

FACTORS INFLUENCING THE INTENTION TO ADOPT ELECTRONIC WALLET AMONG UNDERGRADUATE STUDENT IN KLANG VALLEY

KAUR, J. J.¹ – BAHAR, A. A.^{1*}

¹ Faculty of Business, International University of Malaya-Wales (IUMW), Kuala Lumpur, Malaysia.

*Corresponding author
e-mail: amirbahar[at]iumw.edu.my

(Received 06th June 2022; accepted 08th August 2022)

Abstract. The growth of Fin-Tech in this era has become advanced which aims to make life easier. The Malaysian Government has announced various incentives for the youths but it is unsure if youths have accepted the new cashless payment method, acceptance to new technology and the reasons for adopting a new technology as part of their life. This research aims to study the Factors that Influence the Intention to Adopt E-Wallet among Undergraduate students in Klang Valley. Several influencing factors such as Perceived Ease of Use, Perceived Usefulness, Security and Privacy, Social Influence will be studied to analyse if these factors play an important role in developing students' intention to adopt E-Wallet. The undergraduate students targeted are focused on the Klang Valley area and this research adopts a quantitative method by using primary data through questionnaires. 180 respondents were collected for this research. The data is analysed by using Multiple Regression Analysis to study the relationship between the predictors with the outcome variable. The findings have shown that the four predictors do develop the intention to adopt E-Wallet among undergraduate students.

Keywords: *e-wallet, perceived ease of use, perceived usefulness, security and privacy, social influence, fintech*

Introduction

The purpose of conducting this study is to analyse the factors that influence the intention to adopt Electronic Wallet (E-wallet) among undergraduate students in Malaysia. The concept of Fin-Tech has been expanding rapidly in most companies and financial institutions, thus replacing traditional services that were once adapted, to produce enhanced services through technological advancement which makes life easier. The Malaysian government has contributed various incentives since 2020 for the youths through E-wallets, which shows the government's initiative to expand the use of E-wallet among younger generations to improve students' technology adoption of the financial technology application and encourage the use of cashless payment methods in their daily life. Some of the incentives are Program E-Tunai Rakyat RM30, RM50 E-Penjana, Program E-Belia Pekeraksa RM150 and many more (eCENTRAL Official Portal, 2021; Azaman, 2020; Mohamad, 2020).

The objective of the development of E-Wallet is to make payments more convenient, secure and quicker as compared to the traditional method of using physical money (fiat money). According to Abdul-Halim et al. (2021) stated that the adoption of E-wallet in Malaysia has grown progressively due to the high rate of internet usage and smartphones which directly developed a large population of tech savvy. Based on surveys, the growth in E-wallet transactions in Malaysia had increased at 131% with the worth of RM0.6 billion in 2020 (Tan, 2021). Undergraduates are selected for this

research because the majority of E-wallet users are from generation Z which contributes at 71% (STICPAY Official Portal, 2021). This allows researchers to understand the factors that influence them to adopt E-wallets, their satisfaction level, their acceptance towards financial technology and their response to the shift of cashless payment method.

Covid-19 pandemic in 2020 has shifted the mode of payment into a cashless payment method as a way to minimize and stop the spreading of Covid-19 through fiat money. However, certain populations are reluctant to shift to a new mode of payment and rely on the traditional payment method. Furthermore, user's privacy and data protection are important which sometimes can be violated due to the identity fraud and low security level in the E-Wallet system which can lead to cyber hacking and misusing users' data to gain benefits (Kovacs and David, 2016). For example, 4615 cyberattack cases were reported in 2021 which consisted of 3299 fraud cases, 765 intrusions cases and 256 malicious code cases reported to Cyber999 Help Centre by Cyber Security Malaysia (Malay Mail Official Portal, 2021). This can develop low trust of customers on E-wallet applications due to the fear of cyberattacks and data breach that may happen.

This research aims to provide a clearer understanding on the satisfaction level from the students that gained from the digital services they used, as well as explore the effects on the use of financial technology embedded in the E-wallet service as the futuristic technology which claims to make life easier. This is an opportunity for most companies to upgrade their business strategies with the use of financial technology as a convenient way to attract their target market. In addition, academic institutions can also include a new syllabus that discusses financial technology (Fin-Tech) as an approach to educate the young generation and students on the advancement of fin-tech in this 21st century. The research objectives for this study are: (1) to examine the influence of Perceived Ease of Use on the intention to adopt E-Wallet among undergraduate students; (2) to examine the influence of Perceived Usefulness on the intention to adopt E-Wallet among undergraduate students; (3) to examine the influence of Security and Privacy on the intention to adopt E-Wallet among undergraduate students; and (4) to examine the influence of Social Influence on the intention to adopt E-Wallet among undergraduate students.

Financial technology (Fin-tech)

Financial Technology (Fin-Tech) is defined as an in-depth subject matter that comprises technology, finance and innovation. The growth of financial technology has progressively delivered many opportunities for companies to build the best features any product or service can have, to sustain in the market and attract its target market. The importance of Fin-Tech is that Fin-tech is cost-efficient to most businesses as it provides an automatic and quick response in its system, does not require physical presence and lowers the service costs for customers. Fin-tech also provides better convenience and connectivity in its application. The use of Fin-Tech by companies allows customers to experience better service and convenient access to information (Stamenkovic, 2021).

Electronic wallet

Electronic Wallet (E-wallet) is a software application-based digital wallet that allows users to make payments and transactions by cashless and contactless. The financial

technology in the E-wallet application enables users to complete payment transactions more conveniently and quicker as compared to the traditional payment method of cash (Salodkar et al., 2015). Examples of E-wallets in Malaysia are Touch N' Go, Grab Pay, Boost, Shopee Pay, Razer Pay, We Chat Pay, Ali Pay, MAE, and Big Pay. In addition, the benefits of using E-Wallet are that this application serves as a convenient method of cashless payment which allows users to hold less cash in hand. E-wallet also provides enhanced security features in its application whereby unknown individuals would not have the access to a person's E-Wallet due to its security features such as One Time Password (OTP), 6-digit pin, security question, password, fingerprint or face verification (Arbor Official Portal, 2021).

Perceived ease of use

Perceived Ease of Use is defined as the extent where an individual has a trust and belief in a system that is convenient to use and hassle-free. An application or system that is perceived to be easy to utilize without the need of additional efforts will be more likely to be attracted by consumers (Davis, 1989). Moreover, the satisfaction level of undergraduate students on Perceived Ease of Use is important as it may encourage or discourage them to adopt this technology as part of their life. Therefore, in order to maintain consumers' convenience in adopting E-wallet applications, developers should understand consumers' needs and fulfill new changes that are able to satisfy them (Abdul-Halim et al., 2021). Perceived Ease of Use is a vital factor in examining undergraduate students' intention to adopt E-wallet applications and to observe the satisfaction level gained or lost by undergraduates towards the fin-tech acceptance of E-wallet in Malaysia.

Perceived usefulness

Perceived Usefulness is the extent where an individual believes that utilizing a system can upgrade their job performance towards the tasks. Perceived Usefulness is referred to as the user's expectation towards the functionality of an E-wallet (Davis, 1989). When consumers are exposed to a new financial technology service, they will have their initial perception towards the new adoption. This variable is utilized to examine if E-wallets are useful to undergraduates, to determine if E-wallet requires effort when making payment and the level of convenience when making payments and transactions. An enhanced system operation, minimal errors and the ability to deliver new changes in as convenient a way as possible are the components that drive student's intention to adopt E-wallet applications.

Security and privacy

Security is the protection from any uncertainty or risks that arise from the use of technology. Privacy is the level of control an individual has towards their personal information and how the information can be utilized (Alwi, 2021). Security and privacy issues are common among users who are familiar with the use of financial technology applications as they are required to share personal information and bank details. This is also known as perceived risk. In order to gain consumers' trust, developers should ensure the system is protected and comply with the privacy policy and guidelines. Security features such as pin code, One Time Password (OTP) and passwords are featured in E-wallet which can motivate users to perform cashless payments using E-

wallet (Tenk et al., 2020). E-wallets in Malaysia are regulated by Bank Negara Malaysia that allows users to be informed that the application is safe to use. Thus, security and privacy factors are important to examine if it plays an important role on undergraduates' intention to adopt an E-wallet.

Social influence

According to Tenk et al. (2020) stated that social influence is an opinion brought by an individual that directly can affect a decision on the selection of new technology. The use of social networks allows users to gain various feedbacks and reviews on a technology application which can be influential, thus motivating individuals to grow intentions on trying something new which can be beneficial. Social Influence is a relevant factor that can be examined among undergraduates on using E-wallets as users who use mobile payment service have also shown some influence by their friends and family (Nysveen et al., 2005). Individuals tend to be influenced by the guidance, advice or feedback from people close to them during the beginning stage of using a new technology without having any experiences. The sharing of reviews, feedback, advice and observation makes it easier for new users to indulge into the adoption of E-wallet.

Theories and model

Technology Acceptance Model (TAM)

Youths can be influenced to the adoption of E-Wallet as they have been exposed to use of technology, as the 21st century has been shifting towards a technological era. The acceptance of technology with the aim to fulfil new needs and achieve better convenience in the service is closely related to the Technology Acceptance Model (TAM). TAM is a model proposed by Fred Davis in 1989 which was derived from the extension of Theory of Reasoned Action (TRA). TAM was used to determine user's intention on using new technologies and the study on consumers' acceptance towards technologies (Charness and Boot, 2016). When a user is exposed to a new technology that is able to fulfill new changes and needs, several predictors will influence the user's behavioral intention to use such technology.

Unified Theory of Acceptance and Use of Technology (UTAUT)

In order to achieve higher usage on a technology application, it is vital for companies to study and understand the behavioural intentions of a population in order to fulfil populations' expectations. The study on behavioural intention towards the use of a technology does correlate with the Unified Theory of Acceptance and Use of Technology (UTAUT). UTAUT studies on the technology acceptance and user's behaviour towards their intention on technology usage. The predictors in this theory are Performance Expectancy, Effort Expectancy, Social Influence and Facilitating Conditions, with moderator of gender, age, voluntariness of use and experience (Williams et al., 2015). Trust, Perceived Risk, Security and Privacy are the security-related predictors that has been used by several researchers from the use of UTAUT when studying on the behavioural intention. This study focuses on undergraduates' behaviour towards using E-wallet which makes UTAUT the best practice for understanding the acceptance of financial technology.

Hypotheses

Perceived ease of use on the intention to adopt e-wallet

When the development of financial technology has grown many types of services which includes Electronic Wallet, its sole purpose is to reduce consumers' burden on having physical cash and opt for a convenient method to perform cashless transactions electronically (Abdul-Halim et al., 2021). Furthermore, Perceived Ease of Use have influential factors such as the convenience of using E-wallet features, rewards earned and the hassle-free of making transactions and can influence undergraduate students to substitute from cash payments to cashless payment method by E-wallets.

H1: Perceived Ease of Use has a positive influence towards the intention to adopt E-wallet among undergraduate students.

Perceived usefulness on the intention to adopt e-wallet

Perceived Usefulness is when the use of technology is able to enhance work and quality (Alwi et al., 2019). This factor focuses on the continuity of undergraduate students who adopt E-wallets after considering the satisfaction and performance. Students will achieve their perceived usefulness if the E-wallet is able to benefit them in many ways and make transactions easier. The higher the Perceived Usefulness in E-wallets, the longer the period of users' intention to continue to use E-wallet applications.

H2: Perceived Usefulness has a positive influence towards the intention to adopt E-wallet among undergraduate students.

Security and privacy on the intention to adopt e-wallet

The security and privacy factors are important because according to (Goad et al., 2021), high security and privacy on users' personal information, data protection, bank details and financial transactions will directly build trust on users to continue to use financial applications in their mobile device. This will attract new users to experience the use of E-wallet as a secured application in performing cashless transactions. Moreover, E-wallets that are regulated under Bank Negara Malaysia as well as enhanced security such as One Time Password (OTP), pin number and password are the influences that drive undergraduate students' intention to adopt E-wallets.

H3: Security and Privacy has a positive influence towards the intention to adopt E-wallet among undergraduate students.

Social influence on the intention to adopt e-wallet

The spread of words and experience gained from one individual to another on a new financial technology product can influence progressively which makes it a suitable factor to examine undergraduates on the adoption of E-wallet. The influence of E-Wallet rewards, cashback, convenience to use and secured system can influence students to adopt E-wallet. Besides, the Malaysian Government has also initiated many financial aids through E-wallets which does motivate students to explore the use of E-wallet as a cashless payment method. Many previous researches have also shown a

positive significant social influence factor towards new technologies adapted in smartphones (Tenk et al., 2020; Lu et al., 2008; Hong and Tam, 2006).

H4: Social Influence has a positive influence towards the intention to adopt E-wallet among undergraduate students.

Materials and Methods

Questionnaire development

The questionnaire is developed by using Google Form which includes the demographic information, followed by the factors influencing the intentions to adopt E-wallet which includes perceived ease of use, perceived usefulness, security privacy and social influence. The questionnaire was evaluated by using 5-Point Likert Scale. 1 indicates as highly disagree and 5 indicates as highly agree. The purpose of using 5-Point Likert Scale is because it is easier to understand and it is an ideal method for collecting quantitative data (Newson, 2021). The questionnaire for this research consists of 28 questions.

Population and sampling

The targeted population is undergraduates who study in Klang Valley because Kuala Lumpur and Selangor has been one of the states in Malaysia that has been growing progressively as a digitalized states with state-wide high-speed access to internet and digital infrastructures, thus producing tech-savvy society (CAN Official Portal, 2021; Kaur, 2018). There are 6 Public Universities, 33 Private Universities, 15 University Colleges and 3 Foreign Universities which sums up 57 Universities in Klang Valley, Malaysia (Study Malaysia Official Portal, 2022). Within reasonable time, the researcher managed to collect 180 respondents.

Data collection

Primary data is data collected first hand by the researcher and directly from the sources without assessing other available sources (Wagh, 2021). The data collection for this research is by the primary data as a quantitative approach where the data is collected through questionnaires consisting of 28 questions. The data is collected by the use of Google form to establish the questionnaire and the total respondents collected were about 180 undergraduates. The questionnaire was spread through social media sites as well as visits to a few public places such as MRT and LRT and displayed QR Code scans to several undergraduate students.

Data analysis plan

The research is designed to respond to the research objective. The main focus is prioritizing the factors which influence undergraduate students with the respective predictors as the influencing factors which led to the use of quantitative design for this research. Quantitative research utilizes statistical data which are analysed and collected through questionnaires and QR code. The use of quantitative methods allows researcher to analyse the data gained from the questionnaires and organize them into several

groups. *Table 1* shows the research questions, research objectives, data collection and data analysis used in this research.

Table 1. *Research design.*

Research questions	Research objective	Data collection	Data analysis
What is the influence of Perceived Ease of Use on the intention to adopt E-Wallet among undergraduate students?	To examine the influence of Perceived Ease of Use on the intention to adopt E-Wallet among undergraduate students.	Google form, QR code	Descriptive analysis; Reliability analysis; Multiple regression analysis.
What is the influence of Perceived Usefulness on the intention to adopt E-Wallet among undergraduate students?	To examine the influence of Perceived Usefulness on the intention to adopt E-Wallet among undergraduate students.	Google form, QR code	Descriptive analysis; Reliability analysis; Multiple regression analysis.
What is the influence of Security and Privacy on the intention to adopt E-Wallet among undergraduate students?	To examine the influence of Security and Privacy on the intention to adopt E-Wallet among undergraduate students.	Google form, QR code	Descriptive analysis; Reliability analysis; Multiple regression analysis.
What is the influence of Social Influence on the intention to adopt E-Wallet among undergraduate students?	To examine the influence of Social Influence on the intention to adopt E-Wallet among undergraduate students.	Google form, QR code	Descriptive analysis; Reliability analysis; Multiple regression analysis.

Descriptive analysis

Descriptive Analysis is a data analysis that allows the expression, display or sum up of the data points in a constructive method (Rawat, 2021). Descriptive Analysis produces an outline that can be developed and accomplish every condition of data. Descriptive Analysis also helps researchers to provide conclusion or summary of the data distribution, relationship between variables and helps to manage further statistical analysis (Rawat, 2021). This analysis was performed by using IBM SPSS version 28.0.1.1 (15) to understand the highest value of every criterion that has been asked to the respondents in this research. The appropriate tools that were applied are frequency and percentage. These tools are utilized to understand the high trend of the sampling.

Reliability analysis

Reliability Test is the measurement of the test that is performed without any error. The test is considered reliable if it is accurate, consistent and stable upon measuring

what is supposed to be measured (Franzen, 2011). Cronbach Alpha statistical test is most commonly applied among the predictors to test the reliability (Cronbach, 1947). The larger the value of Alpha, the better the level of trustworthiness and reliability. If the Reliability Test shows an Alpha value of higher than 0.7, it indicates an accurate and reliable grouping of elements or predictors (Taber, 2018). Reliability Analysis is performed by using IBM SPSS version 28.0.1.1 (15). The Cronbach Alpha for Perceived Ease of Use is at 0.935 and Perceived Usefulness is at 0.906, with both predictors obtained values above 0.9 (Table 2). This range is considered to be of excellent consistency and reliability. The Reliability Analysis result for the Intention to adopt E-wallet among undergraduate students is 0.826 whereas Security and Privacy obtained at 0.890 which is at the range of 0.8 to 0.89. This interprets as a good consistency and reliability. The Cronbach Alpha result obtained for Social Influence is 0.774 which is at the range 0.7 to 0.79, this indicates acceptable consistency and reliability. Since the variables in this research are above 0.7, therefore it is considered acceptable and reliable. The coefficients that were gained from the questions in the questionnaire through 5-Point Likert Scale are reliable.

Table 2. Reliability test result.

Variables	Cronbach alpha result	Number of items
Dependent variable: Intention to use E-Wallet among undergraduate students	0.826	
Independent variable 1: Perceived Ease of Use	0.935	23
Independent variable 2: Perceived Usefulness	0.906	
Independent variable 3: Security and Privacy	0.890	
Independent variable 4: Social Influence	0.774	

Multiple regression analysis

Multiple Regression Analysis is used in predicting the value of a predictor by referring to the values of more than one different predictor (Hayes, 2022). The purpose is to study the relationship between the predictors with a single outcome variable of this research. This analysis delivers an overall fit and explanation of the model as well as the support of every predictor explained (Hayes, 2022). Multiple Regression Analysis is run by IBM SPSS version 28.0.1.1 (15). R Square is a statistical measurement that indicates the percentage of variance in the outcome variable which can be explained collectively by the predictors. A good value of R Square of 0.7 and above indicates a high correlation level (Fernando, 2021). Moreover, Significant F value is the probability of null hypothesis that are most likely cannot be rejected. The smaller the value of Significant F, the better and more acceptable the analysis (Mathews, 2018).

Furthermore, T values are measured to identify the errors the coefficient is from zero. A good value of T should be above +2. (Michael, 2021). P value is the probability value of how the data would occur under the null hypothesis. A P-value of lower than 0.05 is considered significant and accepted (Beers, 2022). Besides, Coefficient value discusses the mathematical relationship between outcome variables with every predictor. A positive coefficient value interprets that the higher the value of predictor, the higher the value of outcome variable (Frost, 2019). In addition, Variance Inflation Factor (VIF) is the level of multicollinearity that exists. Multicollinearity is when the predictors are correlated (Akinwande et al., 2015). VIF tolerance should not be higher than 10 whereas the collinearity tolerance should not be lower than 0.01 (Miles, 2014).

Results and Discussion

Based on the analysis in *Table 3*, male respondents comprised 88 which is at 48.9% whereas the number of females contributed the highest at 92 which is equivalent to 51.1% in this research. Moreover, 146 from the total 180 undergraduate students are not working, equivalent to 81.1% whereas the remaining 34 students are working, which contributed at 18.9%. In addition, 63 students use E-Wallet application more “often” every month, which gives the highest percentage of 35%, followed by 52 or 28.9% of students who “always” use E-Wallet application every month. 27.8% of students use an E-Wallet application every month “occasionally” and the remaining 8.3% students do not use any E-Wallet application. Besides, 49 students are using about RM101-RM150 in E-Wallet application monthly, which contributes the highest percentage of 27.2%. 48 students use less than RM50 in E-wallet per month at 26.7%, followed by 38 students using an amount of RM51-RM100 in E-wallet per month. 15.6% of students only use RM151 to RM200 in their E-Wallet and the remaining 9.4% use up to RM201 in E-Wallet when making payments per month.

Table 3. Demographic information of 190 respondents.

Category		Frequency (N)	Percentage (%)
Gender	Male	88	48.9
	Female	92	51.1
Occupation status	Working	34	18.9
	Not working	146	81.1
Average use of E-Wallet (Application per month)	Always	52	28.9
	Often	63	35.0
	Occasionally	50	27.8
	Never	15	8.3
Transaction amount spend in E-Wallet per month	<RM 50	48	26.7
	RM 51-RM 100	38	21.1
	RM 101-RM 150	49	27.2
	RM 151-RM 200	28	15.6
	>RM 201	17	9.4

The R Square value in this Multiple Regression Analysis recorded at 0.789 which interprets that the intention to adopt E-wallet among undergraduate students moves relatively with the factor that influencing them which are Perceived Ease of Use, Perceived Usefulness, Security and Privacy, Social Influence (*Table 4*). Moreover, the Significance F value showed 0.000. Thus, it is lower than 0.05 and has a significant relationship between the intention to adopt an E-wallet with its predictors of this study.

Table 4. Multiple regression analysis with R square and significant F value.

Model	R	R square	Adjusted R square	Std. Error of the estimate	R Square change	F change	df1	df2	Sig. F change
1	.888 ^a	.789	.784	.35396	.789	163.525	4	175	.000

Note: a. Predictors: (Constant), social influence, EASE OF USE, security privacy, PERCEIVED USEFULNESS

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	81.953	4	20.488	163.525	.000 ^b
	Residual	21.926	175	.125	-	-
	Total	103.879	179	-	-	-

Note: a: Dependent variable: DV
b: Predictors: (Constant), social influence EASE OF USE, security privacy, PERCEIVED USEFULNESS

The (T value: 3.144, P value: 0.002) for Perceived Ease of Use explains that the T value is above 2 and p-value recorded at lower than 0.05 (Table 5). The significant value interprets that there is a significant relationship between the Perceived Ease of Use factor with the intention to adopt E-wallet among undergraduate students. Therefore, Hypothesis (H1) is accepted and the null hypothesis (H0) is rejected.

Table 5. Multiple regression analysis with t value, p value coefficients and VIF.

Model	Unstandardized B	Coefficient Std. Error	Standardized coefficient Beta	t	Sig.	95% confidence interval for B		Collinearity tolerance	Statistic VIF
						Lower bound	Upper bound		
(Constant)	-.374	.188	-	-1.987	.048	-.745	-.003	-	-
Ease of Use	.324	.103	.269	3.144	.002	.121	.528	.165	6.058
Perceived usefulness	.250	.102	.226	2.441	.016	.048	.451	.140	7.134
Security privacy	.270	.073	.255	3.694	.000	.126	.415	.254	3.942
Social influence	.211	.047	.230	4.484	.000	.118	.304	.460	2.175

Note: a. Dependent variable: DV

H1: Perceived Ease of Use has a positive influence towards the intention to adopt E-wallet among undergraduate students.

The (T value: 2.441, P-value: 0.016) for Perceived Usefulness shows that the T value is above 2 and p-value recorded at lower than 0.05 (Table 5). The significant value interprets that there is a significant relationship between the Perceived Usefulness factor with the intention to adopt E-wallet among undergraduate students. Therefore, Hypothesis (H2) is accepted and the null hypothesis (H0) is rejected.

H2: Perceived Usefulness has a positive influence towards the intention to adopt E-wallet among undergraduate students.

The (T value: 3.694, P-value: 0.000) for Security and Privacy shows that the T value is above 2 and P-value is lower than 0.05 (Table 5). The significant value interprets that there is a significant relationship between the Security and Privacy factor with the intention to adopt E-wallet among undergraduate students. Therefore, Hypothesis (H3) is accepted and the null hypothesis (H0) is rejected.

H3: Security and Privacy has a positive influence towards the intention to adopt E-wallet among undergraduate students.

The (T value: 4.484, P-value: 0.00) for Social Influence shows that the T value is above 2 and p-value is recorded at lower than 0.05 (Table 5). The significant value interprets that there is a significant relationship between the Social Influence factor with the intention to adopt E-wallet among undergraduate students. Therefore, Hypothesis (H4) is accepted and the null hypothesis (H0) is rejected.

H4: Social Influence has a positive influence towards the intention to adopt E-wallet among undergraduate students.

Moreover, the coefficient value of Perceived Ease of Use shows 0.269 which indicates that there is a positive relationship between perceived ease of use with the intention to adopt E-Wallet. The coefficient value shows that 1 unit of perceived ease of use factor can increase 26.90% of the intention to adopt E-Wallet. Secondly, the coefficient value of Perceived Usefulness shows 0.226 which indicates that there is a positive relationship between perceived usefulness with the intention to adopt E-Wallet. The coefficient value shows that 1 unit of perceived usefulness factor can increase 22.60% of the intention to adopt an E-Wallet. Thirdly, the coefficient value of Security and Privacy shows 0.255 which indicates that there is a positive relationship between security and privacy with the intention to adopt E-Wallet. The coefficient value shows that 1 unit of security and privacy factor can increase 25.5% of the intention to adopt E-Wallet. Fourthly, the coefficient value of Social Influence shows 0.230 which indicates that there is a positive relationship between social influence with the intention to adopt E-Wallet. The coefficient value shows that 1 unit of social influence factor can increase 23% of the intention to adopt E-Wallet. Furthermore, the Variance Inflation Factor (VIF) recorded for Perceived Ease of Use, Perceived Usefulness, Security and Privacy and Social Influence had recorded a value of below 10 whereas the collinearity tolerance for the independent variables is above 0.1, which interprets that the collinearity statistics of independent variables are accepted and not intercorrelated with each other (*Table 6*).

Table 6. Hypothesis result.

Hypothesis	Result
H1: Perceived Ease of Use has a positive influence towards the intention to adopt E-wallet among undergraduate students.	Supported
H2: Perceived Usefulness has a positive influence towards the intention to adopt E-Wallet among undergraduate students.	Supported
H3: Security and Privacy has a positive influence towards the intention to adopt E-Wallet among undergraduate students.	Supported
H4: Social Influence has a positive influence towards the intention to adopt E-Wallet among undergraduate students.	Supported

Conclusion

Perceived Ease of Use can influence students' intention to adopt E-Wallets as this application is easy to manage and use when making cashless payment and transaction. Moreover, Perceived Usefulness factor can influence students as the features embedded in the application are useful and convenient to use. Besides, security and privacy are also a good influence as good security features and privacy protection can grow students' intention to adopt E-Wallet as part of their daily life. Social Influence factor can help students to analyze the reviews or feedback on the adoption of E-Wallet before trying something new.

For future research, researchers can conduct more studies on E-Wallet by focusing on the customer satisfaction to study their satisfaction and dissatisfaction level from using E-wallet. This will help E-Wallet companies to understand customers' needs and factors that can be upgraded for a better service. Moreover, researchers can also conduct

studies on the acceptance of E-wallet among Generation Y to study their technology acceptance. This is a good opportunity for E-wallet companies to improve their application system to ensure that E-wallet applications are user-friendly and hassle free for young and old generations. This will also help Malaysian society regardless of their age to shift to an easy, safe and contactless payment method of E-wallet.

For industrial recommendation, companies under E-Wallet applications should maximize their security level by cybersecurity and information security to ensure a tech-savvy society is able to maintain their long-term trust on E-Wallet companies.

Acknowledgement

I would like to express my appreciation to everyone who is involved in this research. This research could not be complete without everyone's support. Above all, I would like to express my sincere gratitude to my co-researcher, Mr Amir Ariffuddin Bahar for his continuous support, teachings and committed time to guide me throughout the whole process of completing this research. His guidance has helped me a lot to understand better about the research topic I chose. Moreover, this research could not be complete without the support from those who have participated in filling up the research questionnaire. I would like to thank all the undergraduates who had spared their time and effort in answering my questionnaires and helping me to forward around as their data is one of the most important elements required to complete this project.

Conflict of interest

Throughout the process of conducting this research, researchers have confirmed that there was no conflict of interest that occurred by any parties who are involved in this study.

REFERENCES

- [1] Abdul-Halim, N.A., Vafaei-Zadeh, A., Hanifah, H., Teoh, A.P., Nawaser, K. (2021): Understanding the determinants of e-wallet continuance usage intention in Malaysia. – *Quality & Quantity* 56: 3413-3439.
- [2] Akinwande, M.O., Dikko, H.G., Samson, A. (2015): Variance inflation factor: as a condition for the inclusion of suppressor variable (s) in regression analysis. – *Open Journal of Statistics* 5(07): 754-767.
- [3] Alwi, S. (2021): Fintech as financial inclusion: Factors affecting behavioral intention to accept mobile e-wallet during Covid-19 outbreak. – *Turkish Journal of Computer and Mathematics Education (TURCOMAT)* 12(7): 2130-2141.
- [4] Alwi, S., Alpandi, R.M., Salleh, M.N.M., Najihah, I. (2019): An empirical study on the customers' satisfaction on FinTech mobile payment services in Malaysia. – *International Journal of Advanced Science and Technology* 28(16): 390-400.
- [5] Arbor Official Portal (2021): 5 Benefits of a Digital Wallet. – Arbor Financial Credit Union Official Portal. Retrieved from: <https://www.arborfcu.org/blog/5-benefits-of-a-digital-wallet>
- [6] Azaman, A. (2020): 15 juta rakyat Malaysia terima RM 30 mulai 15 Januari-Lim Guan Eng. – Astrowani Official Portal. Retrieved from: <https://www.astroawani.com/berita-malaysia/15-juta-rakyat-malaysia-terima-rm30-mulai-15-januari-lim-guan-eng-227979>

- [7] Beers, B. (2022): What P-Value Tells Us. – Investopedia Official Portal. Retrieved from: <https://www.investopedia.com/terms/p/p-value.asp>
- [8] Charness, N., Boot, W.R. (2016): Technology, gaming, and social networking. In Handbook of the Psychology of Aging. – Academic Press 19p.
- [9] Channel New Asia (CAN) Official Portal (2021): Selangor: A smart state ready for a digital future. – CNA Official Portal. Retrieved from: <https://www.channelnewsasia.com/advertorial/selangor-smart-state-ready-digital-future-2155586>
- [10] Cronbach, L.J. (1947): Test “reliability”: Its meaning and determination. – Psychometrika 12(1): 1-16.
- [11] Davis, F.D. (1989): Perceived usefulness, perceived ease of use, and user acceptance of information technology. – MIS Quarterly 13(3): 319-340.
- [12] eCENTRAL Official Portal (2021): eBelia PEMERKASA: Care penebusan kredit RM 150 eWallet. – eCENTRAL Official Portal. Retrieved from: <https://ecentral.my/ebelia/>
- [13] Fernando, J. (2021): What Is R-Squared? – Investopedia Official Portal. Retrieved from: <https://www.investopedia.com/terms/r/r-squared.asp>
- [14] Franzen, M.D. (2011): Test Reliability. – In: Kreutzer J.S., DeLuca J., Caplan B. (eds) Encyclopedia of Clinical Neuropsychology, Springer 2p.
- [15] Frost, J. (2019): Regression analysis: An intuitive guide for using and interpreting linear models. – Statistics By Jim Publishing 355p.
- [16] Goad, D., Collins, A.T., Gal, U. (2021): Privacy and the Internet of Things—An experiment in discrete choice. – Information & Management 58(2): 57p.
- [17] Hayes, A. (2022): Multiple Linear Regression (MLR) Definition. – Investopedia Official Portal. Retrieved from: <https://www.investopedia.com/terms/m/mlr.asp>
- [18] Hong, S.J., Tam, K.Y. (2006): Understanding the adoption of multipurpose information appliances: The case of mobile data services. – Information Systems Research 17(2): 162-179.
- [19] Kaur, D. (2018): Embracing digital transformation. – The Malaysian Reserve Official Portal. Retrieved from: <https://themalaysianreserve.com/2018/08/30/embracing-digital-transformation/>
- [20] Kovacs, L., David, S. (2016): Fraud risk in electronic payment transactions. – Journal of Money Laundering Control 19(2): 148-157.
- [21] Lu, J., Liu, C., Yu, C.S., Wang, K. (2008): Determinants of accepting wireless mobile data services in China. – Information & Management 45(1): 52-64.
- [22] Malay Mail Official Portal (2021): Minister: 4,615 cybersecurity incidents reported in Malaysia from Jan-May. – Malay Mail Official Portal. Retrieved from: <https://www.malaymail.com/news/malaysia/2021/06/02/minister-4615-cybersecurity-incidents-reported-in-malaysia-from-jan-may/1979083>
- [23] Mathews, S. (2018): Interpreting Regression Output (Without all the Statistics Theory). – Graduatetutor Official Portal. Retrieved from: <https://www.graduatetutor.com/statistics-tutor/interpreting-regression-output/>
- [24] Micheal, R. (2021): Definition of T-value. – All Business Official Portal. Retrieved from: https://www.allbusiness.com/barrons_dictionary/dictionary-t-value-4942040-1.html
- [25] Miles, J. (2014): Tolerance and variance inflation factor. – John Wiley & Sons 2p.
- [26] Mohamad, H.F. (2020): Rakyat boleh tebus RM50 kredit ePenjana mulai esok. – Berita Harian Official Portal. Retrieved from: <https://www.bharian.com.my/berita/nasional/2020/07/716449/rakyat-boleh-tebus-rm50-kredit-epenjana-mulai-esok>
- [27] Newson, P. (2021): 12 Reasons Why The 5-Point Scale is a Universal Sentiment Measurement. – WorkTango Inc. Official Portal. Retrieved from:

- <https://www.worktango.com/blog/12-reasons-why-the-5-point-likert-scale-is-a-universal-sentiment-measurement/>
- [28] Nysveen, H., Pedersen, P.E., Thorbjørnsen, H., Berthon, P. (2005): Mobilizing the brand: The effects of mobile services on brand relationships and main channel use. – *Journal of Service Research* 7(3): 257-276.
- [29] Rawat, A. (2021): What is Descriptive Analysis? Types and Advantages. – Analytics Steps Official Portal. Retrieved from:
<https://www.analyticssteps.com/blogs/overview-descriptive-analysis>
- [30] Salodkar, A., Morey, K., Shirbhate, M. (2015): Electronic wallet. – *International Research Journal of Engineering and Technology (IRJET)* 2(09): 975-977.
- [31] Stamenkovic, M. (2021): The Importance of fintech in the development of smart cities. – FinTech Magazine Official Portal. Retrieved from:
<https://fintechmagazine.com/financial-services-finserv/importance-fintech-development-smart-cities>
- [32] STICPAY Official Portal (2021): Biggest E-Wallet Trends in Malaysia. – STICPAY Official Portal. Retrieved from:
https://www.sticpay.com/en-US/news/news_detail/ewallet-trends-malaysia
- [33] Study Malaysia Official Portal (2022): List of Universities in Malaysia. – Study Malaysia Official Portal. Retrieved from:
<https://www.studymalaysia.com/education/top-stories/list-of-universities-in-malaysia>
- [34] Taber, K.S. (2018): The use of Cronbach's alpha when developing and reporting research instruments in science education. – *Research in Science Education* 48(6): 1273-1296.
- [35] Tan, J. (2021): BNM: E-Money Liabilities Grow Significantly To RM1.6 Billion Over Past 5 Years. – RinggitPlus Official Portal. Retrieved from:
<https://ringgitplus.com/en/blog/bank-news/bnm-e-money-liabilities-grow-significantly-to-rm1-6-billion-over-past-5-years.html>
- [36] Tenk, T.T.M., Yew, H.C., Heang, L.T. (2020): E-wallet Adoption: A case in Malaysia. – *International Journal of Research In Commerce and Management Studies* 2(2): 216-233
- [37] Wagh, S. (2021): Public Health Research Guide: Primary & Secondary Data Definitions. – Benedictine University 6p.
- [38] Williams, M.D., Rana, N.P., Dwivedi, Y.K. (2015): The unified theory of acceptance and use of technology (UTAUT): A literature review. – *Journal of Enterprise Information Management* 28(3): 443-488.