expectancy, effort expectancy, social influence, perceived of trust and perceived of risk. However, the most important factor in using the e-wallets apps towards behavioral intention amidst mobile phone users is the performance expectancy. The mean of the performance expectancy as shows in Table 3 is 5.73 and the standard deviation is 1.289.

Table 3: Mean and Standard Deviation

	Mean	Std. Deviation
PERFORMANCE EXPECTANCY	5.73	1.289
EFFORT EXPECTANCY	5.47	1.395
SOCIAL INFLUENCE	3.51	1.519
PERCEIVED OF RISK	5.43	1.217
PERCEIVED OF TRUST	5.41	1.401

4.4   Correlation Analysis

Table 4 presents the results of the Pearson's Correlation coefficient which is a statistical measure of the strength and direction of the association that exist in performance expectancy, effort expectancy, social influence, perceived of trust and perceived of risk towards behavioral intentions in using e-wallets apps amidst mobile phone users. The findings indicated that there is a significant positive relationship between five independent variables (performance expectancy, effort expectancy, perceived of trust and perceived of risk) and the dependent variable (behavioral intentions) with at p>.000. Table 5 provides the results of the hypotheses testing.

Table 4: Correlation analysis

		BEHAVIOURAL INTENTION
PERFORMANCE EXPECTANCY	Pearson Correlation	.756**
	Sig. (2-tailed)	.000
	N	400
EFFORT EXPECTANCY	Pearson Correlation	.747**
	Sig. (2-tailed)	.000
	N	400
SOCIAL INFLUENCE	Pearson Correlation	.113*
	Sig. (2-tailed)	.024
	N	400
PERCEIVED OF RISK	Pearson Correlation	.475**
	Sig. (2-tailed)	.000
	N	400
PERCEIVED OF TRUST	Pearson Correlation	.808**
	Sig. (2-tailed)	.000
	N	400

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the level 0.05 level (2-tailed)

Table 5: Summary of Hypotheses Results

	Hypothesis	Result
1	There is significant relationship between performance expectancy towards behavioural intention to use e-wallet among Malaysia.	Accepted
2	There is significant relationship between effort expectancy towards behavioural intention to use e-wallet among Malaysia.	Accepted
3	There is significant relationship between social influence towards behavioural intention to use e-wallet among Malaysia.	Accepted
4	There is significant relationship between perceived of risk towards behavioural intention to use e-wallet among Malaysia.	Accepted
5	There is significant relationship between perceived of trust towards behavioural intention to use e-wallet among Malaysia.	Accepted

5. DISCUSSION

This study found that perceived trust has the strongest significant relationship towards behavioural intentions in using e-wallets apps amidst mobile phone users. In other words, greater perceived trust on the e-wallet developers motivates mobile phone users to generate more intention to use the e-wallet apps. It shows that most mobile phone users still have doubts about the e-wallet apps since e-wallet apps usage in Malaysia is still linking to the concerns of trustworthy and reputable platform (Lim et al., 2019). Security and trust are hygiene factors too. Lack of security and trust will be perceived as barriers to adoption of the mobile wallet. Therefore, the above findings aligned with the study when mean of the items in Perceived of trust which the mobile phone users believed and trust that using e-wallet apps will save their time and feel secured in using the apps is the highest among other items (M= 5.56, SD = 1.505). Since trust is proven to have a significant relationship on behavioural intentions in using e-wallets apps, the app developers in Malaysia as well as the government should come up with some concrete measures to build strong consumer's trust in order to further accelerate the growth of Malaysia's cashless system.

This study has validated the use of U-TAUT model to investigate the acceptance of E-Wallet apps usage amidst mobile phone users in Klang Valley. Moreover, with the combination of two additional variables from the original -TAUT which are perceived of risk and perceived of trust, will provide in-depth insight regarding the successful and the failure of the acceptance of E-Wallet apps usage. From the managerial implication, the study confirmed the importance of these five variables as the main determinants in order to increase the adoption of mobile payment application. As for a further research, demographic profile can be the moderating factor in exploring more the behavioural intention of the mobile users in using the e-wallet apps.

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