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The 9th International Conference on Marketing and Retailing**INTENTION TO USE E-WALLET APPLICATION AMONG
UNIVERSITY STUDENTS**

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Abstract

The e-wallet, or electronic wallet, is among the most noteworthy technological advancements of the 21st century. This study used the Technology Acceptance Model (TAM) to explain the intention of university students to use e-wallets as a means of payment. Data was collected from university students in Malaysia using a questionnaire sent via Google Forms on several social media platforms. A non-probability sample was drawn, and the data were analysed using linear regression analysis. The results showed significant effects of perceived ease of use and perceived usefulness on e-wallet usage intention among the students. Additionally, perceived usefulness was found to be significantly predicted by perceived ease of use. This study's findings are beneficial to both academics and practitioners, contributing to the growing body of knowledge on consumer behaviour, technology, and digital payments, and serving as a foundation for e-wallet developers to understand their customers and the utility of e-wallet applications as payment methods.

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1. Introduction

Smartphone usage has become commonplace. Statistica (2022) reports that by 2022, there will be 6.648 billion smartphone users worldwide, representing 83.07 percent of the world's population and growing at a rate of 4.9 percent per year. Smartphone users use their devices for almost everything, including financial transactions. About 90 percent of smartphone owners constantly carry this device. Due to people's increasing reliance on smartphones for their day-to-day activities, the evolution and growth of these devices have become inevitable.

The huge proliferation of smartphone penetration, coupled with technological advancements, internet growth, and digital world expansion, has increased the prevalence of cashless transactions. Globally, cashless transactions are growing in popularity (Chen & Jiang, 2022; Jakubowska, 2017; Shukur et al., 2022), with steady increases in demand (Alam et al., 2021). These entail the exchange of digital currency or an electrical representation of cash, replacing physical banknotes or coins (Moon et al., 2022). Through Internet banking or mobile banking applications (apps), cashless payments complement the use of physical money (Ong & Chong, 2023). Nowadays, practically all retail stores, food and beverage outlets, supermarkets, and street vendors accept cashless payments. People rely on such payments for day-to-day financial transactions as they are quicker and more efficient (Alam et al., 2021). Moreover, using Internet-enabled mobile banking apps to make cashless payments is more cost-efficient than using cash (Ananda et al., 2020). These factors render cashless transactions a more attractive option.

An example of a cashless payment app that has permeated and dominated the economy in developed and developing countries is the electronic wallet, or e-wallet (Abdul-Halim et al., 2022). This is the digital form of a traditional wallet, which is operated via apps installed on a smartphone. It is enabled by the expansion of flexible payment providers who want to offer retailers and consumers greater incentives than those offered by banks (Kazan et al., 2018). Although cash and credit cards remain the most widely used, cashless payment via e-wallet is emerging as a convenient new way for making purchases and is becoming even more common.

1.1. Mobile Payments in Malaysia

In Malaysia, the first e-wallet, Samsung Pay, was introduced in 2017. This was immediately trailed by other household brands such as Boost and Alipay, both of which are still popular today. In 2018, Touch 'n Go, GrabPay, and WeChat Pay were launched. Touch 'n Go and GrabPay quickly rose to prominence as Malaysia's most popular e-wallets. Later, in 2020, Shopee Pay was introduced to cater to the rapid growth of Malaysian consumers on the popular e-commerce platform Shopee. According to the surveys of Oppotus (2022) and Ipsos (2022) on e-wallet usage, Touch 'n Go was Malaysia's leading e-wallet for two consecutive years, i.e., 2021 and 2022. However, the landscape of e-wallets in Malaysia has not always been friendly. Due to increasing competition in the digital wallet market, some e-wallets, such as V Cash and Razer Pay, have gone out of business (Oppotus, 2021).

Due to the popularity of e-wallets, Bank Negara Malaysia (BNM) has approved a total of 53 licenced e-wallet providers to date, i.e., six e-wallet issuers from the banking sector and 47 from the non-banking sector (Bank Negara Malaysia, 2022). In addition, the Malaysian government had taken

measures to accelerate the growth of e-wallets by announcing a RM750 million investment in 2020 to stimulate the usage of e-wallets. This is one of a set of stimulus measures launched as part of the PENJANA (Pelan Jana Semula Ekonomi - Economic Recovery Plan) to assist the economy in recovering from COVID-19. Since then, the importance of e-wallets in Malaysia has increased significantly.

2. Problem Statement

Malaysia has set a target to become a cashless society by 2020. A cashless society is one in which electronic money, such as mobile banking, internet banking, direct debits, credit and debit cards, and e-wallets, is used to pay all bills and debts. Malaysians' usage of these electronic payment methods is expected to help the nation in its shift towards becoming a cashless society. Unfortunately, the use of mobile phones for transaction-based activities such as online shopping and banking is still low, at 41.1 percent and 38.9 percent, respectively (PricewaterhouseCoopers [PwC], 2018). A recent electronic survey on digital financial behaviour, conducted by the FinTech in ASEAN 2021 research group, provided evidence of low e-wallet adoption among Malaysians who still prefer to use cash and debit/credit cards rather than e-wallets (United Overseas Bank, 2022). Given these findings, it seems that Malaysia is still far from becoming a fully cashless society.

Therefore, although e-wallets have been used for several years and have made a breakthrough in digital payments, their uptake in Malaysia is still in its infancy (Alam et al., 2021; Kiew et al., 2022; Mustafa et al., 2022; Teng & Khong, 2021). This phenomenon demonstrates that frequent smartphone use does not automatically result in e-wallet use.

3. Research Questions

The adoption of e-wallets was initially slow in Malaysia, but the onset of the COVID-19 pandemic accelerated their growth. After COVID-19, e-wallet transactions increased by 25 percent on average, implying that Malaysians will continue to accept digital payments. E-wallets have mushroomed in Malaysia in recent years, with new platforms springing up all the time. They gained significance due to high internet and mobile penetration of 96.8 percent and 98.7 percent, correspondingly (Department of Statistics Malaysia [DOSM], 2022). According to Google's Economy SEA 2021 report (Asia, 2021), since the pandemic's commencement until the first half of 2021, Malaysia has gained almost three million new digital consumers. The growth of digital transactions has been further fuelled by Malaysian businesses, with 98 percent of businesses accepting digital payments.

Despite the growing phenomenon, the growth of e-wallet remains sluggish. Therefore, this study aims to investigate university students' intention to use e-wallet as a means of payment. In particular, the research questions are:

- i. Does perceived ease of use significantly affect the perceived usefulness of e-wallet apps as a form of payment?
- ii. Does perceived ease of use significantly affect the behavioural intention to utilise e-wallet for making payments?

- iii. Does perceived usefulness significantly affect the behavioural intention to utilise e-wallet for making payments?

4. Purpose of the Study

This study is motivated to explore the complex and intriguing behavioural intentions of e-wallet adoption, an area where empirical research is still lacking (Lee et al., 2022). Research on consumer behaviour usually examines behavioural variables such as intention. Nevertheless, according to Abdullah et al. (2020), the factors that influence e-wallet intention in Malaysia are still unknown. In response to their proposal, this study examines Malaysians' intention to use e-wallets by leveraging Davis' (1989) Technology Acceptance Model (TAM) for predicting consumers' behavioural intentions and thus examining e-wallet adoption as a novel technology. The TAM has been broadly utilised for measuring new technology acceptance.

Specifically, the TAM model in this study was used to examine the following:

- i. The significant effect of perceived ease of use on the perceived usefulness of e-wallet apps for making payments.
- ii. The significant effect of perceived ease of use on the behavioural intention to utilise e-wallet apps for making payments.
- iii. The significant effect of perceived usefulness on the behavioural intention to utilise e-wallet apps for making payments.

5. Research Methods

The current work aims to examine the correlation between perceived ease of use (PEOU) and perceived usefulness (PU), as well as the impacts of PEOU and PU on the behavioural intention (BIU) to utilise e-wallet apps. A survey was carried out using Google Form questionnaires, which were disseminated on numerous social media platforms, including WhatsApp, Facebook, Twitter, and LinkedIn. The questionnaire method was chosen because it is efficient at gathering huge amounts of data from varied groups, making it both cost-effective and convenient. It also includes validation features to ensure that respondents fully answer all questions.

5.1. Research Instruments

There were two sections to the questionnaire. The first one was dedicated to gathering the respondents' demographic data, including their gender and age. The second section was dedicated to identifying their agreements regarding the statements made on PEOU, PU, and BIU. All items on PEOU, PU, and BIU were adapted from Davis (1989), Davis et al. (1989), and Venkatesh et al. (2003). A five-point Likert scale was used to measure the responses given to the items. Data analysis was carried out utilising the Statistical Software for Social Sciences (SPSS), and the relationship between PEOU, PU, and BIU was examined using descriptive and regression analyses.

5.2. Research Sample

The questionnaires were completed by 251 Malaysian students enrolled in tertiary institutions. The respondents were selected through convenience sampling, with assurance of privacy and confidentiality. The respondents were generally familiar with the internet as well as the concept of e-wallet apps, having used them to make payments or conduct transactions. The study sample comprised 251 students from various Malaysian tertiary educational institutions. Out of the 251 responses, males made up 43.8 percent, whilst females comprised the remaining 56.2 percent. Malays comprised 97.6 percent of the population, and the rest are non-Malays. In terms of age, the majority of the respondents (78.5 percent) are between 20 and 23 years old, followed by those 24 years and older (11.5 percent) and between 18 and 20 years old (10 percent). About 88.4 percent of the participants are currently pursuing a bachelor’s degree.

6. Findings

6.1. Regression Analysis

The hypotheses testing was carried out via regression analysis:

- i. H1: PEOU has a significant influence on the PU of e-wallet users’ apps as a form of payment.
- ii. H2: PEOU of e-wallet apps significantly influences university students’ BIU e-wallet apps as a payment method.
- iii. H3: PU of e-wallet apps significantly influences university students’ BIU e-wallet apps as a payment method.

The first regression analysis examined the relationship between PEOU and PU, while the second examined the relationship between PEOU and PU with BIU. The intensity or degree of the link between two or more independent variables and a dependent variable can be simultaneously ascertained using regression analysis. R is a number that falls between 0 and 1. If the value approximates 1, the relationship is deemed strong; if it nears 0, the link is deemed weak. Determination analysis is used in linear regression to simultaneously compute the percentage contribution of the independent variables' influence on the dependent variable. The percentage of variation in the independent variable utilised in the model which may account for variations in the dependent variable is represented by this coefficient. Table 1 presents the summary of the regression analysis for this study.

Table 1. Summary of regression table

Model	DV	Model Summary		ANOVA		IV	Coefficients		t	Sig.
		R	R ²	F	Sig.		Unstd Coefficients	Std Coefficients		
							Beta	Beta		
1	PU	.690	.477	226.724	.000	Constant	1.119		5.458	.000
						PEOU	.711	.690	15.057	.000
2	BIU	.646	.417	88.800	.000	Constant	1.093		4.705	.000
						PU	.395	.390	5.816	.000
						PEOU	.326	.312	4.660	.000

6.2. Relationship Between PEOU and PU

Referring to Table 1 on the relationship between PEOU and PU, the value of R is 0.690, denoting a strong relationship. PEOU accounts for approximately 48 percent ($R^2 = .477$) of the variance in PU, with the remaining 52 percent affected and justified by the variables excluded from the research model. Based on the ANOVA results, the regression model is significant ($F = 226.724$, $p = 0.000$), thus rejecting the null hypothesis. The beta variable's coefficient of PEOU is 0.711, illustrating the relationship between PEOU and PU. Any increase in PEOU raises PU and vice versa.

With respect to H1, PEOU is indicated to significantly and directly affect PU. Hence, it can be said that a system's usability should increase its usefulness. In the case of this study, the university students believe that the effort required to learn and use e-wallet apps is minimal and that the simplicity of the system will lead to an improvement in their performance. In other words, e-wallet apps are useful to them if they find the apps easy to use. The positive relationship between PEOU and PU was also demonstrated in past studies (Amin et al., 2014; Chawla & Joshi, 2019; Karim et al., 2022; Ming et al., 2020; Yang et al., 2021).

6.3. Relationship Between PEOU and PU With BIU

Based on Table 1, the relationship between PEOU, PU, and BIU has an R value of 0.646, denoting a strong relationship. PEOU and PU explain 42 percent ($R^2 = .417$) of the variance in BIU, with the remaining 58 percent explained by factors other than the research model. The ANOVA result showed a statistically significant difference in the variables, with $F = 88.800$ and $p = 0.000$, indicating that the hypotheses are accepted. PU has the most sway over the BIU, followed by PEOU. PEOU and PU have positive beta coefficients of 0.326 and 0.395, indicating a relationship between PEOU and PU and BIU. When PEOU and PU rise, so does BIU, and vice versa.

Concerning H2, PEOU and BIU were found to have a significant relationship. As consumers perceive e-wallet apps as easy to use, time and cost savings will help increase the benefits. This study supports the findings of Chawla and Joshi (2019), Malik and Annuar (2021), and Yang et al. (2021). E-wallet providers should constantly focus on and stay abreast of the latest technologies that enable users to use e-wallet apps instantly, controllably, ubiquitously, clearly, understandably, conveniently, easily, flexibly, affordably, and with less processing time. Additionally, an attractively designed and easy-to-use user interface increases the PEOU of the system and the likelihood that the application will be adopted.

In relation to H3, and in line with previous research, this study discovered that PU has a positive and significant impact on BIU in relation to e-wallet apps. The study confirms previous research findings that PU significantly influences customers' intention to use e-wallet apps (Chawla & Joshi, 2019; Karim et al., 2020). E-wallet apps are designed to be convenient, thus making them appealing. They can be used anytime and anywhere, given the availability of merchants that use e-wallet apps as transaction tools. Using e-wallet apps can also improve efficiency as they expedite the service process and transaction times. Customers today, particularly the young, are extremely choosy and do not want to sacrifice app efficiency due to their hectic lifestyles. Therefore, it is critical to highlight the advantages of e-wallet apps

in terms of utility and efficiency. The higher the PU, the more popular BIU e-wallet apps are as payment methods among students.

7. Conclusion

The usage of e-wallets is gaining traction among Malaysians, especially young consumers. University students comprise a large portion of the Malaysian population who use technology daily. Their generation will make up the majority of the country's workforce in the coming years, and their purchasing power and influence will shape the world of commerce. This makes it all the more important for businesses to attract and retain these young consumers. Businesses that have yet to accept contactless payments or explore options such as e-wallets face the risk of falling behind as this generation of consumers prefers such payment options. The results of this study revealed that the greater utility and functionality of e-wallet apps could lead to increased use of e-wallets by these young customers. It is therefore suggested to make the existing e-wallet apps more convenient, easier to use, and adaptable to the needs of young consumers. E-wallets of the future may even include a much wider range of tools beyond facilitating payments; hence, the greater simplicity and practicality of e-wallet apps must be conveyed.

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