Available online at
https://borneoakademika.uitm.edu.my

Borneo Akademika
Volume 6 (1) June 2022, 71- 78

e-ISSN: 2735-2250

https://doi.org/10.24191/BA/v6i1/80379

Factors Associated with the Adoption of E-Wallet among Students

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Received Date: 1 February 2022
Accepted Date: 9 May 2022
Published Date: 3 June 2022

ABSTRACT

With the advent of new technology, Malaysia is now experiencing an enormous activity in the usage of digital payments for good and services especially for financial transactions. Several shoppers around the world are now preferring cashless transactions when they go for daily shopping. This has led to the implementation of online transactions as payment tools which can be illustrated through the existence of credit cards, debit cards, and e-wallets payments. Generally, e-wallets act as a new financial transaction in a digital platform that holds the same functions as a traditional wallet. As internet users are growing rapidly day by day, this indicates the adoption of e-wallets will become more popular, especially among young generations. It is easier for the young generation such as the students to adapt well to technological advancement due to their ability and acceptance of today's trends. Therefore, this study aims to investigate the factors associated with e-wallet adoption among students. The current work utilized an extended version of the Technology Acceptance Model (TAM) and Unified Theory of Acceptance and Use of Technology (UTAUT) to analyze the variables in this study. Three variables were identified as the factors that influence the adoption of e-wallets among students: Perceived Usefulness (PU), Perceived Ease of Used (PEOU), and Social Influences (SI). Results from the current work indicated that PU, PEOU, and SI are associated with e-wallet adoption among students. Significantly, the government played an important role in influencing people's adoption by creating incentives and implementing policies. Hence, the government may also take part in enhancing the business industry on e-commerce towards e-wallet adoption.

Keywords: e-wallet; perceived usefulness; perceived ease of used; social influences

INTRODUCTION

E-wallets act as virtual wallets that can be used to make payments for goods and services through the application on their smartphone (Shakirah, 2020). Payment can be made virtually regardless of time and place, and people can make payments in purchasing goods and services. This is very convenient. during the lockdown period as they could avoid the need to withdraw cash from the ATM. Furthermore, e-wallets have resulted in beneficial factors which give individuals a sense of comfort, convenience, and speed capabilities in making transactions anywhere and anytime (Liébana-Cabanillas et al., 2014 as cited in Karim et al., 2020). The options available for e-wallet

applications are endless and users are free to use more than one e-wallet account. Malaysia has a variety of e-wallets applications such as Boost, GrabPay, Touch and Go, Maybank E-wallet (MAE), Bigpay, RazerPay, ShopeePay, Setel (by Petronas), etc. Cash can be transferred into e-wallets through a bank account as such debit cards, and credit cards through online banking platforms (Lee, 2020).

Figure 1. Survey 2020 E-Wallet Usage in Southeast Asia

The Coronavirus outbreak has led to an increase in the usage of e-wallets, especially during the Movement Control Order (MCO). During this period, people have limited movement and prefer to do online purchases through a variety of delivery services. During the pandemic, Malaysia had the highest percentage of e-wallets usage in Southeast Asia followed by the Philippines, Thailand, and Singapore with 40%, 36%, 27%, and 26% respectively. According to Fong (2020), this figure is expected to remain for the long term. Figure 1 presents a survey for 2020 of e-wallet usage in Southeast Asia. As can be seen in figure 1, Malaysia holds the biggest percentage of e-wallets acceptance in Southeast Asia in 2020. This significantly shows that Malaysia would be able to follow the global trend in the digital economy.

LITERATURE REVIEW

Overview on e-wallet

The Covid-19 pandemic has led people and businesses to adopt digital payment as one of the main payment methods in e-commerce. In Malaysia, incentives from ePenjana of RM50 have been introduced with an additional condition to register a MySejahtera application and with an aim to ease the financial burden during a pandemic (Yeoh, 2020). An e-wallet not only functions as a payment transaction but also provides several services such as riding sectors, food delivery, and bill payment (Karim et al., 2020). Despite its convenience and popularity, the usage of e-wallets has its own challenges such as technical problems, risk of security, uncontrolled able spending, and limited e-wallet merchants participating in e-wallet usage (Subramaniam, 2020).

Perceived usefulness of e-wallet

Due to the rise in digital payments, there have been various studies conducted on e-wallets adoption. Perceived usefulness (PU) in the context of e-wallets adoption can be defined as the capability of e-wallets to be used at maximum usage. Davis (1989), who introduced perceived usefulness in Technology Acceptance Model (TAM), defined it as the degree to which a person believes that using a technology system would enhance the end user's performance. E-wallets offer a convenient method of making payments without limitations of time and place. All transaction methods can be done through applications installed on the individual smartphone. According to Venkatesh et al, (2003), perceived usefulness was found to be significant in behavioural intention

and was determined as one of the strongest factors to predict the individual's intention to use a particular system. Furthermore, in an observation-based study by Ambika (2017), the usefulness of e-wallets adoption can be seen from the variety of transactions made through e-wallets. For instance, with the auto-pay facility, bills can be paid automatically on a time basis from e-wallet balances. This makes it very convenient for the users as payment can be made anytime and anywhere.

Perceived ease of use of e-wallet

Davis (1989) defined Perceived Ease of Used (PEOU) as a particular system that is free from effort. In other words, acceptance of new information systems and technology does not require much effort in adapting new technologies. The term ease of use in the e-wallet context can be illustrated by how easily e-wallets are utilized in making and loading financial transactions in daily life activities. According to Ambika (2017), e-wallets are easy to use as it only requires a quick download of the applications into one's own smartphone. This is followed by the creation of a user ID and an e-wallet account. It is easy to transfer or load money into the e-wallets through online banking either via credit card or debit card. Thus, it is easy to receive or transfer money anywhere and anytime without physical barriers. Al-Maroof and Al-Emran (2018 as cited in Karim et al, 2020) found that undergraduate students reported the use of web service technology as easy and user-friendly.

Social influence of e-wallet

Social influence (SI) is one of the key elements under the UTAUT model which is perceived as one of the factors associated with the adoption of e-wallets. Social influence can be defined as the degree to which an individual's perception believes it is significant for the users to adopt and use the new technology (Venkatesh, 2003). In this regard, social influence depends on the users' intention to respond to social pressure; either to comply with the environment or neglect the new technology systems. According to Smith, Louis, and Schultz (2016), social influence is determined by individuals' belief, thought, and opinions that are affected by their surroundings. Family and friends are the strong socialization influencers that can convince and promote e-wallet usage among individuals. Hence, social media and favorable individual celebrities may also influence the use of e-wallets through the marketing and promotion of e-wallets.

Nowadays, e-wallets gained more attention, especially during this pandemic Covid-19, where the public needs to avoid physical contact with each other to eliminate the virus from spreading around. Since the corona outbreak started, e-wallets have attracted people's attention to use an e-wallet or cashless methods rather than paying cash. This can be illustrated through an online newspaper article by the New Straits Times (Ismail, 2021), in which it can be observed people prefer payment using bar-code scanning through an e-wallet application as one of the ways to avoid physical contact and avoid consuming more time in making payment. To enhance the cashless societies, the government has announced an e-wallet-centric program for youths called eBelia. This new initiative will involve teens aged between 18 and 20, as well as full-time tertiary students. Through e-Belia, a one-off transaction of RM150 will be deposited into eligible individuals' e-wallet accounts and this program is expected to benefit two million youths across the country (New Straits Times, 2021).

Additionally, according to Zainuddin (2021), the Shopee application received 40% of new users that are using Shopee Pay which was influenced by the establishment of eStart. Initially, it has led to a positive reaction from the youth generation, especially university students to ease their financial burden and encourage the usage of the digital wallet. On the other hand, according to studies made by Chern et al. (2018), students from economics and finance courses have different views on e-wallet adoption, with e-wallets considered a part of financial technology. Therefore, this study can be used by the government to analyze the adoption of e-wallets among students as the youth generation, which may have been influenced by the government initiatives to enhance cashless societies among youth and to encourage the business industry to adopt cashless transactions.

The conceptual framework is developed from the reviewed literature and the Technology Acceptance Model (TAM) by Davis (1986). Figure 2 illustrates the conceptual framework which depicts the factors associated with e-wallet adoption among university students. The three independent variables are Perceived Usefulness (PU), Perceived Ease of Used (PEOU), and Social Influences (SI). Meanwhile, the dependent variable is the adoption of e-wallets. As illustrated, Perceived Usefulness (PU), Perceived Ease of Used (PEOU), and Social Influences (SI) are factors that are deemed influential in the adoption of e-wallets.

CONCEPTUAL FRAMEWORK

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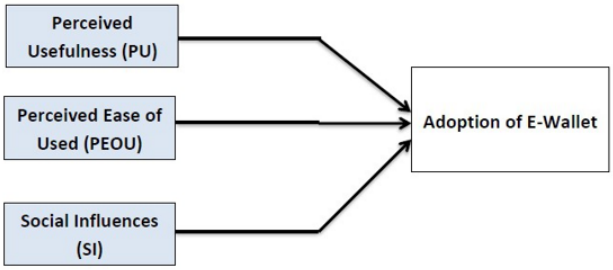

Figure 2. Conceptual framework of factors associated with the adoption of e-wallets among students

RESEARCH DESIGN

The study was predominantly quantitative as it attempted to analyze the relationship between perceived usefulness, perceived ease of use, and social influence on the adoption of using the e-wallet. The unit of analysis used in these studies is the people. The data source used is primary data. The preliminary data was used to collect the data using Google Forms which were distributed on the WhatsApp platform. The data from this study were collected from 177 university students from a public university in Malaysia. The participants were between 19 to 22 years old.

SAMPLING TECHNIQUE

The present work used a convenience sampling technique. This technique is deemed suitable since it is easy to collect data compared to other sampling techniques. The target population for these studies is undergraduates who were studying in a public university. According to Sekaran (2003), the sampling table has suggested that the sample size for 332 populations is equal to 177 respondents.

MEASUREMENT/INSTRUMENTATION

Questionnaires were used to collect the data in this study. The questionnaire consists of three parts: Part A, Part B, and Part C. Part A consist of five items that elicited participants' demographic information such as gender, age, semester, student's awareness of digital e-wallet existence, and frequency of e-wallet usage. Part B consists of fifteen items that elicited information regarding the perceived usefulness, perceived ease of use, and social influences of using e-wallets among students. Part C consists of three items that are used to tap information regarding the adoption of e-wallets. The questions in Part B and Part C have been measured using the Likert Scale, which consists of 5 points of scale indicator, as stated below.

Table 1. Likert Scale

Scale	Indicator
Strongly Disagree	1
Disagree	2
Neutral	3
Agree	4
Totally Agree	5

DATA COLLECTION

In this study, the researchers used indirect structured questionnaires for data collection. The questionnaires were designed via Google Form. A total of 177 questionnaires were distributed and the respondents were given a week to complete the questionnaire. Respondents were also assured that the findings concerning their responses would be treated with high confidentiality to respect individual opinions.

DATA ANALYSIS

Once the researcher gathered the respondent's data through questionnaires, the data from this study were analyzed using SPSS, version 24.0. The data then needs to be keyed in using SPSS, and usually, the researcher will use descriptive statistics to measure different variables, including frequency, mean, and percentage (Timara, 2018). In this research, descriptive and inferential analysis (Pearson Product Moment of Correlation) were used to test the stated objectives.

RESULTS AND DISCUSSION

Reliability test

Table 2. Reliability test

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of items
0.809	0.857	15

Reliability analysis was done to measure the consistency of the scale used in the current work. According to Huck (2007), testing for reliability is important as it refers to the consistency across the parts of a measuring instrument. In addition, the Cronbach Alpha coefficient is also the most used as an internal consistency measure. Table 2 presents the results of the Cronbach Alpha for each variable in this study. As can be seen, the value for each variable is more than 0.7, which indicates the data is reliable. The overall scale is 0.809, which proves that the instrument is reliable.

Respondents' demographic profile

Table 3. Profile of the respondents

	N	%
Gender		
Male	58	32.8
Female	119	67.2
Age		
19 years old	7	4.0
20 years old	8	4.5
21 years old	35	19.8
22 years old and above	127	71.8

Table 3. (continued)

	N	%
Semester		
1	10	5.6
2	16	9.0
3	15	8.5
4	37	20.9
5	48	27.1
6	51	28.8
Are you aware of the existence of e-wallet?		
Yes	176	99.4
No	1	0.6
Which e-wallet application do you use the most?		
Touch n Go	23	13.0
Boost	23	13.0
Shopee Pay	118	66.7
Grab Pay	8	4.5
Others	5	2.8
How frequently do you use an e-wallet in a month?		
1 to 3 times	84	47.5
4 to 6 times	38	21.5
7 to 9 times	11	6.2
More often	38	21.5
Never	6	3.4

Table 3 presents data related to students' awareness and usage of e-wallets. As can be seen, most of the respondents (99.4%) were aware of the existence of e-wallets. Shopee Pay was chosen as the most preferred e-wallet application with 66.7%. This is probably due to the convenience of online shopping as it saves time and effort. Additionally, customers may also get a good discount or lower prices as promotions and sales are constantly available when purchasing items via online stores. In terms of the frequency of use, 47.5% of respondents reported using an e-wallet between 1 to 3 times per month.

Correlation test

Table 4. Pearson Product Moment of Correlation

	Mean	1	2	3	4
Perceived Usefulness	4.3997	1			
Perceived Ease of Used	4.5000	.653	2		
Social Influence	3.6158	.090	.150	3	
Adoption of e-wallet	4.1959	.434	.387	.545	4
N = 177					

This study aimed to investigate the association between perceived usefulness, perceived ease of use, social influence, and e-wallet adoption among students, therefore the correlation test was performed. Overall, findings in this study discovered that all three factors tested showed positive relationships. Table 4 presents the results of the correlations for the variables in this study.

Regarding the first objective, it was found that there was a significantly low positive correlation between perceived usefulness and the adoption of an e-wallet ($r=0.434$, $P<0.05$). This finding strongly suggests that there is a significant relationship between perceived usefulness and the adoption of e-wallets among students. This finding has been supported by research done by Yap and Aun (2019) shows that there is a significant positive relationship between perceived usefulness and adoption of an e-wallet as using an e-wallet would enhance the performance in making payments. In addition, the e-wallet become a functional application that helps e-wallet users to increase their performance in making payments through smartphone applications. Therefore, it can be concluded that perceived usefulness has correspondingly shown that the users intended to use e-wallets due to their functional ways and does not involve much effort for the users to adopt e-wallets as digital banking solutions.

Regarding the second objective, it showed that a low positive relationship exists between perceived ease of use towards adoption of an e-wallet ($r=0.387$, $P<0.05$). This can be supported by research done by Yi and Perera (2019), in Addressing E-wallet Adoption among Malaysians where it showed perceived ease of use has a significant relationship in influencing the user's intention and behavior to adopt e-wallets. A similar study can also be viewed in Nag & Gilitwala (2019), in the study entitled "E-Wallet Factors Affecting Its Intention to Use " where it showed the similar result of perceived ease of use has a significant positive relationship with intention to use e-wallet due to its easy to be used and does not involve complex understanding. The researchers believed that e-wallets do not involve much effort in using and understanding the ways they can be used by the users. The feature itself has conducted instruction and help centers that enable the users to conduct self-service. Therefore, it can be concluded that e-wallets have gained the user's attention due to its feature of ease of making payments and linking with any available merchants only by using the internet and smartphone technology.

As can be seen, there is a moderate positive correlation between social influence and e-wallet adoption among students, ($r= 0.545$, $P<0.05$). This finding suggests that social influence is associated with the adoption of e-wallets. Findings from the correlation analysis also show that social influence recorded the highest value of correlation compared to other factors. According to the frequency table of factors associated with social influences and adoption of e-wallets among students, respondents also agree that the adoption of e-wallets was influenced by celebrities and influencers creating interest to adopt e-wallets as a preferred payment method.

This can be supported by a study done by Nag and Gilitwala (2019), which showed a similar result of social influence factors in having a moderate positive correlation between social influences to adopt of e-wallets. This can be indicated that the respondent is influenced by the social pressure whereby the usage of e-wallets is being conducted by the surroundings as where can be seen through the government incentives. Government incentives such as E-Tunai Rakyat, E-Penjana, and E-Belia only can be claimed in e-wallet applications hence the social pressure to own an e-wallet has led to the existence and usage of e-wallets increased. This indicates that the students might be influenced by peer pressure and social pressure in using e-wallet applications as payment transactions.

CONCLUSIONS

To conclude, this study provided an insight into the adoption of e-wallets among university students. Significantly, the government has established financial incentives through e-wallet applications by having collaborative efforts with e-wallet issuers in Malaysia such as Boost, Grab Pay and Shoppe Pay. In addition, Malaysia aimed to create a cashless society, especially among the younger generation as they can adapt and take the risk in accepting the new technology and internet advancement. The university may come out with new initiatives to encourage students to use e-wallets, where all transactions made are recorded. Furthermore, during this pandemic season, online transactions have become one of the most convenient ways to make payment as it is hassle-free, and it also can reduce the potential of instances of fraud.

ACKNOWLEDGEMENTS

The authors would like to acknowledge the support of Universiti Teknologi Mara (UiTM), Cawangan Negeri Sembilan, Kampus Kuala Pilah and Faculty of Applied Sciences, Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia for providing the facilities and financial support on this research.

CONFLICT OF INTERESTS

The authors agree that this research was conducted in the absence of any self-benefits, commercial or financial conflicts and declare the absence of conflicting interests with the funders.

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