

Factors Affecting Acceptance of E-Wallets Among UiTM Melaka Students

Nani Shuhada Sehat, Intan Liana Suhaime, Jumaelya Jogeran,
Siti Rohana Daud, Khaizie Sazimah Ahmad

Faculty of Business Management, Universiti Teknologi MARA, Melaka, KM18, Jalan Lendu,
78000 Alor Gajah, Melaka

Corresponding Author's Email: intanliana@uitm.edu.my

Abstract

In the modern era, e-wallets have evolved into crucial mobile applications. It replaces conventional payment methods like using cash and debit or credit cards to complete transactions after making a purchase of goods or services. This study will examine university students' acceptance of using the Technology Acceptance Model (TAM) to determine whether they are willing to use the applications or whether they reject them. 210 students took part in the study and answered the online questionnaire that was distributed using Google Form. The demographic profile of the respondents, as well as the three TAM components that were used in this study—perceived usefulness (PU), perceived security (PS), and perceived ease of use (PEU)—were analysed. Additionally, this study examined the students at UiTM Melaka's willingness or actual use (AU) in relation to their behavioral intention (BIU). The results of the Pearson Correlation analysis revealed a positive and significant relationship between UiTM Melaka students' behavioral intention to use an e-wallet and perceived usefulness and perceived security, but the relationship became positive but insignificant with perceived ease of use. Perceived usefulness, on the other hand, emerged as the most important factor that affected respondents' behavioral intention to use an e-wallet, according to the results of the multiple linear regression analysis. The behavioral intention to use an e-wallet also demonstrated a positive influence on actual e-wallet use among UiTM Melaka students. Therefore, the research's findings were helpful in assisting businesses and the application's developer in enhancing their features and offerings, particularly regarding the safety and usability of the systems.

Keywords: Technology Acceptance Model, Perceived Usefulness, Perceived Security, Perceived Ease of Use, E-wallet

Introduction

Buying and selling were routine activities in our daily life. We previously used the traditional way by using cash in every purchase. However, the use of cash is no more as a dominant method because now the transactions can also conveniently be done by using cashless methods such as debit or credit cards, transferring by online banking and scanning Quick Response (QR) codes, and using a digital or electronic wallet (e-wallets). Cash payment is less practical and has many drawbacks to the buyer such as loss of money and the need to carry

more cash to buy items. Sometimes, they will face a lack of cash and the seller will face difficulty in giving change. One of the greatest inventions of the 21st century is the electronic wallets (e-wallets) a vital part of the electronic payment system (Karim et al., 2020). An e-wallet offers the user the ease of storing one or more methods of payment digitally. As a substitute for keeping cash or even cards, the user just keys in the payment information on a smart device, like a phone, a smartwatch, or a tablet, locked and protected by a password (Sachdev, 2019). The type of digital transactions that e-wallets support is based on the systematic use of a quick-response code (QR) code generated by the seller for the buyer to use during transactions (Kasirye & Marsum, 2021). Osman & Yi (2021) stated that nowadays, e-wallet has become practical and accessible in high-volume and low-value situations for instance parking, transit, fast food restaurants, and convenience stores. An e-wallet is digital like a real wallet, with the exemption that money is digital, and it functions as an app on a smartphone that can be done by filling up the wallet with cash via credit cards, debit cards, and online bank transfers (Comparehero.my, 2022). The transfer of the money can be performed either by scanning a QR code or through the card's near-field communication (NFC) technology. NFC allows phones, tablets, or laptops to share data with other NFC-equipped devices. Gokilavani et al. (2018) stated that a digital payment system is an electronic medium that lets consumers make electronic commerce transactions for their goods and financial transactions. E-Wallet is the abbreviation for electronic wallet, and in some cases, is also called a digital wallet. It refers to a payment system technology that transforms the physical wallet features into a digital environment, by allowing users to accomplish their electronic transactions using several forms of payment methods including debit cards, credit cards, loyalty cards, and bank accounts (Abdullah et al., 2020).

Kustono et al (2020) mentioned the application of e-wallet services is progressively growing along with the increasing public awareness and needs to conduct electronic-based transactions. Year to year, the use of e-wallet applications develops drastically. The development of e-wallets has influenced the increasing number of offline merchants who work in partnership with e-wallets. Digital wallets in 2019, known as *dompert* digital in Malaysia, are the fourth most-used payment option, accounting for just seven percent of transactions (Morgan, 2019). However, this method is expected to be the speediest growing between 2019 and 2021, with realization increasing at a compound growth rate of 53 percent to 2021 (Morgan, 2019), and this boom growing truly happens nowadays. Ali et al (2021) stated that in January 2019, Payments Network Malaysia established Malaysia's first real-time retail payments platform, which is expected to uplift e-payments by modernizing Malaysia's payment structure. Features are comprehensive of immediate credit transfer through mobile numbers and national security numbers to both businesses and citizens. Upcoming features are stated to be turning out in the upcoming years, inclusive of electronic mandates and real-time debit transfers. Fintech Malaysia (2021) showed that 233 companies had registered as financial technology (Fintech) company such as Boost, Maybank Pay, CIMB Pay, Razer Pay, Shoppe pay, and Setel. One of the reasons for the increase in the use of e-wallets is because the world had been affected by the Covid-19 epidemic and more users and companies have chosen e-wallets as their daily medium transactions. But Comparehero.my (2020) in their article stated that even without COVID-19, Malaysia's e-wallet market was already ready for strong growth in part due to the region's favourable and because of the government's various plans to push toward a cashless society.

Some previous research on the acceptance of e-wallets had been conducted with various findings. Wen et.al (2018) mentioned that the usage of e-wallets is still currently blooming in Malaysia, where only little reaction had been received from consumers. Yee, 2019 stated that e-wallet acceptance in Malaysia is still in its infancy whereas only 8% of the Malaysian population uses mobile wallets as their payment method because they seem to worry about security. Abdullah et.al (2020) stated that although e-Wallet has been applied for several years in Malaysia, it was found that e-Wallet adoption is still in its preliminary stages. The level of acceptance of e-Wallet technology in Malaysia is still relatively low, given the fact that it has been introduced for several years to Malaysians. Most Malaysians have extremely limited knowledge and do not realize how accessible and convenient e-Wallet is. According to Osman & Yi (2021), despite the rapid growth possibility of e-wallets and their ongoing interest in Malaysia, there is still a lack of awareness concerning the characteristics of e-wallet users in Malaysia and their potential influence on consumer marketing. Digital wallet usage had been flourishing quickly in Malaysia over the last couple of years, and there are more than 40 digital wallet licenses issued by Bank Negara Malaysia (Raimee et al., 2021).

In 2018, MCMC has conducted an e-commerce survey with the findings of 78.3% of shoppers (particularly those below 30 years old) used smartphones as their medium to purchase goods and services online. The most preferred payment method is online banking (62.1%) (MCMC, 2018). According to Morgan (2020) in a survey, Malaysia's mobile commerce growth is expected to outperform overall e-commerce, expanding at an annual growth rate of 19.7% to 2023 and the preferred device for assessing e-commerce is the smartphone (52%) compared with desktop and tablet. Most smartphone users are teenagers and university students they are easy to learn and accept technology. However, the extent to which they are ready to use e-wallets in daily transactions has yet to be identified. As these young generations are currently browsing smart technology, they require to experience new applications and their ease of use, security, and privacy (Wood, 2013). Nevertheless, information security and privacy are critical to think about as information violation cases and issues are rising throughout the world like in Malaysia (Mohamed et al., 2012).

One way to predict one's attitude in accepting and using technology is by using the Technological Acceptance Model (TAM). This model explains and predicts how users accept and use technology. TAM is a model designed to describe how users understand and apply information systems (Davis, 1989). The two determinants of user acceptance by TAM have perceived usefulness (PU) and perceived ease of use (PEU). In TAM, PU refers to the degree to which the user believes that using technology will improve his or her work performance, while PEU refers to how effortless he or she perceives using the technology will be (Masrom, 2007). Both are considered determinant factors for students' perception and PEU itself will be the determinant factor for PU. The other extended TAM variables to be used in this research are perceived security (PS), behavioural intention to use (BIU), and actual to use (AU).

This research will use UiTM students as our respondents to determine the factors that affect their acceptance of e-wallets by using TAM variables.

Therefore, the objectives of this study are

- To identify the relationship between PU, PEU, and PS with BIU.
- To examine the BIU influence towards UiTM students AU of e-wallet

- To determine the most dominant TAM factor that influences the behavioral intention to use e-wallets.

Literature Review

E-wallets Use

Electronic wallets (e-wallets), just like a physical wallet, are applied to keep information such as credit or debit card numbers, e-cash, owner identification, and their contact information, shipping, or billing info such as customer address and other information needed (Junadi & Sfenrianto, 2015). The e-wallet system is endowed with distinct payment characteristics that allow a buyer to use their phone to conduct online transactions without the use of physical cash, and this is accomplished with a single touch on their mobile phone (Kasirye & Marsum, 2021). The purchasers can make payments for their purchases by simply scanning the QR code, which directs them to the seller's online interface for electronic payment of the acquired products (Kasirye & Marsum, 2021). Uddin et al (2014) stated that e-wallets offer an accessible and technologically rapid approach for consumers to pay for products from stores or persons. Pachpande & Kamble (2018), in their research of e-wallet study awareness, determined that the three (3) factors that influence consumer adoption are convenience in ease of use, quick online transaction, and usefulness of e-wallet. Teo et al (2020) in their findings on youth adoption of e-wallets state that the acceptance of e-wallets is affected by the user's perception of the system's security, ease of use of the application, and the influence or encouragement. Aziz & Bakri (2021) in their research found that all four (4) TAM determinants (usefulness, perception and expectation, technology, and readiness) have a positive relationship with e-wallet acceptance among Malaysia's consumers. As mentioned by Janteng & Dino (2022), the use of e-wallets has increased due to most consumers nowadays owning smartphones that allow them to install the e-wallet's applications easily. Kasirye & Marsum (2021) study on e-wallets benefits mentioned that this application is becoming increasingly popular for several reasons, including the ability of users to prioritize the items they purchase, spend within their means and according to their budget, have greater convenience when making payments, and are flexible, highly accessible, and simple for money transfers. Rosnidah et al (2018) in their study on mobile payment acceptance stated that the more benefits you get while using e-wallets, the higher the intention and acceptance of e-wallets. To encourage the acceptance of e-wallets, the government has provided an incentive for Malaysians to use E-wallets in order to live a cashless lifestyle (Hartini et al., 2021) for example, in January 2020, the three e-wallets (Touch 'n Go, Boost, and Grabpay) were selected to take part in the government's RM450 million e-Tunai Rakyat which is every Malaysian customer entitled to redeem RM30 for any one of the e-wallet services (Tariq, 2020). The Sun (2022), in one of their articles, indicated that e-wallet usage surged by 131% to more than 600 million transactions in 2020 compared to the previous year, according to Datuk Seri Alexander Nanta Linggi, Minister of Domestic Trade and Consumer Affairs. He said that the percentage of Malaysians who used cash payments has decreased from 11% to 78% from 89% before the outbreak, according to the recently released PayNet 2022 data. These statistics indicate that using cashless payment methods has started to gain acceptance.

Behavioral Intention to Use (BIU)

Ali et al (2021) in their study stated that intention refers to the extent individuals are willing to go and how much willpower they intend to put into the effort to carry out a specific

behavior while behavioral intention refers to the faster that it is for a person to accept new technology, the stronger their intention to do so. Karim et al (2020) conducted a study on factors influencing the use of e-wallets among Malaysian young adults indicating that behavioral intention had a significant influence on the actual use of e-wallets. The data from Barry & Jan (2018) demonstrate that behavioral intention is significantly positively influenced by perceived usefulness, perceived enjoyment, and privacy and security. Karim et al (2020) found that perceived usefulness, perceived ease of use, and privacy are additional important factors to consider when analyzing behavioral intentions to use an e-wallet. Osman & Yi (2021) in their findings indicated that intention to use an e-Wallet among UPM students was positively correlated with perceived usefulness, perceived ease of use, and perceived security while perceived usefulness stood to be the most significant factor. It showed that the UPM students have the highest intention to use e-wallets. Pertiwi et al (2020) found in their study that BIU has a positive and significant relationship with e-wallet actual use (AU) and the respondents have a strong intention to use the e-wallet. Based on the previous study, this research proposed that:

Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) was firstly introduced by Davis et al. (1989). This theoretical model is well-constructed for the characteristics of FinTech which can identify and understand the users' acceptance and adoption of a new system, technology, information technology, or innovation (Jin et al., 2018). The TAM model is used to build the foundation of this theoretical framework to investigate the factors that influence consumer purchasing decisions on online food delivery (Aziz & Bakri, 2021). Several studies in recent years have found the TAM Model to be the most appropriate theoretical foundation for e-Commerce adoption (Jambulingam et al., 2015). Kustono et al (2020) mentioned that TAM demonstrates that a user's attitude toward technology use affects their attitude towards using (ATU). The two (2) main factors in TAM are perceived ease of use (PEU) and perceived usefulness (PU). Trivedi (2016), in his study, determine that PEU and PU are the factors influencing the acceptance of e-wallet services among Gen Y in India. Karim et al (2020) stated that the initial TAM variables, however, might not have been able to adequately reflect the fundamental ideas that influence customers' attitudes regarding online buying. To ascertain the causes of m-commerce use in Malaysia, Barry & Jan (2018) expanded the basic TAM theory to include privacy and security. It also was created to describe and forecast customer intent to adopt an information system. Therefore, in this study, the researchers will make research based on perceived ease of use, perceived usefulness, and perceived security.

Perceived Usefulness (PU)

Davis (1989) defined perceived usefulness (PU) as "the degree to which a person believes that using a particular system would enhance his or her job performance". Within this context, users believe that the use of e-wallets can gain benefits and simplify their daily transactions. Thus, perceived usefulness can influence them to implement and accept the e-wallet (Aziz & Bakri, 2021). Kustono et al (2020) indicate that the e-wallet payment service method is thought to offer considerably more benefits than cash payments, including the ability to make quick payments to finish transactions and paying a genuine minimal cost. E-wallet services are useful since they help users complete transactions and transfers. A person will utilize an e-wallet if he thinks it is simple to use. However, if a person does not think that using an e-wallet is simple, he will not do so (Kustono et al., 2020). PU has a significant influence on BIU

since using an e-wallet to make payments saves time and is convenient (Karim et al., 2020). Aji et al (2020) conducted a study on e-wallet usage intention with Covid-19 and found that there is a correlation between the use of e-wallets and fully mediated Malaysian government support, and it has been demonstrated that the government participated in the MCO by offering some assistance. Mei & Atan (2021) conducted research on cashless payments, including e-wallet usage among Kulai customers, PU has a positive relationship with cashless payment usage, demonstrating that the respondents perceive that cashless payment is more efficient and convenient. Pertiwi et al (2020) found in their study that PU has a positive and significant relationship with BIU and demonstrated that the respondents in this study think using e-wallets to make payments is very simple. However, Teo et al (2020) find that the adoption of e-wallets among Malaysian teenagers is not significantly influenced by perceived usefulness. As a result, this study makes the following suggestions to examine employing the other respondents:

Perceived Ease of Use (PEU)

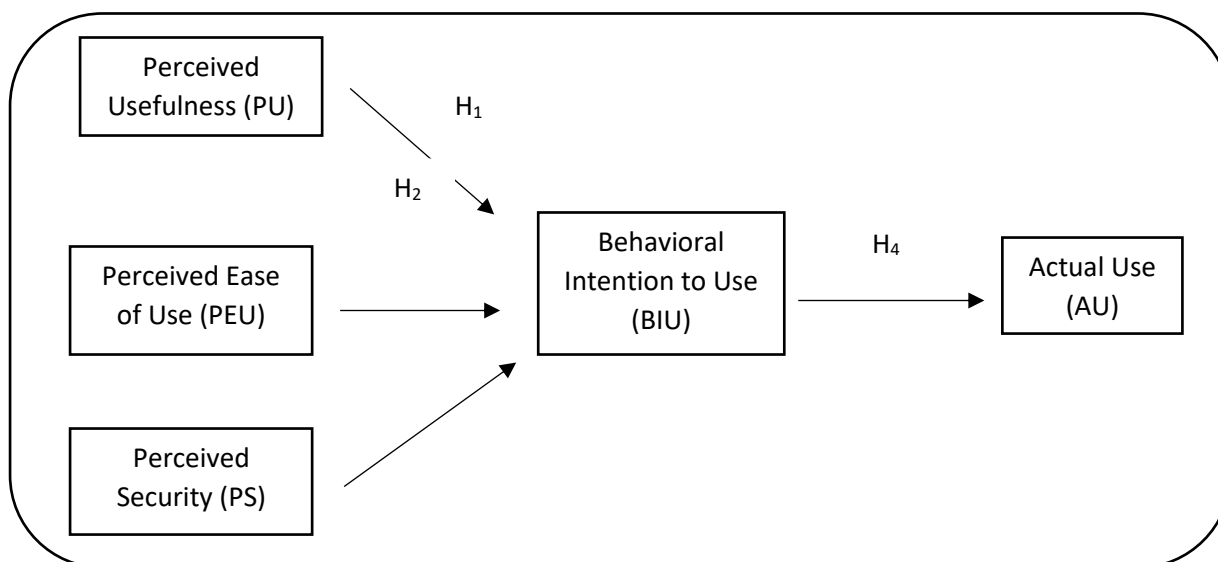
According to Davis (1989), perceived ease of use (PEU), refers to "the degree to which a person believes that using a particular system would be free of effort. Kustono et al. (2020) stated that PEU in a transaction is a factor that is thought to affect how often e-wallet application services are used. Janteng & Dino (2021) made research on factors that determine the adoption of e-wallets indicating that perceived ease of use (PEU) is positively connected with e-wallet adoption. The more user-friendly an e-wallet service, the more people would use it as a form of payment. Karim et al (2020) found that PEU has a positive and significant influence on PU and BIU and indicating a strong relationship between PEU and PU. Therefore, it is crucial for e-wallet providers to keep in mind that user-friendly applications may have a beneficial effect on consumers' behavioral intention to use them. According to research by Mei & Atan (2021) on cashless payments, including e-wallet usage among Kulai customers, PEU has a positive relationship with cashless payment usage showing that the respondents believe that cashless payment is simple to use and more practical. In their study, Pertiwi et al (2020) discovered that PEU has a positive and significant relationship on BIU, indicating that the respondents find e-wallets to be quite helpful for carrying out transactions. Based on the previous findings discussed above, this study proposed that:

Perceived Security (PS)

Security is defined as a collection of tools and techniques for analysing information sources, safeguarding data integrity, and preventing network and data issues (Azman et al., 2021). Perceived security in this context, according to Shin (2009) in Amoroso & Watanabe (2011) is the degree to which a customer believes that using a particular mobile payment procedure will be secure. Karim et al (2020) in their study used privacy and security variables to look at the effects on behavioural change because privacy and security are key concerns among new generations when it comes to using digital technology and they indicated that privacy and security were found to have a positive relationship with behavioural intention. While Teo et al (2020) stated that a person's perception of a procedure's security is referred to as perceived security. Voronenko (2018) stated that a FinTech company's application should have the highest level of security possible. Customers would avoid using an application if they were unsure of its security. Additionally, virtually all respondents (almost 100%) said that adopting a solution is highly dependent on their ability to trust the organization that provides their digital device wallet. Aziz & Bakri (2021) stated that because perceived security, price value,

and social media had no significant influence on behaviour, the issue of their study is a lack of trust, privacy, and security. Based on their research, consumers believe that e-wallets lack security features. Meantime, Abdullah et al (2020) in their study on e-wallet acceptance among Malaysia's public universities found that security is not the significant factor that influences e-Wallet acceptance. Along these areas, the following theory was developed:

Theoretical Framework



H₂: Perceived ease of use (PEU) has a positive relationship with behavioral intention to use (BIU) e-wallet among UiTM's students.

H₃: Perceived security (PS) of e-wallets has a positive relationship with UiTM students' behavioral intention to use (BIU) e-wallet.

H₄: Behavioral intention to use e-wallet (BIU) has a positive influence on e-wallet actual use (AU) among UiTM's students.

Methodology

Variables and Measurement

The research model comprises six (6) variables, including perception, perceived ease of use (PEU), perceived usefulness (PU), perceived security (PS), behavioral intention to use (BIU), and actual to use (AU). The survey employed in this study was based on the TAM theory, with items for perception, PEU, PU, PS, and AU primarily drawn from Muniandy (2021), and items for BIU drawn from Pertiwi et al (2020). To make the current study more appropriate, a few items from each variable were slightly altered. To convey the assertion of agreement, a five-point Likert scale (1=strongly disagree to 5=strongly agree) was used to measure each of the measurement items. Thirty (30) sets of questionnaires were given out to university students as part of this project's pilot study to collect comments and feedback. Based on the comments and feedback from the respondents, the questionnaire was further altered to enhance its clarity and understandability.

Data Collection

An online survey questionnaire was used to collect data for this study, and it was sent to the intended respondents via a Google form link. UiTM students were selected as the

respondents for this study because they are among the most consistent users of e-wallets in all their transactions. 210 questionnaires were distributed to UiTM Melaka students and every single one was successfully returned. The questionnaire results were analyzed using Statistical Package for Social Science (SPSS).

Data Analysis

Demographic Profile

The demographic information of the 210 UiTM Melaka students who participated in this study is shown in Table 1 below. According to the study, 168 students, or 80% of the total respondents, are female, while 48 students, or 20% of the total respondents, are male. Most respondents (94.3%, or 198 respondents) were students between the ages of 18 and 20, while 12 respondents (5.7%) were between the ages of 21 and 23, and the majority of them are from part 4 which is 110 students (52.4%). Among all respondents, 188 (89.5%) are aware of e-wallets through social media (Facebook, Instagram, Twitter, and TikTok), 172 (81.9%) are aware via the internet (Google Search, Yahoo Search, and Internet Explorer), and 113 (53.8%) are aware through recommendations from friends, family, and relatives. ShopeePay is the e-wallet that respondents use the most, with 184 respondents using it (87.6%), followed by 166 respondents using Touch n' Go (79%), and 98 respondents using Grabpay (46.7%). A total of 152 respondents, or 72.4%, used e-wallets 1–5 times each month; 27 respondents, or 12.9%, used them 6–10 times per month; and the remaining 25 students, or 11.9%, used them more frequently than 10 times per month.

Table 1

Demographic Profile

Measure	Items	Frequency	Percentage
Gender	Male	42	20
	Female	168	80
Age	18-20	198	94.3
	21-23	12	5.7
	24-26	0	0
Part	1	5	2.4
	2	21	10
	3	57	27.1
	4	110	52.4
	5	17	8.1
Know about E-wallet	Internet	172	81.9
	Social Media	188	89.5
	Recommendations	113	53.8
	Magazines	2	1.0
	Television	46	21.9
	Others	13	6.2
Types of E-wallets used	Boost	37	17.6
	Touch n' Go	166	79.0
	Grabpay	98	46.7
	ShopeePay	184	87.6
	Lazada Wallet	35	16.7

	Samsung Pay	11	5.2
	Paypal	33	15.7
	Maybank Pay	56	26.7
	CIMB Tap n Pay	9	4.3
	ipay88	19	9.0
	Razer Pay	14	6.7
	AEON Wallet	5	2.4
	ShopBack	24	11.4
	Others	29	13.8
Frequency use per month	Never use	6	2.9
	1-5 times	152	72.4
	6-10 times	27	12.9
	> 10 times	25	11.9

Correlation Analysis

The findings of the analysis of the study's objectives and hypotheses are shown in Table 2 below. Pearson's correlation coefficient was conducted to determine the strength of a relationship between two variables and their correlation. The result will be interpreted by looking at a positive relation is shown by a r -value between 0 and 1, and a significant relationship is indicated by a p -value of less than 0.05. Therefore, the correlation study was carried out to examine the relationship between UiTM Melaka students' behavioral intention to use (BIU) e-wallets and the factors of the Technology Acceptance Model (TAM), namely perceived ease of use (PEU), perceived usefulness (PU), and perceived security (PS). The three TAM components are the independent variables, while the BIU is a dependent variable.

The perceived usefulness (PU) of e-wallets reported has a positive ($r=0.704^{**}$) and significant relationship ($p=0.000$) with UiTM students' behavioral intention to use (BIU) e-wallets. According to the r -value, PU and BIU have a moderate positive relationship, and when PU changes, BIU also changes in the same manner. The current finding was consistent with earlier research by (Pertwi et al., 2020). They discovered that PU has a positive and significant relationship with BIU and showed that the respondents in this study believe using e-wallets to make payments is very straightforward. Their payment transaction can become more efficient and faster by using an e-wallet. Therefore, the H_1 is supported by the findings that have been reported.

According to this study, behavioural intentions to use e-wallets (BIU) and perceived ease of use (PEU) of e-wallets positively correlate. But because the p -value is greater than 0.05, the correlation is insignificant with $p=0.566$ and has a very weak positive correlation ($r=0.040$). Even if there is a very weak correlation in this relationship, it nevertheless demonstrates that as PEU rises, UiTM Melaka students' BIU of e-wallets would follow suit. The students believe that using an electronic wallet can help them save time when doing transactions. The H_2 of this study is supported since the findings were compatible with those of earlier researchers made by (Karim et al., 2020).

According to Osman et al (2021), there is a significant relationship between UPM students' intentions to adopt an e-wallet and their perception of security. This study's findings also demonstrate a significant correlation between perceived security (PS) and behavioral

intention to use (BIU) an electronic wallet ($r=0.617^{**}$, $p=0.000$), and H_3 was accepted. This result indicates that students utilize e-wallets because they trust the security features that developers of e-wallet software provide.

Table 2

Result of Pearson Correlation Coefficient

Hypotheses	Pearson Correlation (r-value)	Significant Level (p-value)
H ₁ : Perceived usefulness (PU) of e-wallet has a significant relationship with UiTM students' behavioral intention to use (BIU) e-wallet.	0.704**	0.000
H ₂ : Perceived ease of use (PEU) has a significant relationship with behavioral intention to use (BIU) e-wallet among UiTM's students.	0.040	0.566
H ₃ : Perceived security (PS) of e-wallets has a significant relationship with UiTM students' behavioral intention to use (BIU) e-wallet.	0.617**	0.000

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

Table 3

Indicator for Pearson Correlation Analysis (Sekaran, 2013)

Coefficient Size	Strength of the relationship
0.91-1.00	Very strong
0.71-0.90	Strong
0.41-0.70	Moderate
0.21-0.40	Weak
0-0.20	Very Weak

The multiple regression analysis shown in Table 4 below was carried out to ascertain the positive influence of BIU on AU of e-wallets among UiTM students. The analysis's R^2 value of 0.258 indicates that the BIU of UiTM students accounts for 25.8% of the change in their AU in their e-wallet. The results showed that BIU had a positive influence on students' AU at UiTM Melaka; if BIU grew by 1%, students' AU would rise by 50.8%. This indicates that students at UiTM Melaka discovered that using an e-wallet will benefit them more. Therefore, H_4 for this study is supported.

Table 4

Multiple Linear Regression for Actual use of E-wallet among UiTM Students

Variable	Standard Coefficients Beta (β)	Beta (t)	p-value
Behavioral Intention to use (BIU)	0.508	8.495**	0.000

Note: Dependent Variable: Actual to use (AU)

$p < 0.01$, $R^2 = 0.258$, $\Delta R^2 = 0.254$

The analysis in Table 5 below was carried out to determine which TAM factors, namely PEU, PU, and PS, are the dominant influence on BIU of e-wallets among UiTM students. PEU, PU, and PS were able to predict up to 56.5% of the factors that affect the behavioural intention to use (BIU) of e-wallets, according to the analysis's R^2 value of 0.565 for all three components. The findings also showed that perceived usefulness ($\beta = 0.523$, $p=0.000$) and perceived security ($\beta = 0.319$, $p=0.000$) were identified as the significant factors towards the behavioural intention to use e-wallets among UiTM Melaka students. The data shows that a 1% rise in PU would result in a 52.3% increase in e-wallet BIU. It indicates that students at UiTM Melaka think using e-wallets can benefit them and make daily transactions easier. The students at UiTM Melaka would utilize the e-wallet more if the applications' security measures were upgraded, as their BIU would rise by 31.9% if PS increased by 1%. In addition, perceived ease of use ($\beta = -0.004$, $p=0.926$) indicated that for every 1 unit increase in perceived ease of use, the behavioral intention to use (BIU) e-wallet among UiTM Melaka students will decrease by 0.004 units. Because it had the highest regression coefficient ($=0.523$) and was similar to the finding made by Osman et al (2021), who found that perceived usefulness was the greatest influencing factor towards students at UPM's intention to adopt an electronic wallet because it had the highest regression coefficient ($=0.612$), we can conclude from these results that students at UiTM Melaka believed perceived usefulness to be the most significant factor affecting their behavioural intention to use an electronic wallet.

Table 5

Multiple Linear Regression for Behavioral intention to use (BIU) of E-wallet among UiTM Students

Variable	Standard Coefficients Beta (β)	Beta (t)	p-value
Perceived ease of use (PEU)	-0.004	-0.093	0.926
Perceived usefulness (PU)	0.523	9.321**	0.000
Perceived security (PS)	0.319	5.708**	0.000

Note: Dependent Variable: Behavioral intention to use (BIU)

$p < 0.01$, $R^2 = 0.565$, $\Delta R^2 = 0.559$

Reliability Test

According to Uma Sekaran (2000), generally, reliability values below 0.60 are regarded as poor, those between 0.70 and 0.80 are deemed acceptable, and values above 0.80 are regarded as good. In total, the 24-item total has a Cronbach's alpha reliability of 0.912. 0.860 for BIU, 0.909 for AU, 0.824 for PEU, 0.924 for PU, and 0.909 for PS. This result demonstrates how highly dependable every single item on the questionnaire was.

Discussion and Conclusion

One of the payment options that is becoming more popular with customers is the e-wallet. It is the default option for payments because of how simple, efficient, and adaptable it is to use. But not all users decide to use it. Some people feel more at ease making payments through their online banking, using a debit card or a credit card, while others prefer to use cash. According to an Oppotus poll on digital payments, 68% of Malaysian respondents said they had used e-wallets to make payments in the first quarter of 2022. Because of the COVID-19 epidemic, more people started using digital wallets during the fourth and first quarters of 2019 (Statista, 2022). The results indicated that Malaysians are gradually adjusting to and

accepting e-wallets in general, but it was unclear how many young people, notably university students, accepted and used e-wallets. By employing the components of the Technology Acceptance Model (TAM) as its factors, several studies have been undertaken to investigate how well-liked e-wallets are among university students. Some of the results, however, depart from those expected. Therefore, the purpose of this study is to identify the TAM factors namely perceived usefulness, perceived ease of use, and perceived security that affects students at UiTM Melaka's acceptance of e-wallets.

The perceived usefulness of e-wallets was discovered to be the most significant factor influencing students at UiTM Melaka's approval of behavioral use. They think that by using an e-wallet, their daily activities will be more productive and efficient. Instead of needing to find cash and wait for the cashier to give them their balances, consumers may be able to save time by using e-wallets. They could also have a brand-new shopping experience by making purchases of products and services with only a few clicks of the pay button or quick scans in applications. When your balance becomes insufficient, all you must do is enter your debit card details to reload your account. You can store your bank card information for future usage to reload your balance easier. Students at UiTM Melaka agree that using an e-wallet can boost their performance and quality. They require an application that may assist them to streamline their daily activities because they are students that have a busy campus life that is full of classes and assignments.

Before deciding to utilize any online application, especially one that involves money, customers will take security into account. The same is true for the e-wallet application, which consumers will check to see if it is secure before they feel confident using it to make a payment, even though they perceive it to be safer than using cash or credit cards or other conventional methods. Because nowadays, many misconducts or frauds occur involving applications related to online payment. Because of that, users, especially university students, will be more careful before using it. In fact, some don't want to try because they are worried that their money or their account will be hacked by scammers. After implementing the security features, some UiTM Melaka students decide to use an e-wallet application because they believe that the likelihood of losing money in e-wallets is minimal and that the security measures can provide protection against the danger of fraud and financial loss.

Perceived ease of use, which means they tend to think the application they used is simple and easy to use, is the next TAM element that has been used in this study. Because the applications are simple to use and the service offers are simpler and clearer, most researchers discovered a significant relationship between perceived ease of use and behavioral use of e-wallets. However, the results of this study are completely unexpected. When it comes to e-wallet usage among UiTM students, perceived ease of use is generally not significant. They rarely experience confusion when using the e-wallet and believe it to be a difficult application to use. They occasionally experience e-wallet frustration, perhaps because of prior mistakes. Nevertheless, despite its lack of significance, the relationship is still positive.

Overall, most students at UiTM Melaka are willing to and have already started using the e-wallet application in their daily transactions. In fact, some of them use it more frequently—more than 10 times per month. They only had their phone with the e-wallet applications

installed when they arrived, without any cash or credit cards. Perhaps more university students will start using e-wallets over time.

References

- Abdullah, N., Redzuan, F., & Daud, N. A. (2020). E-wallet: Factors Influencing User Acceptance Towards Cashless Society in Malaysia among Public Universities. *Indonesian Journal of Electrical Engineering and Computer Science*, 20(1), 67-74. DOI: 10.11591/ijeecs.v20.i1.pp67-74.
- Aji, H. M., Berakon, I., & Husin, M. M. (2020). Covid-19 and e-wallet Usage Intention: A multigroup Analysis Between Indonesian and Malaysia. *Cogent Business & Management* (2020)(7). <https://doi.org/10.1080/23311975.2020.1804181>.
- Ali, T. F. U., Raj, M. S. S., Singh, J. S. K. (2021). A Quantitative Study on The Factors Influencing Higher Education Institutions Students' Acceptance of Mobile Payments in Klang Valley, Malaysia. *Electronic Journal of Business and Management*, 6(3), 15-43.
- Amoroso, D. L., & Watanabe, R. M. (2011). Building a Research Model for Mobile Wallet Consumer Adoption; The Case of Mobile Suica in Japan. *Journal of Theoretical and Applied Electronic Commerce Research*, 7(1), 94-110. DOI: 10.4067/S0718-18762012000100008.
- Aziz, N. A. B., & Bakri, M. H. (2021). Determinants of E-wallet Acceptance Consumer in Malaysia. *International Journal of Human and Technology Interaction*, 5(2), 15-21.
- Azman, H., Lih, C. S., & Yahaya, S. N. (2021). Factor Affecting Adoption of E-Wallet Among Gen Y in Pahang. *Journal of Technology and Technopreneurship*, 9(2), 102-112.
- Barry, M., & Jan, M. T. (2018). Factors Influencing the Use of M-Commerce: An Extended Technology Acceptance Model Perspective. *International Journal of Economics, Management and Accounting*, 26(1), 157-183. <https://journals.iium.edu.my/enmjjournal/index.php/enmj/article/view/502>.
- Chelvarayan, A., Yeo, S.F., Yi, H. H., & Hashim, H. (2022). E-wallet: A Study on Cashless Transactions Among University Students. *F1000Research* 2022, 11:687. <https://doi.org/10.12688/f1000research.73545.1>.
- Comparehero.my. (2022). *Ultimate Guide to E-Wallets in Malaysia 2022- Which Should You Get?. UpToDate*. Retrieved August 25, 2022. <https://www.comparehero.my/e-wallet/articles/best-ewallet-malaysia>.
- Davis, F. D. (1989). *A Technology Acceptance Model for Empirically Testing New End-User Information Systems: Theory and Results*; Massachusetts Institute of Technology: Cambridge, MA, USA.
- Fintech News Malaysia. (2021). *Fintech Malaysia Report 2021- Fintech Reaches an Inflection Point in Malaysia*. Fintech Malaysia. <https://fintechnews.my/27070/malaysia/fintech-malaysia-report-2021/>
- Gokilavani, R., Kumar, D. V., Durgarani, M., & Mahalakshmi, R. (2018). Can India Move Towards Digital Sovereign Currency? A Study on Perception of Consumers Towards. *International Journal of Pure and Applied Mathematics*, 119(17), 2167-2175.
- Jambulingam, T., Kathuria, R., & Doucette, W. R. (2005). Entrepreneurial orientation as a basis for classification within a service industry: The case of retail pharmacy industry. *Journal of Operations Management*, 23(1), 23-42.
- Janteng, J., & Dino, N. F. N. (2022). Investigating the Determinants of E-wallet Adoption Intention in Malaysia: An Empirical Study. *International Journal of Academic Research in Business and Social Sciences*. 12(6), 561 – 575.

- Jin, C. C., Seong, L. C., & Khin, A. A. (2018). Factors Affecting the Consumer Acceptance Towards Fintech Products and Services in Malaysia. *International Journal of Asian Social Science*, 9(1), 59-65. DOI: 10.18488/journalI.2019.91.59.65.
- Junadi & Sfenrianto. (2015). A Model of Factors Influencing Consumer's Intention to Use E-Payment System in Indonesia. *International Conference on Computer Science and Computational Intelligence (ICCCSCI 2015)*, 214-220.
- Karim, M. W., Haque, A., Ulfy, M. A., Hossain, M. A., & Anis, M. Z. (2020). Factors Influencing the Use of E-wallet as a Payment Method among Malaysian Young Adults. *Journal of International Business and Management*, 3(2), 1-12. <https://rpajournals.com/jibm>.
- Kasirye, F., & Masum, S. M. H. (2021). The Effects of e-wallet Among Various Types of Users in Malaysia: A Comparative Study. *3 rd Kuala Lumpur International Conference on Education, Economics and Technology (KLICEET2021)*, 177-194.
- Kustono, A. S., Nanggala, A. Y. A., & Mas'ud, I. (2020). Determinants of the Use of E-Wallet for Transaction Payment among College Students. *Journal of Economics, Business, and Accountancy Ventura*, 23(1), 85-95. DOI:10.14414/jebav.v23i1.2245.
- Malaysian Communications and Multimedia Commission. (2018). e-Commerce Consumers Survey 2018. Cyberjaya, Selangor: Malaysian Communications and Multimedia Commission.
- Masrom, M. (2007). Technology acceptance model and e-learning. 12th International Conference on Education, Sultan Hassanah Bolkiah Institute of Education, Universiti Brunei Darussalam. 21-24 May 2007.
- Mei, L. M., & Atan, S. A. (2021). Applying Technology Acceptance Model Towards Cashless Payment Usage Among Consumers in Kulai, Johor. *Research in Management of Technology and Business*, 2(1), 349-360. DOI: <https://doi.org/10.30880/rmtb.2021.02.01.025>
- Mohamed, N., & Ahmad, I. H. (2012). Information privacy concerns, antecedents and privacy measure use in social networking sites: Evidence from Malaysia. *Computers in Human Behavior*, 28(6), 2366-2375.
- Morgan, J. P. (2019). E-commerce payment trend: Malaysia. *UpToDate*. Retrieved August 25, 2022, from <https://www.jpmorgan.com/merchant-services/insights/reports/malaysia>.
- Morgan, J. P. (2020). E-commerce Payment Trends Report: Malaysia. *UpToDate*. Retrieved August 27, 2022, from <https://www.jpmorgan.com/merchant-services/insights/reports/malaysia-2020>.
- Muniandy, M. (2021). Factors Affecting Adoption of E-wallet Among University Students in Malaysia: A Case of Universiti Utara Malaysia. [Unpublished master thesis]. Universiti Utara Malaysia.
- Osman, S., & Yi, L. Y. (2021). Factors Influencing the Intention to Adopt e-wallet Among Students of Universiti Putra Malaysia. *International Journal of Academic Research in Business & Social Sciences*, 11(11), 1624-1641. <http://dx.doi.org/10.6007/IJARBSS/v11-i11/11650>.
- Pachpande, B. R., & Kamble, A. A. (2018). Study of E-wallet Awareness and its Usage in Mumbai. *Journal of Commerce and Management Thought*, 9-1, 33-45. DOI:10.5958/0976-478X.2018.00004.6.
- Pertiwi, D., Suprpto, W., & Pratama, E. (2020). Perceived Usage of E-wallet among the Y Generation in Surabaya Based on Technology Acceptance Model. *Jurnal Teknik Industri*, 22(1), 17-24. DOI: 10.9744/jti.22.1.17-24.

- Raimee, N., Maheswaran, L., Appannan, J. S., & Radzi, N. M. (2021). Adoption of Digital Wallet: Influencing Factors among Undergraduates in Malaysia, *International Journal of Business and Technology Management*, 3(2), 34-43. <http://myjms.mohe.gov.my/index.php/ijbtm>
- Rosnidah, I., Muna, A., Musyaffi, A. M., & Siregar, N. F. (2018). Critical Factor of Mobile Payment Acceptance in Millennial Generation: Study on the UTAUT Model. *International Symposium on Social Sciences, Education, and Humanities (ISSEH 2018)*. <https://dx.doi.org/10.2991/isseh-18.2019.30>.
- Sachdev, N. (2019). *The evolution of e-wallets: History, benefits, and withdrawals*. The Sociable. <https://sociable.co/mobile/evolution-ewallets-history-benefits-withdrawals>.
- Sekaran, U., and Bougie, R. (2013) *Research Methods for Business: A Skill-Building Approach*. 6th Edition, Wiley, New York.
- Sekaran, U. (2000). *Research methods for business: A skill-building approach* (3rd ed.). New York: John Wiley and Sons. Inc.
- Statista Research Department. (2022). Rate of Digital Wallet Usage Malaysia Q1 2019 – Q1 2022. <https://www.statista.com/statistics/1326936/malaysia-rate-of-e-wallet-usage/#statisticContainer>.
- Tariq, Q. (2020). E-wallets Offer Freebies on Top of RM30 e-Tunai initiative. *The Star Online*. <https://www.thestar.com.my/tech/tech-news/2020/01/15/e-wallets-offer-freebies-on-top-of-e-tunai-rm30-handout>.
- Teo, S. C., Law, P. L., & Koo, A. C. (2020). Factors Affecting Adoption of E-Wallets Among Youths in Malaysia. *Journal of Information System and Technology Management*, 5(19), 39-50. DOI: 10.35631/JISTM.519004.
- The Star. (2022). E-wallet usage increased by 131% in 2020. <https://www.thesundaily.my/local/e-wallet-usage-increased-by-131-in-2020-BJ9092838>.
- Trivedi, J. (2016). Factors Determining the Acceptance of e-wallet. *Journal of Applied Marketing and Management*, 1(2), 42-53.
- Uddin, M. S., & Akhi, A. Y. (2014). E-wallet system for Bangladesh an electronic payment system. *International Journal of Modeling and Optimization*, 4(3), 216-226.
- Voronenko, D. (2018). *Determining Factors of Adoption of Digital Device Wallets by Russian Consumers*. [Unpublished master thesis]. St. Petersburg University.
- Yee, T. J. (2019). *Nielsen sees security concerns as main barrier to e-wallet adoption*. DNA. <https://www.digitalnewsasia.com/digital-economy/nielsen-sees-security-concerns-main-barrier-e-wallet-adoption>.
- Wen, C. S., Meica, C., Lyn, L. J., Ta, L. J., & Kei, M. W. (2018). *Curbs on Modern Technology: Barriers of Resistance Towards E-Wallet in Malaysia* [Bachelor Dissertation, UTAR].
- Wood, S. (2013). Generation Z as consumers: trends and innovation. *Institute for Emerging Issues: NC State University*, 1-3.