

Investigating Factors Influencing Consumers' Intention to Adopt E-Wallet among Generation Z in Selangor, Malaysia

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ABSTRACT

E-wallet is one of the fastest-growing payment trends in Malaysia. The COVID-19 pandemic is an impetus for more Malaysians to use the e-wallet. Despite its enormous potential, e-wallet usage in Malaysia is still low. The paper aims to understand the factors that influence the adoption of e-wallet among Generation Z consumers in Selangor, Malaysia. Primary data were obtained through an online survey using a self-administered questionnaire. The final sample consisted of 402 Gen Z consumers selected by the purposive sampling method. The data collected were analysed using Statistical Package for Social Science (SPSS) version 25. The findings show that effort expectancy, performance expectancy, facilitating conditions, and social influence significantly affect consumers' intention to adopt e-wallet. However, the result revealed that perceived quality did not indicate any significant impact on consumers' intention to adopt e-wallet. The current study adds to the body of knowledge in the field of consumer behaviour in Malaysia. The findings can serve as a guideline for e-Wallet companies in Malaysia to implement suitable strategies to attract more Gen Z customers. To stay competitive in the market, e-wallet companies need to initiate more effort to connect with this generation.

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1 INTRODUCTION

The advancement of information technology has facilitated innovation in electronic payment, and many businesses are now accepting cashless transactions (Halim et al., 2020). One of the electronic payments that are tremendously used worldwide is e-wallet or digital wallet. An e-wallet allows a buyer to make digital transactions using any electronic device or online service

(Phophalia et al., 2018). E-wallet users can make safe transactions without physical money by scanning a QR code or tapping their mobile devices. As of June 2020, two-fifths of Malaysian consumers had adopted e-wallets putting Malaysia in first place in terms of e-wallet adoption among Southeast Asian countries (MasterCard Impact Study, 2020).

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The E-wallet market is expected to grow further, with 42 e-wallets providers have received official licenses from Bank Negara Malaysia. Among the top e-wallet players in Malaysia are Boost, Touch ‘n Go eWallet, GrabPay, FavePay, and WeChat Pay (Celcom, 2021). In order to remain competitive, e-wallet players are constantly upgrading their platforms by adding new features to their e-wallets.

E-wallet use is prevalent among younger and tech-savvy users. Compared to other generations, Generation Z is the most active e-wallet user. According to a survey on e-wallet usage in Malaysia conducted by Oppotus, 71 percent of Generation Z had utilised e-wallet service in Q3 2020 (see Figure 1). Generation Z is the generation that grew up with technology since the beginning of their lives, and they are ready to adopt new technology like e-wallet. Thus, Generation Z can be targeted as an important customer segment for e-wallet. The e-wallet market will continue to grow; therefore-wallet providers in Malaysia need to find ways to encourage more customers to use the platform.

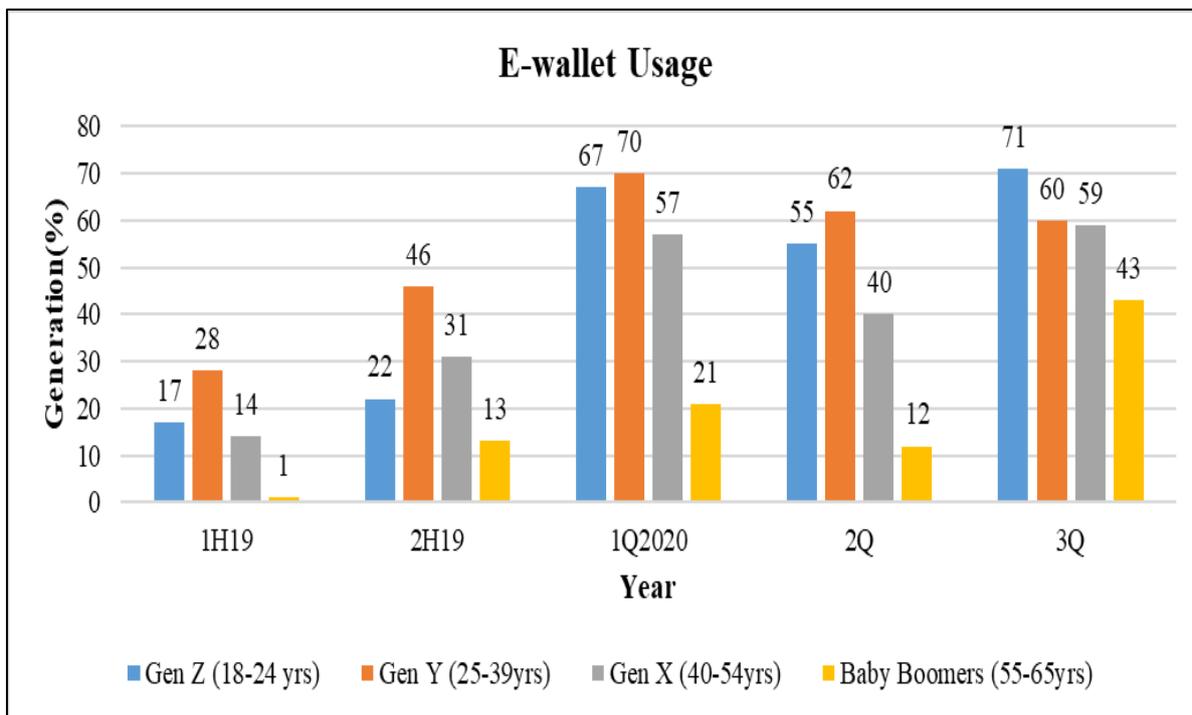
In line with the Malaysian vision of building a cashless society, the Malaysian government has introduced several initiatives to promote cashless spending amongst Malaysian youths. For instance, the eBelia programme was launched by the Ministry of Finance in 2021 to alleviate the financial burden of Malaysian youths aged between 18 to 20 years and full-time students. Under this programme, qualified youths can redeem RM150 e-wallet credit from Touch ‘n Go

eWallet, BigPay, Boost, and ShopeePay (The Star, 2021). Under the newly tabled Budget 2022, two million youths are expected to receive RM150 eWallet credit under a new e-wallet centric programme for youth called eStart. A total of 2 million Malaysian youths will benefit from the initiative. The right strategies and incentives can boost public confidence in using e-wallet.

E-wallets have been mushrooming in Malaysia over the last few years. There are more than 40 e-wallet providers in Malaysia, serving 30 million populations. Meanwhile, China with a population of 1.4 billion, is only served by two leading e-wallet players, WeChat Pay and Alipay (Tan, 2020). Although there are many e-wallet providers available in Malaysia, e-wallets have yet to become the preferred way of payment for Malaysians. According to Global Payment Report (2020), cash is the most popular payment option in Malaysia (43 percent), followed by credit cards (24 percent) and digital or mobile wallets (13 percent).

Recently, Netizen Experience has conducted a survey and found that most Malaysian consumers (29.3 percent) still prefer to pay with cash because they believe it is more accessible at stores and allows them to keep track of their spending (Malaysiakini, 2021) (see Figure 2). Low acceptance by merchants is another stumbling block in the path to greater e-wallet usage. Many brick-and-mortar businesses in Malaysia do not accept e-wallet payments, and this situation can discourage consumers from using the service (Alam, Awawdeh, & Muhamad, 2021).

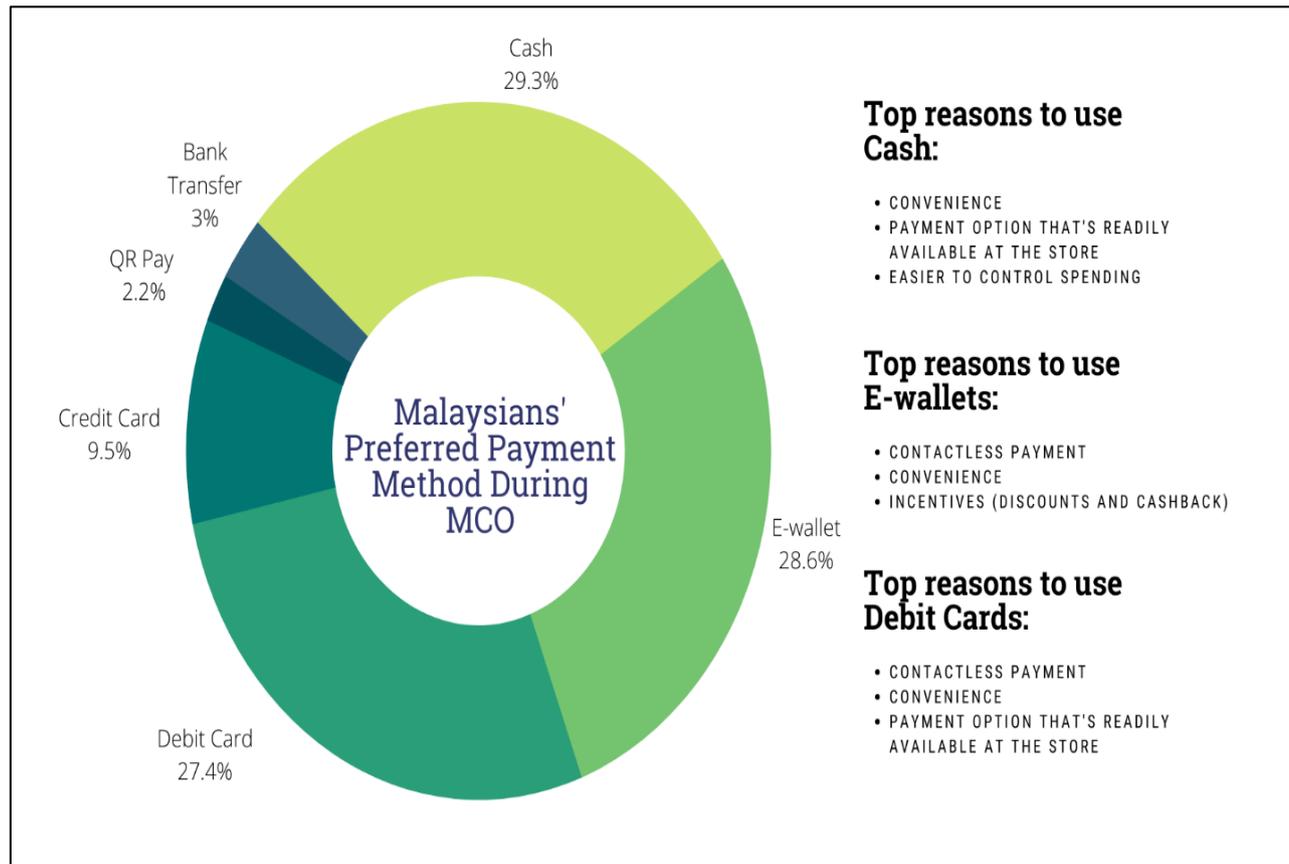
Figure 1
E-Wallet Usage in Malaysia



Source: Oppotus (2020)

Figure 2

Malaysians' Preferred Payment Method During MCO



Source: Malaysiakini (2021)

The adoption of e-wallet has become an increasingly important topic that has drawn much attention from scholars. Previously, researchers had investigated e-wallet adoption among smartphone users (Tenk, Yew & Heang, 2020), undergraduates (Raimee et al., 2021), and youths (Yaakop et al., 2021; Teo, Law & Koo, 2020) in Malaysia.

However, attempts to examine factors that trigger Generation Z in Malaysia to use e-wallet have yet to be explored. Hence, the current study used the Unified Theory of Acceptance and Use of Technology (UTAUT) model as the theoretical basis to investigate the impact of performance expectancy, effort expectancy, social influence, facilitating conditions, and perceived quality on intention to adopt e-wallet among Generation Z consumers in Selangor, Malaysia.

2 LITERATURE REVIEW

We have developed a research framework based on the Unified Theory of Acceptance and Use of Technology (UTAUT) model proposed by Venkatesh et al. (2003). The UTAUT model postulates that the acceptance and adoption of *new technology* is primarily influenced by four key constructs (i.e., performance expectancy, effort expectancy, social influence, and facilitating conditions).

Scholars have proposed and validated perceived quality as a crucial factor in predicting customers' intention to adopt new technology. In previous studies, perceived quality

was verified as the significant determinant of behavioural intention in the context of mobile communication technology (Kumar, 2013), online shopping (Nasib et al., 2020), and mobile commerce (Lee & Chen, 2014).

However, empirical investigation of the relationship between perceived quality and wallet usage is still scarce. Therefore, the primary goal of this research is to gain a better understanding of the adoption of e-wallet among Generation Z in Malaysia. Behavioural intention of consumers to use e-wallet is examined through performance expectancy, effort expectancy, social influence, facilitating conditions, and perceived quality.

Performance Expectancy

Performance expectancy (PE) is conceptualised as "how much technology will benefit consumers to accomplish certain tasks" (Venkatesh et al., 2003). Performance expectancy has been recognised as a significant factor influencing individuals' acceptance of technologies.

Previous studies have shown that performance expectancy positively affects individual intentions to use mobile payments (Jun, Kwon & Kim, 2020; Nur & Panggabean, 2021). As per the findings of Junadi and Sfenrianto (2015), performance expectancy positively influenced behavioural intention to use e-payment systems.

They also highlighted that performance expectancy could be improved when the electronic payments systems can provide a *quick, easy and secure* solution to make *payment*. E-wallet allows users to make payments in stores, apps, or the web. Young consumers, in particular, are more likely to adopt e-wallet because it is much faster and easier than using cash. Therefore, we postulate the following hypothesis:

H1: Performance expectancy has a positive influence on consumers' intention to adopt the e-wallet

Effort Expectancy

Effort expectancy (EE) is defined as "the degree of ease associated with the use of the system" (Venkatesh et al., 2003). When users discover that a system is simple to use, they will be more likely to use it (Zhou et al., 2010). Empirical evidence suggests that effort expectancy is a key determinant for users to adopt internet banking (Sánchez-Torres et al., 2018), e-commerce (Zhou et al., 2021) and mobile payment systems (Wang & Yi, 2012, Gupta & Arora, 2019).

Tusyanah and Khafid (2021) reported that effort expectancy is a salient factor in explaining intention to use e-wallet among Indonesian students. In the context of e-wallet, users expect the system to be error-free and easy to use. When the operation of the e-wallet platform is easy, and the process is simple, users will be more interested in using it. Thus, the following hypothesis is proposed for this study:

H2: Effort expectancy has a positive influence on consumers' intention to adopt the e-wallet.

Social Influence

Social influence (SI) is "the degree to which an individual perceives that it is important that others believe he or she should use the new system" (Venkatesh et al., 2003, p.451). Social influences from peers and family can have a powerful effect on individual decisions and behaviour. When considering whether or not to accept an unknown technology, people frequently consult the views of others.

According to Alwi et al. (2021), people would adopt a particular technology when friends around them recommend that they should use it. A positive relationship between social influence and usage behaviour was confirmed by several studies, such as the adoption of mobile banking (Bhatiasevi, 2015), mobile payment (Lin, Lin & Ding, 2020), and internet payment systems (Amin et al., 2017). This study therefore, proposes the following hypothesis:

H3: Social influence has a positive influence on consumers' intention to adopt the e-wallet

Facilitating Conditions

Facilitating conditions (FC) refers to the utilisation of organisational resources and equipment to support human behaviour (Venkatesh et al., 2003). Consumers who have access to a favourable set of facilitating conditions are more inclined to employ new technology. Rachmawati et al. (2020) discovered that facilitating conditions had a positive influence on users' intentions to use digital payment.

Lin, Lin and Ding (2020) have confirmed that there was a strong link between facilitating conditions and consumer intention to use mobile payment. In addition, a study by Rahi, Mansour and Alnaser (2018) found that facilitating conditions motivate commercial banks customers to adopt internet banking services. Overall, previous empirical studies have shown that facilitating conditions is a good predictor of new technology adoption, thus facilitating conditions can also be treated as a predictor of e-wallet adoption.

Facilitating conditions are external factors that are usually beyond a person's control. According to Tusyanah et al. (2021), e-wallet functionality depends on conditions such as mobile phone devices and network coverage. The number of smartphone users is rising rapidly over time, and people have become more comfortable using e-wallets for everyday expenses. Drawing from the above discussions, the following hypothesis is proposed:

H4: Facilitating conditions has a positive influence on consumers' intention to adopt the e-wallet

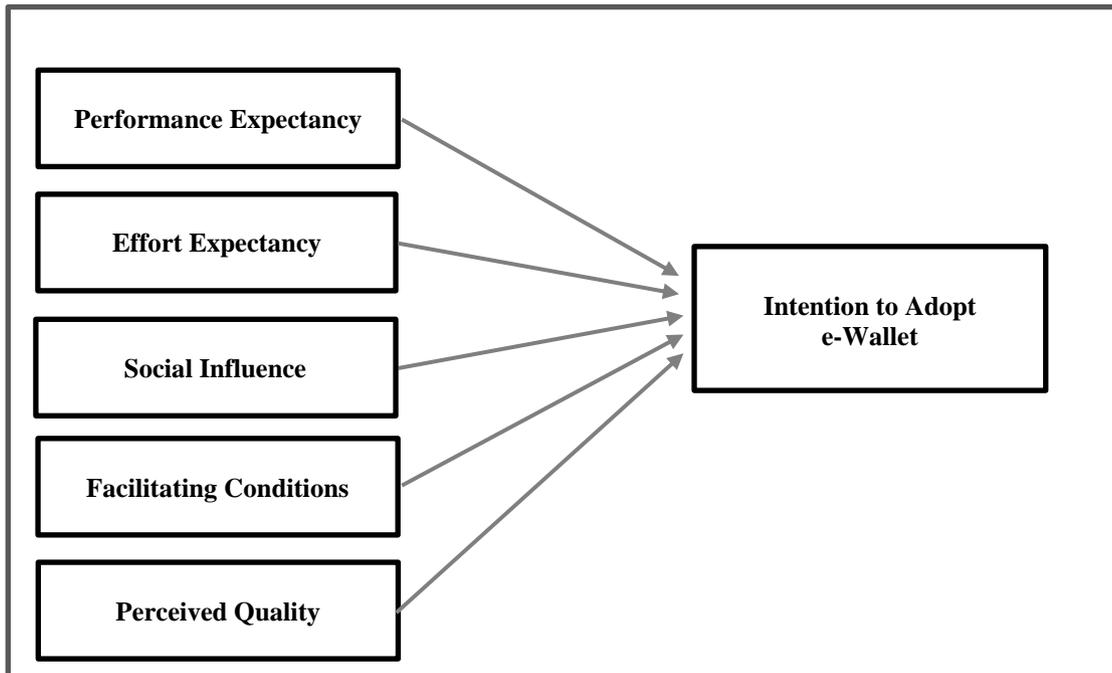
Perceived Quality

Perceived quality (PQ) is defined as the customer's judgement about a product or service covering overall excellence or superiority (Snoj et al., 2004). Service quality is determined by how well it meets the client's expectations. According to Rowley (1998), perceived service quality is a type of attitude that results from comparing expectations with a perception of performance. For mobile Internet providers, perceived quality is crucial as it can help them acquire clients by delighting them on their first visit (Chae et al., 2002).

They believed that services that meet or exceed customer expectations could encourage clients to use the service repeatedly in the future. Prior studies have recognised perceived quality as a significant predictor of technology adoption, such as mobile commerce (Lee & Chen, 2014), mobile payment (Caldeira et al., 2021), and online shopping (Lestari et al., 2020). However, there is a lack of studies that examine the impact of perceived quality on e-wallet usage. Therefore, this current study intends to investigate whether perceived quality could enhance e-wallet adoption among Malaysian Generation Z consumers. Thus, the following hypothesis is proposed:

H5: Perceived quality has a positive influence on consumers' intention to adopt the e-wallet.

Figure 1
Research Framework



3 METHODOLOGY

Sample and Data Collection

An online survey via Google form was used for data collection. Purposive sampling method was adopted in this study. Purposive sampling, also known as selective sampling, is “a method of sampling where the researcher deliberately chooses whom to include in the study based on their ability to provide necessary data” (Parahoo, 2014, p. 232).

In this study, the sample selection process takes into account several criteria. First, the participants in this study must be Selangor citizens. Next, only individuals aged between 18 and 24 years (Generation Z). This age group has strong purchasing power and great potential to adopt e-wallet. Unqualified respondents were removed if they did not meet the above criteria. Generation Z was born between 1997 and 2012 (Pew Research, 2019). The age group for Generation Z is in the range of 9-24 years old in 2021. Generation Z consumers were selected because they are the largest and most important customer segments for the e-wallet industry in Malaysia.

As the most tech-savvy generation, Generation Z is more immersed in online activities and prefers to use electronic payments such as e-wallet. Selangor is the most developed state in Malaysia (Invest Selangor, 2020). The progressive development and urbanisation of the state have driven *many* businesses to embrace digital wallet technology. This situation has created huge possibilities for e-wallet services to grow.

A total of 402 usable data were collected. There were 246 female respondents (61.2 percent) and 156 male respondents (38.8 percent). Most respondents were 22 – 24 years old (66.7 percent). With respect to employment status, 49.5 percent of them were private-sector workers. Malay comprised most of the sample with 201 participants (50 percent), followed by Chinese (31.1 percent), and Indian (18.7 percent). Overall, 62.2 percent of the respondents preferred to use Touch ‘n Go eWallet. The demographic profiles of respondents are presented in Table 1 below.

Table 1
Demographic Profiles of the Respondents

Item	Descriptions	Frequency	Percentage (%)
Gender	Male	156	38.8
	Female	246	61.2
Age	18-19 years old	34	8.5
	20-21 years old	100	24.9
	22-24 years old	268	66.7
Education level	SPM	137	34.1
	STPM	82	20.4
	Bachelor's Degree	161	40.0
	Master's Degree	22	5.5
Marital status	Single	358	89.1
	Married	44	10.9
Ethnicity	Malay	201	50.0
	Chinese	125	31.1
	Indian	75	18.7
	Others	1	0.2
Occupation	Student	128	31.8
	Government servant	14	3.5
	Private sector worker	199	49.5
	Self-employed	39	9.7
	Unemployed	22	5.5
Monthly income	Do not have income	113	28.1
	RM 1,500 and below	109	27.1
	RM 1,501- RM 2,500	123	30.6
	RM 2,501- RM 3,500	35	8.7
	RM 3,501- RM 4,500	11	2.7
	RM 4,500 and above	11	2.7
Kind of E-Wallet Used Most by Respondents	Touch 'n Go eWallet	250	62.2
	GrabPay	64	15.9
	Boost	20	5.0
	FavePay	9	2.2
	MAE	56	13.9
	Others	3	0.7
Monthly Spend on E-Wallet	RM 100 and below	209	52.0
	RM 101- RM 300	148	36.8
	RM 301- RM 500	30	7.5
	RM 500 and above	15	3.7

Measures

The questionnaire consists of two main sections. The first section focused on the demographic data of the respondents. The second section consisted of 24 items that were used to measure the five constructs presented in the research model. A five-point scale was employed, ranging from 1 (Strongly disagree) to 5 (Strongly agree). The main constructs of the UTAUT model (i.e., performance expectancy, effort expectancy, social influence, and behavioural intention) were adapted from Khang and Kang (2020). Perceived quality was measured by using an instrument developed by Shin (2009).

4 RESULTS

Reliability Test

Cronbach's alpha was used to verify the reliability of the measurement items employed in this study. Cronbach's alpha values at the range of 0.7 and above are considered acceptable (Nunnally, 1978)

Table 2
Cronbach's Alpha Test Results

Variables	No. of Items	Cronbach's Alpha
Performance Expectancy	4	0.860
Effort Expectancy	4	0.881
Social Influence	4	0.866
Facilitating Conditions	4	0.770
Perceived Quality	3	0.789
Behavioural Intention	5	0.808

As shown in Table 2, Cronbach's alpha values for all variables exceeded the threshold value of 0.7, thereby confirming high internal reliability.

Table 3
Hypotheses Testing Results

Hypothesis	Relationship	β	S.E.	T	Sig.	Results
H1	PE \longrightarrow I	0.419	0.054	7.440	0.000*	Supported
H2	EE \longrightarrow I	0.211	0.055	3.929	0.000*	Supported
H3	SI \longrightarrow I	0.083	0.027	2.229	0.026*	Supported
H4	FC \longrightarrow I	0.171	0.050	3.605	0.000*	Supported
H5	PQ \longrightarrow I	0.019	0.046	0.435	0.664	Rejected

(*) Significant at $p < 0.05$, at one-tailed T statistics value of 1.65

PE= Performance Expectancy, EE= Effort Expectancy, SI= Social Influence, FC= Facilitating Conditions, PQ= Perceived Quality, I= Behavioural Intention

As depicted in Table 3, it was evident that four out of five hypotheses were found to be significant with a level of $p < 0.05$. The e-wallet usage intention was positively affected by PE ($\beta = 0.42$, $t = 7.44$), EE ($\beta = 0.21$, $t = 3.93$), SI ($\beta = 0.08$, $t = 2.23$), and FC ($\beta = 0.17$, $t = 3.61$). However, PQ did not exhibit any significant influence on BI ($\beta = 0.02$, $t = 0.44$). Therefore, hypotheses H1, H2, H3, and H4 were supported, while H5 was not supported.

5 DISCUSSIONS

The findings of the current study have proven that that performance expectancy positively affects the behavioural intention of Gen Z consumers to adopt e-wallet. New technology or system should be able to anticipate customer needs and expectations.

For instance, Sivathanu (2019) highlighted that people are more willing to continue adopting a technology if it is simple and user friendly. Gen Z grew up in a digital environment, and they are quick to embrace new technology such as e-wallet that can make their life much easier.

Concurrent with previous studies (Chopdar et al., 2018; Sivathanu, 2019), this study confirms the role of efforts expectancy in predicting Gen Z consumers' intention to adopt e-wallet. Undale et al. (2020) have highlighted that users will have a greater intent to use technology if they perceive that it is easy and does not require much energy to utilise it. The e-wallet

system was developed for consumers who wish to perform financial transactions through a computer or smartphone. Compared to traditional payment services, e-wallets allow users to make purchases in just a few clicks. Using a digital wallet will enable users to complete purchases easily and quickly without hassle.

The findings of this study have demonstrated that facilitating conditions has a significant positive influence on consumers' intention to adopt e-wallet. The results are consistent with the findings of Tiong (2020) and Rachmawati et al. (2020). Smartphones are prevalent among Malaysian youngsters, and they get a wealth of information from the Internet.

E-wallet adoption in Malaysia still requires a push to convince consumers of its added value. If e-wallet service providers want to attract more young consumers to use their applications, they need to communicate and share information in a more captivating way.

The results support the proposition that consumers' intention to adopt e-wallet is positively related to social influence. Before making a purchasing decision, consumers seek to acquire social evaluations to assess the reliability and value of the service provided (Jung et al., 2020). Peers are frequently used as a primary reference group in various decision-making situations.

Peers can be co-workers, friends, or family members. An empirical study by Ramadhan and Simanjuntak (2018) found that peer groups serve as a reference point that influences individuals' intention to use mobile payments. According to Talukder (2012), individuals can master innovation skills quickly because of the continuous feedback and support from peers. In the context of this study, peer's pressure and feedback can be a driving force in influencing individual decisions to adopt e-wallet.

Our research results do not support H5, which means that perceived quality is not significantly correlated with consumers' intention to adopt e-wallet. Kato (2021) contended that consumers are more attracted to brands that emphasise on emotional value rather than functional value (perceived quality and perceived price). Asshidin, Abidin and Borhan (2016), in their research, posited that emotional value plays a critical role in forming Malaysian consumers' purchase intention.

In order to gain a competitive advantage in the industry, e-wallet service providers in Malaysia need to pay more attention to fulfilling customers emotional needs. One way to harness emotional needs is to highlight the rewards and benefits of using e-wallets. To encourage users to load more funds into their e-wallet and carry out more transactions with merchants, e-wallet service providers will reward them with vouchers, cash back or reward points.

CONCLUSION

The results have demonstrated the importance of performance expectancy, effort expectancy, social influence, and facilitating conditions in predicting consumers' behavioural intention to use e-wallet. From a practical viewpoint, the findings would benefit e-wallet providers in Malaysia in formulating appropriate marketing tactics and strategies to attract more people to use their applications. This study also offers significant insights for policymakers to devise better strategies to boost the growth of the digital wallet industry in Malaysia. The research has several limitations that need to be addressed. Firstly, the respondents are confined to e-wallet users in Selangor. Thus, the collected sample may not accurately represent the entire Malaysian Generation Z. To obtain a higher generalisability of the results, future studies need to include e-wallet users from all states in Malaysia. Second, due to the constraints of time and resources, this study only captures data from Generation Z. Given the fact that Gen Y and Millennials are also heavy users of e-wallet, the model proposed in this study can be used to evaluate e-wallet adoption among these generations. Finally, the current study focused on examining the effect of performance expectancy, effort expectancy, social influence, facilitating conditions, and perceived quality on intention to adopt e-wallet. Future research could develop a more comprehensive research model by adding mediating or moderating variables.

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