

Factors Influencing the Continuance Intention to use E-Wallet among Mainland Chinese Students in Malaysia

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Abstract:

The electronic wallet (e-wallet) usage has been increasing due to the rapid development of financial technology worldwide. While e-wallet has been used extensively in China, the state on whether the Chinese students from China will continuously use e-wallet in Malaysia is still unknown. This is particularly in terms of the determinants that could explain why mainland Chinese students in Malaysia would continuously use e-wallet. The technology acceptance model (TAM) was used to determine the relationship between perceived ease of use and usefulness with e-wallet users' continuance intention. Three additional variables suggested by the literature were integrated into the research model. These are enjoyment, trust and satisfaction. Hence, this study aims to examine the proposed relationship between perceived ease of use, usefulness, enjoyment, trust and satisfaction with the e-wallet users' continuance intention among the mainland Chinese students in Malaysia. The data was collected using the online survey. The data gathered from 388 respondents was then used to determine the relationship between the constructs. The results reveal significant relationships between ease of use and usefulness with the attitudes of continuance intention. The findings also found that the three additional variables of enjoyment, trust, and satisfaction influenced the attitude of mainland Chinese students towards e-wallet use; and that attitude significantly influenced the continuance intention to use e-wallet. Hence, the findings shed light in terms of identifying the factors that influence users' continuance intention to use e-wallet. The findings inform the e-wallet service provider with the importance information on how to secure customer retention and attract new users for e-wallet)

Keywords—e-wallet, technology acceptance model, continuance intention, mainland Chinese students

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1. Introduction

Since the introduction of cash-free payment in the 1950s, various electronic payment tools have emerged, such as short message payment, card payment (debit card), electronic transfer, online banking and virtual wallet (Akinola, 2012). Many Internet companies have shifted their business focus from personal computer to mobile terminal, and mobile e-commerce have developed rapidly, providing a broad commercial platform for e-wallet. E-wallet refers to the application software applied in smart phones, tablets and other smart terminals. It is also known as mobile wallet. E-wallet can be used to buy products from grocery stores to air tickets. The function is similar to physical wallet, but users need a

smartphone with active Internet connections in order to use e-wallet (Ramya, Sivasakthi & Nandhini, 2017).

With the popularization of 3G services in China in 2009, China's e-wallet has entered a period of rapid development (Ruijun, Juan & Jiakai, 2010). Worldpay, a payment service provider, released the Global Payments Report Digital 2018, which showed that in 2017, China's e-commerce market (per capita expenditure) was \$787 and that in the real store market was \$10,911. China's Third Party Payment Data Publication revealed that in 2018, China's third-party mobile e-wallet transactions were about 190.5 trillion yuan. In terms of its third-party Internet payment transactions in China, it has achieved more than 29 trillion yuan (iResearch China, 2019).

E-wallet has been accepted in China as the top payment online. It is reported that in 2017, 65% of the Chinese were

using e-wallet for e-commerce spending (Global Payment Report, 2019). E-wallet service providers are bound to build their own mobile e-wallet or cooperate with third-party e-wallet to satisfy the users need. It can be predicted that the competition of e-wallet in mobile terminal will be very fierce in the future. Therefore, it is very crucial to examine the reason of why people tend continuously use e-wallet in future. Since most of the existing studies on e-wallet had focused on the platform or system design of e-wallet (Chang, 2016), not much is information has been revealed related to the factors that influence the users' continuance intention to use e-wallet. Therefore, exploring the influencing factors of consumers' intention to continue using e-wallet plays crucial role in optimizing e-wallet products, enhancing consumers' willingness to use e-wallet, and achieving users' retention and growth.

With the popularity of e-wallet in China, the application of China's e-wallet has been expanded to the worldwide. In 2017, China's two largest electronic payment giants, Alipay and Wechat Pay, were accepted in Malaysia. In Malaysia, Alipay has been accepted in over 18,000 merchants nationwide. Users can use Alipay at outlets, such as, 7-Eleven, Starbucks and EzCab (Malaysian Wireless, 2019). The competition with Malaysian based e-wallet is also emerging. Most of the outlets in Malaysia accept a Malaysian based e-wallet, such as Touch 'N Go and Boost. Given that Chinese people has been used e-wallet in conducting transactions and it is widely accepted as a tool of making payment in China, the state to which the factors that influence mainland Chinese students (Chinese from China and studying in Malaysia) to continuously use e-wallet is unknown. Therefore, a question arises as what are the factors that may influence the mainland Chinese students' continuance intention to use e-wallet. Furthermore, the e-wallet's continuance intention still receives little attention in the literature. Hence, an investigation of such factors may reveal insights into the importance of e-wallet in their daily activity. The objectives of this paper are to investigate the relationship between the ease of use, usefulness, enjoyment, satisfaction and trust and the attitude towards e-wallet use; and to examine the relationship between the attitudes towards e-wallet continuance intention to use.

As the e-wallet market is expanding, the competition between the e-wallet providers will become increasingly fierce and homogeneous. The challenge is how to maintain the existing users, and at the same time venture into new opportunities and attract new customer to use e-wallet. This study is important to assist stakeholders in the e-wallet related industry. It is revealed that the cost to obtain a new customer is five times higher the cost of retaining an old customer (Scheffer & Reichheld, 2000). Hence, it is importance for the providers of e-wallet to maintain the existing users and at the same time to attract and acquire new potential users. Therefore, a study on the relevant factors that affect users' continuance intention to use e-wallet is crucial as it could contribute to the understanding the customer loyalty on e-wallet product.

This paper has been structured as follows. In the next section, the research model of the study is introduced, as well as the hypotheses. Following this, the methodology and research findings are presented. The final section concludes with the study's limitation.

2. Literature Review

a. Prior Studies Related to e-Wallet

Not much information could be gathered in relation to the e-wallet's continuance intention, especially for the Chinese who comes to further their study in Malaysia. Given the fact that e-wallet has some similar features with mobile wallet, mobile banking and mobile payment, this study therefore uses it as a proxy to understand the study related to e-wallet continuance intention usage. Chong (2013) combined the Expectations-Confirmation Model (ECM) with Technology Acceptance Model (TAM) to study the determinants for continuance intention among the Chinese consumers who used mobile commerce. The study revealed perceived usefulness, ease of use, satisfaction, enjoyment, trust and cost as the factors that have significant effects on the continuance intention use the mobile commerce. On the same vein, Yuan, Liu, Yao, and Liu's (2016) study found that perceived task-technology fit, perceived usefulness, satisfaction, and perceived risk can be used to predict continuance intention of online banking among Chinese consumers. In a recent study on understanding the determinants of mobile banking continuance usage intention, Foroughi, Iranmanesh and Hyun (2019) confirmed that the technology continuance theory could be used to explain users' perceived usefulness, satisfaction, attitude and intention to continue to use m-banking.

b. Technology Acceptance Model (TAM)

Davis (1989) proposed a TAM model as a mean to understand the individuals' adoption of technology. Perceived ease of use can be referred to as how the individual perceives that the system is easy to use. In this context, if people have the perception that it is easy to use a system, then their intention to use such technology will be increasing. Meanwhile, perceived usefulness focuses on how the users perceive that the use a particular system could improve their productivity and performance. According to the TAM, the individual's attitude toward use of technology could be influenced by these two variables; where then the attitude could lead to the positive intention behaviour of using a technology. The TAM model has been extensively adopted in the literature because it can effectively explain the user's acceptance behaviour on the technology usage. For the practical application, the TAM model has also been fully tested in terms of both its explanatory ability and explanatory degree (Chang, 2016).

3. Research Model and Hypotheses

This study is built on the widely cited theoretical framework in information systems (IS) literature that is the TAM (see, for example, Venkatesh & Davis, 2000; Venkatesh, Morris, Davis, & Davis, 2003). On top of the perceived usefulness and ease of use, this study integrated three new variables (i.e., enjoyment, trust and satisfaction) to further examine the e-wallet users' continuance intention. Figure 1 illustrate the proposed research model. The research model focuses on how perceived usefulness, perceived ease of use, perceived enjoyment, satisfaction and trust could affect the e-wallet user's attitude, and how such attitude could influence the continuance intention to use e-wallet among mainland Chinese students (China students who are studying in Malaysia).

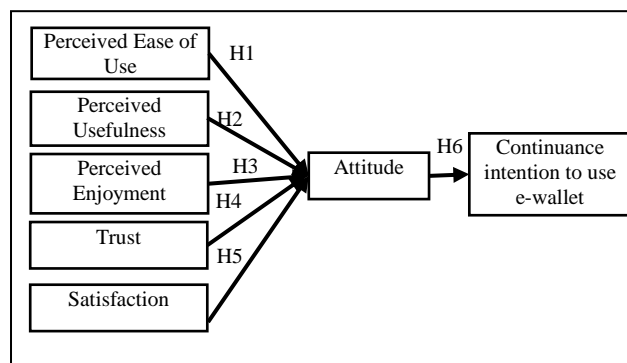


Fig. 1. The proposed research model

a. Perceived Ease of Use

Perceived ease of use focuses on the degree to which a person believes that the system is easy to use (Davis, 1989). Shih (2004) conducted a study on users' online shopping usage behavior and Chandra et al., (2010)'s research on users' mobile payment adoption behavior also found that perceived ease of use can significantly affect the users' attitude. In this context, it is hypothesized that perceived ease of use could influence the attitude of users towards the e-wallet use. Therefore, the following hypothesis is developed:

H1: Perceived ease of use has a significant influence on users' attitudes towards e-wallet

b. Perceived Usefulness

Perceived usefulness refers to the degree to which consumers perceive the improvement of their personal performance when using an information technology system. The performance of users can be improved by using an information technology, hence, the user's attitude towards the use of information systems will be influenced by perceived usefulness. Previous researchers, such as Zhou (2014), and Yuan et al. (2016) used perceived usefulness as a variable to study user attitudes. Their studies found that user attitudes could be significantly influenced by the perceived usefulness. Based on this argument, it is hypothesized that users' attitudes towards e-wallet will be influenced by perceived usefulness. Hence, the following is hypothesized:

H2: Perceived usefulness has a significant influence on users' attitudes towards e-wallet.

c. Perceived Enjoyment

Davis (1989) pointed out that perceived enjoyment is the pleasure that users perceive when using a computer, and it has nothing to do with the results of use. Moon and Kim (2001) further concluded that perceived enjoyment includes three aspects: the degree of individual's perceived concentration in interaction with the Internet, curiosity in interaction, and discovering that interaction is pleasant or interesting in nature. Their studies also found that perceived enjoyment can significantly affect user attitudes. Groß (2015), Chong (2013) and others also achieved the same results. Therefore, it is expected that if the users perceived that using e-wallet could offer an enjoyable experience, it would affect their attitude towards using the e-wallet. Then, the suggested hypothesis is:

H3: Perceived enjoyment has a significant influence on users' attitudes towards e-wallet.

d. Trust

Trust is the individual's belief, in terms of ability, integrity, and benevolence, which will make customers feel that the use of targeted technology is dependable and trustworthy (Gefen et al., 2003). The relationship between influence of trust and the intention to use a social network services had been revealed by Shin (2010). Similarly, Zhou (2014) also found that trust could influence e-commerce consumers' intention. In the context of Chinese consumers, Chong (2013) reported the impact of trust on intention of mobile commerce. Based on this, it is argued that trust could have a significant influence on the attitude towards using e-wallet. Therefore, it is postulated that:

H4: Trust has a significant influence on users' attitudes towards e-wallet

e. Satisfaction

Oliver (1980) defined satisfaction as a comprehensive comparison between the utility of a product and the user's expectation. This study defines the satisfaction variable as a comprehensive comparison between the utility of e-wallet and consumers' expectation after using e-wallet. Users' satisfaction with an innovative technology will affect users' willingness to continue using it. Oliver (1993) confirmed that user attitudes are affected by product or service satisfaction. In addition, Kim, Jeong, & Lee (2010) also revealed the significant influence of satisfaction from the perspective of social network users. It is then hypothesized that satisfaction will have an impact on the users' attitudes towards e-wallet. Therefore, the next postulated hypothesis is:

H4: Satisfaction has a significant influence on users' attitudes towards e-wallet.

f. Attitude and Continuance Intention to Use

User attitudes are defined as whether a user likes a technology system or product, and whether they have a positive or negative evaluation of the business (Davis, 1989). Wu and Chen (2017) studied the continuous use behavior of users found that consumers' attitudes had an impact on the continuous use behavior. In this context, attitude will influence the users' continuance intention towards e-wallet use. The following is the hypothesized:

H6: Attitudes has a significant influence on users' continuance intention towards e-wallet.

Continuance intention is defined as the continuance intention to use a technology and information system after first using it (Bhattacharjee, 2001). It can be determined by variables, such as individual factors and social factors. Gefen (2003) introduced the continuous use intention variable into the TAM model. The findings show an evidence that TAM model can better explain the users' continuance use intention for e-wallet.

4. Research Methodology

a. Research Method

The research design of this study is quantitative approach. Data was distributed and collected using the online questionnaire. Online questionnaires was selected due to its advantages of accessing unique population, and saving time and cost (Wright, 2015).

The instruments were developed by using the established instruments from prior related studies to measure usefulness, ease of use, enjoyment, trust, satisfaction, attitude and continuance intention to use e-wallet. This study used a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree) for each variable.

The questionnaire was refined based on the experts' reviews. A sample of the questionnaire is provided in the Appendix A. It is important to highlight that the questionnaire was translated to the Chinese language as the target respondents were all Chinese.

The questionnaire was divided into nine sections. Section A focuses on the use of e-wallet. Sections B, C, D, E, F, G and H are related to the determinants tested in the study, from perceived usefulness, perceived ease of use, perceived enjoyment, trust, satisfaction, attitude to use, and intention to continue using e-wallet, respectively. The last section I is related to the respondents' profile.

b. Data Collection and Analysis

The sample of this study was China's students who are pursuing their s The online questionnaire was developed using Wenjuanxing (<https://www.wjx.cn>). Wenjuanxing is an online platform that provides free platform to create online questionnaire. The online questionnaire was distributed through invitation to participate in social media platforms, namely WeChat and Whatsapp. The invitation was distributed to the mainland Chinese students who are currently studying in Malaysia. The data was collected from July 26th until August 1, 2019. It is important to highlight that convenient sampling was used for the above procedure of administering the questionnaire. Being aware of the sampling bias due to the selection of the sample did not represent the target audiences (Hair, Money, Samouel & Page, 2007), the findings would not be generalized to the population.

Overall, a total of 388 questionnaire were returned and completed. During the questionnaire development in Wenjuanxing, all of the questions were set as it needed to be answered before the respondents could proceed to the next questions. Hence, no missing value is detected and thus, all responses were considered as usable.

Partial Least Squares (PLS) (via SmartPLS version 2.0 software) was used for statistical analysis. PLS is a structural equation modelling (SEM) technique that allows testing and estimating causal relationships among multiple independent and dependent constructs simultaneously. In order to ensure all the data were free from error, the data were double checked after keyed in. Pattern of response was examined to identify misfit associated with undifferentiated patterns of response. In this study, all responses have standards deviations of more than 0.3. Hence, no response was removed.

5. Findings

a. Demographic Information

Majority of the respondents were male, represented by 57.2% and female of 42.8%. In terms of age, most of the respondents were between 18-20 years old (55.2%). 28.6% of the respondents were between 21-23 years old, followed by 15.2% for those who were between 24-26 years old. Only 1% of the respondents who were above 26 years old.

In terms of the respondents' place of study, 270 students were from Universiti Utara Malaysia, accounting for 69.6%, 65 from HELP University and 53 from SEGi University and

Colleges, accounting for 16.8% and 13.7% respectively. For the educational program of the respondents, 321 of them were undergraduate students (82.7%), 64 postgraduate students (16.5%) and 3 Doctor of Philosophy (PHD) students (0.8%).

b. Analysis of e-wallet use

Table I shows the types of e-wallet used by respondents. WeChat Pay and Alipay had the largest number of users, accounting for 88.1% and 89.7% respectively. Apart from these two, it is found that the mainland Chinese students in Malaysia also used Touch'nGo (9.8%) and Grabpay (34%). The lowest percentage of e-wallet applications usage nare Vcash (0.5%), and Samsung Pay and Boost, which both are only 0.8%. It is important to highlight that the respondents may use multiple e-wallet in their smartphone, depending on the availability of the merchants to accept the e-wallet.

Table 1: Types of e-wallet use

E-wallet	No	Percentage
WeChat Pay	342	88.1
Alipay	348	89.7
Vcash	2	.5
Samsung Pay	3	.8
Paypal	11	2.8
Touch'nGo	38	9.8
GrabPay	34	8.8
Kiplepay	14	3.6
Boost	3	.8

Table II shows the amount of times for using e-wallet in a week. 117 (30.2%) of the respondents were found to use e-wallet in less than 3 times in a week. Meanwhile, 29.9% of the respondents had been using e-wallet in between 4-6 times in a week. There are 4.4% of the respondents who could be categorized as active e-wallet users because they used e-wallet more than 20 times in a week.

Table 2: Amount of times using e-wallet in a week

E-wallet usage in a week	No	Percentage
0-3 times	117	30.2
4-6 times	116	29.9
7-10 times	84	21.6
11-20 times	54	13.9
More than 20 times	17	4.4
Total	388	100.0

Table III displays various type of services that the respondents used their e-wallet. The top three of e-wallet usage are for leisure activities, such as purchasing movie ticket (71.6), food and beverages (68%) and accommodation, such as for hotel booking (55.2%).

Table 3: e-wallet usage services

E-wallet usage	No	Percentage
Food and beverages	264	68.0
Accommodation	214	55.2
Financial service	202	52.1
Groceries shopping	173	44.6
Leisure	278	71.6
Travel	85	21.9
Utility bill payment	95	24.5

c. *Assessment of the Measurement Model*

The loadings for all items, composite value and average variance extracted (AVE) are presented in Table IV. All of the factor loadings exceed 0.50, as proposed by Hair et al., (2007). In terms of the composite reliability (CR), the score of each construct exceeds 0.70, suggesting good indicator for item reliability (Fornell & Larcker, 1981). Hence, no item was deleted. The average variance extracted (AVE) are all above the recommended cut-off value of 0.50 (Fornell & Larcker, 1981). Therefore, it can be concluded that all items were reliable and met the convergent validity requirements.

Table 4: Item loadings, Composite Reliability, AVE

Construct	Items	Items loading	CR	AVE
Perceived usefulness (PU)	PU1	0.857	0.936	0.710
	PU2	0.830		
	PU3	0.875		
	PU4	0.889		
	PU5	0.811		
	PU6	0.790		
Perceived ease of use (PEOU)	PEOU1	0.815	0.930	0.691
	PEOU2	0.804		
	PEOU3	0.865		
	PEOU4	0.882		
	PEOU5	0.889		
	PEOU6	0.722		
Perceived enjoyment (ENJ)	ENJ1	0.707	0.880	0.549
	ENJ2	0.790		
	ENJ3	0.703		
	ENJ4	0.783		
	ENJ5	0.727		
	ENJ6	0.733		
Trust (TR)	TR1	0.804	0.950	0.733
	TR2	0.907		
	TR3	0.874		
	TR4	0.824		
	TR5	0.933		
	TR6	0.884		
	TR7	0.753		
Satisfaction (SAT)	SAT1	0.849	0.920	0.696
	SAT2	0.864		
	SAT3	0.819		
	SAT4	0.822		
	SAT5	0.815		
Attitude (ATU)	ATU1	0.844	0.926	0.716
	ATU2	0.901		
	ATU3	0.874		
	ATU4	0.832		
	ATU5	0.774		
Continuance intention to use (CTTU)	CTTU1	0.865	0.924	0.709
	CTTU2	0.878		
	CTTU3	0.839		
	CTTU4	0.860		
	CTTU5	0.766		

Discriminant validity was conducted to measure how well the construct are distinct. The Fornell-Larcker criterion was used to evaluate discriminant validity where the square root of AVE is examined and all the inter-construct correlations were compared. As shown in Table V, the square roots of the AVE of each construct are greater than the cross-correlations between them, thereby suggesting discriminant validity.

Table 5: Square root of AVE and Latent variable correlation

	PU	ATU	CTTU	PEOU	ENJ	SAT	TR
PU	0.843						

ATU	0.390	0.846					
CTTU	0.212	0.447	0.842				
PEOU	0.214	0.423	0.177	0.831			
ENJ	0.226	0.235	0.116	0.106	0.741		
SAT	0.375	0.434	0.184	0.333	0.160	0.834	
TR	0.307	0.341	0.236	0.157	0.203	0.376	0.856

Note. Numbers in bold denote the square root of the AVE

d. *Assessment of the Structural Model*

The hypothesis relationships between the variables were tested to determine the relationship between the constructs and whether the hypotheses developed were supported. By using SmartPLS 2.0, a bootstrapping procedure (500 resamples) was conducted to show the significance of estimated path coefficients. The selection of 500 resamples was consistent with Deng, Allison, Fang, Ash and Ware (2013) and Sánchez-Franco and Roldán (2005). According to Deng et al., (2013), the number of bootstrap replicates, ranging from 500 to 2000, had little effect on either bootstrap standard error or confidence interval. The results of the structural model are summarized in Table 16. The results indicate that all hypotheses (H1 to H6) are all supported.

Table 6: Hypotheses testing

Hypotheses	Beta (β)	t-value	Results
H1 Perceived ease of use → attitude	0.283	5.905	Supported
H2 Perceived usefulness → attitude	0.189	3.551	Supported
H3 Enjoyment → attitude	0.101	2.509	Supported
H4 Trust → attitude	0.144	3.188	Supported
H5 Satisfaction → attitude	0.199	3.465	Supported
H6 Attitude → Continuance intention to use e-wallet	0.447	12.070	Supported

e. *Variance Explained (R²)*

Table VII shows that the variance explained to attitude and continuance intention are 35% and 20%, respectively.

Table 7: R²

Constructs	R ²
Attitude	0.35
Continuance intention	0.20

6. Discussion

The findings of this study suggest that perceived ease of use, perceived usefulness, perceived enjoyment, trust and satisfaction have significant effects on the attitude of Chinese Malaysian students to use e-wallet. Thus, the following hypotheses, namely H1, H2, H3, H4, and H5 are supported. The findings also show that attitude have significant influence on the continuance intention to use e-wallet among mainland Chinese students in Malaysia. This is tested by the H6. Therefore, this study answers the research questions on the factors that influencing the continuance intention to use e-wallet, namely perceived usefulness, perceived ease of use,

perceived enjoyment, trust and satisfaction; and the impact of attitude on the e-wallet continuance intention usage.

This study found that both perceived usefulness and perceived ease of use have significant impacts on the attitude of mainland Chinese students to continuously use e-wallet in Malaysia. These two factors are the main factors tested under the TAM. The significant results of perceived ease of use and usefulness on the attitude toward e-wallet use are consistent with the findings from the prior studies. For example, Shih. (2004) found that perceived ease of use and usefulness as a main determinant that affect user's attitude on electronic shopping and Chandra's (2010) research on mobile payments. At the same time, the results of H2 verification are consistent with Chong's (2013) research on mobile commerce. In this context, it can be concluded that perceived ease of use and usefulness are among the main characteristics that influence user decision towards using e-wallet.

Perceived enjoyment is found to be significant in explaining the attitude of mainland Chinese students to use e-wallet in Malaysia. The result is consistent with Moon and Kim (2001), who found that enjoyment is main factors that affect user's attitude on World-Wide-Web. Similarly, Groß (2015) also found that user's attitude on mobile shopping was affected by perceived enjoyment. This finding indicates that if the e-wallet users perceived that the use of e-wallet could provide enjoyment, it will give an impact to the attitude towards continuance intention to use the e-wallet.

In terms of trust, this study also found a support on the relationship between trust and e-wallet usage attitude among mainland Chinese students in Malaysia. In this context, trust plays a significant role in influencing people decision to continuously use e-wallet in their daily life. The finding of this study is consistent with Shin Dong-Hee (2010) who found that user's attitude on social networking was affected by trust. Hence, if the users trust that the system is reliable and they feel assured that legal and technological structures could adequately protect them from problems on e-wallet usage, it will influence their attitude towards using e-wallet and will continuously use e-wallet in the future.

Further, this study also reveals that satisfaction has a significant impact on the attitude toward e-wallet use. This finding concurs with Kim et al. (2010) who found satisfaction as significant factor that influence user's attitude on social web sites. In this context, satisfaction is achieved when the users could voluntarily recommend the e-wallet services to their friends and relatives and to continuously use it in the future.

As for the attitude, this study reveals that attitude has a significant impact on the continuance intention to use e-wallet. The findings is consistent with Wu (2017)'s research on the intention to continue using massive open online course. Here, as the mainland Chinese students believe that using e-wallet as a good idea and the fact that they favor the idea of using it, they will continue to use e-wallet in the future. In this context, they might not have a plan to stop using the e-wallet and believe that the need for e-wallet usage will constantly increase.

7. Contribution of the Study and Limitation

The model of this paper is based on the TAM (i.e., perceived ease of use and usefulness) with additional variables of perceived enjoyment, trust and satisfaction. The findings of the study are able to validate the results of prior study that use TAM to understand continuance intention to use IS related application. With the addition of three additional variables of

perceived enjoyment, trust and satisfaction, this study could enrich the literature in the related fields and shed light on the understanding of how such factors could influence the attitude and decision to continuously use e-wallet. In this context, this study provides an evidence that perceived enjoyment, trust and satisfaction could influence the decision to continuously use e-wallet among mainland Chinese students in Malaysia.

The findings of this study show that mainland Chinese students have a positive impact towards the continuance use of e-wallet in Malaysia. In this context, the study found a support that the students continually use the e-wallet as what they did in China. Therefore, this study could be used by the e-wallet provider, especially the Malaysian based to continuously enhance the features of the e-wallet as the users prefer to use it for the reasons of its functionality that is easy to use, its usefulness especially for not having to bring many cash around, and to offer interesting rewards that make the users enjoy in using e-wallet. The e-wallet provider could improve the security and elements of e-wallet because the users trust that the system is safe to use and their personal information is protected.

In addition, the e-wallet provider should also consider to improve e-wallet services in the areas of leisure, food and financial services. In this context, more merchants should be participated so that users have variety of selection to choose for. As a means to improve users' satisfaction, a feedback system could be established. E-wallet provider could add entertainment functions in the e-wallet, such as providing social functions (i.e., chat) and games.

The current study has some limitations that should be taken into accounts. The ability to generalize the current findings is limited because of the fact that it used a convenient sampling to gather the sample of the mainland Chinese students that used e-wallet in Malaysia. The respondents were only from Universiti Utara Malaysia, SEGi University of Malaysia and HELP University. Hence, generalization could not be made to the all population.

This study only considers five variables, namely perceived usefulness, perceived ease of use, perceived entertainment, trust, and satisfaction to understand the factors that influencing continuance intention to use e-wallet among mainland Chinese students in Malaysia. Given the fact that the value of variance explained (R^2) to attitude and continuance intention are 35% and 20%, respectively, more variables could be added to enhance the understanding of factors that influencing such decision. Hence, a rigorous model of continuance intention to use e-wallet could be developed. In the future research, more variable could be introduced and a different theory, such as unified theory of acceptance and use of technology (UTAUT) could be used.

8. Conclusion

The objectives of this paper are to investigate the impact of perceived usefulness, perceived ease of use, perceived enjoyment, trust and satisfaction on the attitude of e-wallet use; and to examine the effect of attitude towards e-wallet continuance intention to use. Data for the study was collected through an online survey, where the link of the survey was distributed through invitation to participate in social media platforms, namely WeChat and Whatsapp. The research model was based on the TAM with three additional variables, namely perceived enjoyment, trust and satisfaction. This study hypothesized that perceived ease of use, perceived usefulness,

perceived enjoyment, trust and satisfaction have effects on the attitude toward the continuance intention to use e-wallet by the mainland Chinese students' in Malaysia. All of the hypotheses are found to have a significant impact to attitude and continuance intention to use e-wallet.

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