

Impact of COVID-19 Pandemic on Consumer Behavior towards the Intention to Use E-Wallet in Malaysia

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ABSTRACT

The technology-driven era has encouraged Malaysians to use e-Wallet rather than paper money in their daily transactions. Numerous e-Wallet applications have been developed, such as GrabPay, Touch 'n Go eWallet, and Boost. Erstwhile, Malaysians perceived that using e-Wallets is troublesome and worthless. However, the COVID-19 outbreak has reframed the buyers' perceptions otherwise. This study investigates the impact of Covid-19 on consumer behavior towards the intention to use e-Wallet in Malaysia. A sample of 100 Malaysians has voluntarily participated in this survey. Data were assembled through an electronic survey questionnaire. Contrary to popular belief, the findings depicted that the behavioral intention to use e-Wallets among Malaysians had further accelerated due to the convenience perceptions, facilitating conditions, and perceived safety.

Keywords: Behavioral Intention, Convenience Perceptions, E-Wallet, Facilitating Conditions, Perceived Safety

INTRODUCTION

Along with remarkable technological development in the 21st century, a severe disease named Coronavirus disease 2019 (Covid-19) was not expected to impact growth, economy, socialization, and globalization significantly all over the world. However, the Covid-19 pandemic has brought drastic changes in various aspects globally. Eventually, the standard norm that the people usually practice was forced to be stopped for months due to the widespread disease. Regardless of children or the elderly, their daily routine

as ordinary people has been very miserable since then. As the pandemic had affected Malaysia, the country's development was halted, leading to the decline in the nation's wealth. Subsequently, the pandemic has tremendously affected the Malaysian economy, where the unemployment rate spiked in the country due to layoffs and fresh graduates struggling to find jobs. Thus, various authorities from the public and private sectors have employed multiple initiatives to prevent the disease from spreading vigorously to put the country's economy back on the path.

This research examines the impact of the Covid-19 pandemic on consumer behavior on the intention to use e-Wallet in Malaysia. Prior to the pandemic outbreak, e-Wallets have gained popularity in Malaysia and were well-known among the people. Nonetheless, the usage of e-Wallet was not demanding, especially among the elderly. The survey conducted found that only 36% of the Malaysian practice the use of e-Wallets before the outbreak. Contrarily, the remaining 64% have only started using an e-Wallet as their means of payment after the COVID-19 pandemic. This implies that most Malaysians did not perceive the significance of using e-Wallets before the Covid-19, despite being aware of the existence of mobile wallets.

e-Wallet is a digital wallet used for payment, either online or offline, via a mobile phone. Its functionality is slightly similar to contactless debit and credit cards. However, an e-Wallet is necessary to be tied to an online individual bank account to facilitate the payment process. E-Wallet is considerably safe to be used in terms of security measures as its applications are protected with a username and a strong password (Definition of E-wallets, 2021). In Malaysia, there are several server-based e-Wallets, such as Touch 'n Go eWallet, Grab Pay, Boost, WeChat Pay MY, MAE, BigPay, AliPay, and many more. According to The Malaysian Reserve, Touch 'n Go eWallet, GrabPay, and Boost have been the preferred e-Wallets among Malaysians (Birruntha, 2019).

The fact that the COVID-19 pandemic is possibly being transmitted between people in close contact with each other within one meter (Coronavirus disease (COVID-19): How is it transmitted?, 2020) has spiked the interest of the Government of Malaysian to encourage the people to adopt contactless payment. Together to increase the use of e-Wallet during the pandemic in Malaysia, the Government of Malaysia has offered great support to e-Wallet innovation, such as ePenjana, eBelia, and Shop Malaysia Online campaign (E-wallet security: What users need to know, 2019). The initiatives by all parties can be a valuable way to flatten the curve of the COVID-19 disease as there is a great likelihood that a person could be infected with the disease through the exchange of physical money between strangers. Moreover, the Short-Term National Economic Recovery Plan (ERP) also contributes to the country's electronic economy pursuits and expanding its supporting infrastructure. Even so, consumers in Malaysia may have built distinct perceptions of the prominence of e-Wallets during the pandemic. As an illustration, although cashless payment transactions are highly encouraged among Malaysians, some might still opt for the traditional payment method by using cash and coins to buy goods, especially the elderly.

Undeniably, the COVID-19 pandemic is a massive threat in Malaysia. This study investigates consumer behavior towards the intention to use e-Wallet corresponding with the Covid-19 pandemic. Daragmeh, Sági, and Zéman (2021) argued that the pandemic has positively induced the contemporary practice of mobile wallets. They found that the decision-makers should consider utilizing health risk constructs as an indicator of the protection behaviors taken by the society during the pandemic. The outbreak has not only affected purchase behavior, but also payment patterns. In this pandemic, the fast adoption of contactless payment methods has been a huge lifestyle adjustment. People are increasingly shifting away from cash transactions, thus contactless payment is a red-carpet trend that is expected to continue in the future (Rupesh et al., 2021). The sudden drastic changes in lifestyle and new normal have led to the consumer's intention to adopt a payment method that would minimize the risk of infection besides simplifying the payment process (Alwi, Salleh, Alpandi, Ya'acob, & Abdullah, 2021). This indirectly suggests that the convenience perception dictates a high significance effect on the intention to use an e-Wallet among the consumers. Perceived ease of use (convenience perceptions) also carries significance on consumers' behavioral intention, while perceived usefulness does not impact behavioral intention (Rantung, Tumbuan & Gunawan, 2020).

The findings of this study are essential as it can serve as practical input for the academic researchers, the authority, i.e., the policymakers, local businesses group, such as mobile wallet providers, and the users of e-Wallets. Societies are inclining towards the cashless community. Several bits of advice from the experts suggested that the cashless community had left people the option of using the mobile wallet. Thus, yielding the significance of researching the consumer behavior towards the intention to use e-Wallet.

The Covid-19 pandemic has rapidly affected the global economy, healthcare, and social habits (Haleem, Javaid, & Vaishya, 2020). According to Elengoe (2020), the first case of Covid-19 was detected in Malaysia on January 25, 2020, and Malaysians have been battling the disease for more than one year ever since. The Movement Control Order (MCO), which was first taken into effect on March 18, 2020, has changed the Malaysians' consumer behavior (Kong, 2020) towards the usage of e-Wallet (Sheth, 2020). Households and purchasers are forced to pursue online shopping since most physical outlets cease to operate due to lockdown in compliance with the MCO (Choudhury, 2020). Rising merchants and retailers encourage consumers to pay using an e-Wallet during online shopping or even store shopping (Yang, Mamun, Mohiuddin, Nawawi, & Zainol, 2021). Besides, an increasing number of people also perceived cash usage as a channel for Coronavirus spreading (Rooney, 2020). As a result, many consumers shifted from cash to contactless payment methods. The public acceptance and the intention to use mobile wallets have rapidly expanded since then, leading to the prevalent payment option for Malaysian consumers.

Our first objective is to examine the convenience perceptions among Malaysians towards the use of e-Wallets. Convenience can be defined as anything that is useful, simple to use, and makes life easier. It refers to any device or tools designed to minimize

consumers' time and effort (Yale & Venkatesh, 1986). The more convenient it is to use a particular technology, the higher consumers' intention of using an e-Wallet as their means of payment. As stated by Berry, Seiders, and Grewal (2002) and Seiders, Voss, Godfrey, and Grewal (2007), the convenience perceptions are vital in determining the users' intention to use e-Wallet. A comprehensive assessment of the literature on consumer convenience in the service economy was conducted by them, defining service convenience as customers' views of time and effort while purchasing or utilizing a service.

Also, facilitating conditions describe the factors and IT infrastructure available to promote the use of a regime (Chawla & Joshi, 2020). Venkatesh, Morris, Davis, and Davis (2003) suggested that facilitating conditions reflect the perceptions among consumers regarding the support and amenity available to undergo a specific behavior. The facilitating conditions significantly impact consumers' intention to acquire a product or a service (Hossain, Hasan, Chan, & Ahmed, 2017). Therefore, consumers will intend to use e-Wallets if the facilitating conditions are convenient, ease the transactions process, and ensure safety and security. For instance, the rising rate among merchants that supports the usage of e-Wallet as one of their payment avenues while transacting with consumers (Boey, 2020). Consumers are expected to continue utilizing services after experiencing the convenience of using a particular system provided by the service providers, which can facilitate payments and transactions (Yang et al., 2021).

Perceived safety refers to the consumer perception of how well they are protected from any risks (Mekovec & Hutinski, 2012). It is a subjective appraisal by consumers regarding the security of an electronic payment means (Linck, Pousttchi, & Wiedemann, 2006). According to Stroborn, Heitman, Leibold, and Frank (2004), an e-Wallet platform meets the consumer's safety expectations in every area. Lim, Lee & Kurnia (2007) identified that customers' concerns about the safety issue would influence their intention to use the e-payment method. Technically, the digital wallet platform is a constructive payment avenue for diverse purposes, especially during physical separation and self-quarantine. Furthermore, it is also an alternative remittance channel to assist the policymaker in lowering the possibility of Coronavirus spreading (Aji, Berakon, Husin, and Tan, 2020). Since the study on perceived safety was mostly based on past conditions, H1 relating to perceived safety has been hypothesized to suit the ongoing COVID-19 pandemic, as followed:

Hypothesis 1 (H1): Perceived safety positively affects the behavioral intention to use e-Wallets.

Usage intention is a fundamental approach for predicting human behavior toward possible technology adoption or rejection (Wijayanthi, 2019). The intention is commonly used to explain how attitude can impact consumer behavior and how a negative attitude can lead to negative intention and conduct (Tan, Memon, Godfrey, Sim, Leong, Soetrisno, & Hussain, 2019). This research suggests three factors that drive consumer behavioral intention to use mobile wallets, i.e., convenience perceptions, facilitating conditions, and perceived safety. This is supported by Barry & Jan (2018) suggesting

that perceived ease of use (convenience perceptions) carries crucial and positive potency on consumer behavioral intention to adopt a specific system. Intarot & Beokhaimook (2018) reported that the facilitating conditions are a supporting tool for consumers on technology usage. Additionally, perceived safety as one of the critical factors contributing to the usage intention of e-Wallet has been underlined in several studies (e.g., Chellappa & Pavlou, 2002; Khalilzadeh, Ozturk, & Bilgihan, 2017; Kim, Tao, Shin, & Kim, 2010; Pinchot, Mishra, Paullet, & Kohun, 2016).

RESEARCH METHOD

Sample and Procedure

Electronic questionnaires have been disseminated to a sample size of 100 respondents originated from various parts of Malaysia. The survey allowed the researchers to obtain vast amounts of information and substantiate validated models (Jones, Baxter, & Khanduja, 2013). The questionnaires were distributed through Google Survey – a market research platform that surveys the targeted respondents to learn about the market trends. Over 50% of the questions in the questionnaire are closed-ended questions to standardize the responses from the respondents. However, open-ended questions were adopted to learn more about consumer behavior to facilitate data gathering.

Measures

The questionnaire was administered with a four-section questionnaire to measure the factors influencing consumers' behavioral intention to use e-Wallets. One factor as the independent variable is perceived safety with a dependent variable, i.e., intention to use. The frequency and percentages of convenience perceptions and facilitating conditions have been closely examined with the consumers' intention to use e-Wallets.

As our research relates to the impact of Covid-19, a validity test was assessed on one of the independent variables - perceived safety, to ensure the reliability of the obtaining data is in line with the research concepts. Besides, Multiple Linear Regression was used to inspect the strength of the relationship between the two variables, i.e., perceived safety (independent variable) and intention to use (dependent variable).

RESULTS AND DISCUSSION

As this research focused on examining the intention of using e-Wallets in Malaysia, 100% of the respondents were Malaysians. The respondents were mainly in the age range of 21-30 years old ($M = 2.9$; $S.D. = 1.049$), over half of them were female (51%), and most were employed (37%) (see Table 1).

Table 1. Summary of Demographics ($N = 100$)

	Frequency	Percentage (%)
Nationality		
Malaysian	100	100



Gender		
Male	49	49
Female	51	51
Age		
20 years old and below	4	4
21-30 years old	38	38
31-40 years old	32	32
41-50 years old	16	16
51 above	10	10
Occupation		
Full-time student	30	30
Employed	37	37
Unemployed	4	4
Self-employed	20	20
Housewife	5	5
Retiree	4	4

Convenience Perceptions

Table 2. Summary of Convenience Perceptions (*N* = 100)

Indicators	Questions	Frequency	Percentage (%)
<i>CP 1</i>	Are you an e-Wallet user?		
	Yes	88	88
	No	12	12
<i>CP 2</i>	Is e-Wallet your primary payment method?		
	Yes	61	61
	No	39	39
<i>CP 3</i>	Which payment method do you prefer the most?		
	E-Wallet	47	47
	Cash	36	36
	Credit or Debit Card	17	17
<i>CP 4</i>	Do you think the usage of e-Wallet is convenient?		
	Yes	81	81
	No	4	4
	Maybe	15	15
<i>CP 5</i>	Do you think that the usage of e-Wallet is more convenient than cash during this COVID-19 pandemic to reduce the contact among people?		
	Yes		
	No	73	73
	Maybe	5	5



		22	22
CP 6	Please select the type of e-Wallet applications that you have used. (Multiple options)		
	Touch 'n Go eWallet	90	90
	GrabPay	60	60
	Boost	21	21
	WechatPay	11	11
	ShopeePay	4	4
	AEON Debit	1	1
	Lazada Wallet	1	1
	Maybank2U	1	1
CP 7	Please select the type of transactions that you have done by using e-Wallet. (Multiple options)		
	Food ordering	74	74
	Bill payments	68	68
	Funds transfer	52	52
	Ticket booking	28	28
	Parking & tolls	17	17
	Groceries	6	6
	Online Shopping	1	1

Table 2 indicates that 88% of 100 respondents are users of e-Wallets (CP 1), and 61% employed e-Wallet as their primary payment method (CP 2). According to World Payments Report of 2020, the amount of global cashless transactions has accelerated by 14% between 2018 and 2019, reaching a total of 708.5 billion (Non-cash payments volume, 2021). E-Wallets is the primary payment avenue (47%), followed by cash (36%), and credit or debit card of 17% (CP 3).

To prevent the Covid-19, most people prefer to avoid interaction with others. People seem to prefer e-wallet since it is the most convenient cashless payment mechanism at drive-thrus. This highlights the benefits of utilizing cashless payment methods, which are rapid, easy, and contactless during the Covid-19 pandemic (Kee et al., 2021). Indeed, cash usage is diminishing since the introduction of contactless payment (Ismail, 2021). The outbreak of the Covid-19 pandemic has resulted in cash usage declining by 64% as consumers have deviated to another contactless payment method (Malaysia leads e-wallet usage in South-East Asia, 2020).

A total of 81% of the respondents agreed that the usage of e-Wallet is convenient, and 4% perceived otherwise, with the remaining 15% being unsure (CP 4). Basically, e-Wallets serve as a payment means for almost all online products or services, which directly contributes to the convenience factor. However, the Coronavirus was turn out to be a further inducement for the societies to practice cashless and divert to mobile wallet payments that help to reduce contacts between people (E-Wallet Usage in Malaysia



2020: Thriving in Lockdown, 2020). Choi & Sun (2016) argued that the perceived convenience of using e-Wallets had triggered the intention of the younger generation to adopt mobile payment. When the services and technology provided are easily accessible, users intent to adopt them (Boden, Maier & Wilken, 2020). Therefore, this constructs the linkage with *CP 5*, where most respondents (73%) appraised that using e-Wallets is more convenient than cash during the COVID-19 pandemic, to reduce contacts among people. Wong & Ismail (2020) noted that e-Wallet payment is the apparent option for the Malaysian while transacting in compliance with the physical distancing policy. Aji et al. (2020) mentioned that the driving behavioral intention of using e-Wallets rather than cash is due to the concern that Covid-19 can be transmitted through the exchange of physical money.

Touch 'n Go e-Wallet being the most preferred e-Wallets by the respondents followed by GrabPay, Boost, WechatPay, ShopeePay, and AEON Wallet (*CP 6*). Our findings were aligned with the statistic of Bank Negara Malaysia (BNM) which indicates the five most widely e-Wallet applications being used which are AEON Wallet, Boost, GrabPay, WechatPay, and Touch 'n Go eWallet (Karim, Haque, Ulfy, Hossain, & Anis, 2020). According to Chew (n.d.), GrabPay is the most actively used application in the third quarter of 2019, while Touch 'n Go e-Wallet being the fastest rising in terms of ranking among all the e-Wallet applications. Rohiman (2020) reported that within 2017, Touch 'n Go eWallet and Boost have both earned a few million users, while Grab MY argued that its e-Wallet application, i.e., GrabPay, was used by two out of three Malaysians. Findings from Hussain, Mkpojiogu, Kamal, Wahab, and Meh (2021) indicated positive users' experiences reported by participants of their research using the Touch 'n Go eWallet application with a mean exceeding 4.0. In other words, consumers intend to use a particular e-Wallet application if they perceive that the specific application would result in greater convenience and ease of use.

It is also notable in Table 2 that most respondents used e-Wallets in ordering food, bill payments, funds transfer, and booking, parking, and toll tickets (*CP 7*). The increasing number of e-payment systems supported by e-Wallets has prompted mobile payment, be it food delivery, and bill payment (Rosnidah, Muna, Musyaffi, & Siregar, 2019). The timely yet seamless transactions have induced the intention of the users to perform various transactions as it offers convenience for the users. For instance, the super-app, Grab, integrating ride-hailing, food delivery, and bill payments featured under a single application (Chew, n.d.). Thus, the convenience perception will affect the intention to use e-Wallets among consumers.

Facilitating Conditions

Table 3. Summary of Facilitating Conditions (*N* = 100)

Indicator s	Questions	Frequency	Percentage (%)
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FC 1	When did you start using e-Wallet?		
	Before the COVID-19 outbreak	36	36
	After the COVID-19 outbreak	64	64
FC 2	Do you think the usage of e-Wallet is safe in terms of security?		
	Yes	63	63
	No	7	7
	Maybe	30	30
FC 3	Did your family or friends start using e-Wallet only after the COVID-19 outbreak?		
	Yes	73	73
	No	11	11
	Maybe	16	16
FC 4	Does the outbreak of COVID-19 increase the usage of e-Wallet among consumers?		
	Yes	80	80
	No	1	1
	Maybe	19	19
FC 5	Does e-Wallet in merchants increase drastically due to the outbreak of the COVID-19 pandemic?		
	Yes	80	80
	No	1	1
	Maybe	19	90
FC 6	Do the initiatives and incentives by the Malaysian government (i.e., RM50 ePenjana) increase the usage of e-Wallet among Malaysians?		
	Yes	88	88
	No	3	3
	Maybe	9	9
FC 7	What are the contributing factors for you to use e-Wallet?		
	Cashback rewards and promotion	68	68
	Incentives from the Government of Malaysia	67	67
	Hygiene and safe	63	63
	Seamless and convenient	35	35
	Dislike to bringing cash around	33	33

As evident from Table 3, 64% of respondents has started to use an e-Wallet only after the Covid-19 outbreak. This was further supported by more than 50% of the respondents who perceived that their family and friends started using an e-Wallet and the significant increment of e-Wallet users after the pandemic (*FC 1, FC 3, FC 4*). Bank Negara Malaysia (BNM) recorded that the use of electronic money payments in Malaysia accelerated after the Covid-19 pandemic, with a transaction value of more than RM 20 billion between January and September 2020. E-wallet providers had experienced a higher adoption rate during Movement Control Order (MCO) as consumers intent a cautious and convincing alternative in the middle of the Coronavirus outspread (Yunus, 2020). It is notably in *FC 7* that one of the significant factors of the intention among the respondents to use an e-Wallet is hygiene and safety. Malaysia was in the lead compared to other nations in South-East Asia regarding the use of e-Wallets at a rate of 40%, followed by Thailand at 27%, and Singapore at 26% ("Malaysia leads e-wallet usage in South-East Asia", 2020). Daragmeh et al. (2021) noted in their research that the usage of e-Wallets facilitates social distancing, subsequently preventing the rise of COVID-19 cases. Wong & Ismail (2020) argued that the outbreak had initiated the intention among Malaysians to opt for e-Wallets as their means of payment to reduce transmission of the severe virus.

Besides that, *FC 2* suggests that 63 respondents perceived e-Wallet usage as safe in security, while 30 of them were unsure, and the remaining 7 do not feel so. While the rise of Covid-19 has sparked Malaysians to embrace a cashless payment avenue, securities issues within a mobile wallet application were circulating and were among the concerns of most users. Findings from Karim et al. (2020) and Barry & Jan (2018) underlined that security has a sensible and weighty correlation with behavioral intention to use mobile wallets.

Unveiling the primary barrier to using e-Wallets, one of the mobile wallet providers, i.e., Touch 'n Go Digital Sdn Bhd, has introduced its Money-Back Guarantee Policy. This feature focuses on protecting users of TNG eWallet by ensuring the clients' rights and accounts are highly secured through security enhancement and convenience within their application. Teh Huey Tzi, the TNG Digital Sdn Bhd chief risk officer, has noted that TNG eWallet possessed a multi-factor authentication (MFA) process. For instance, security questions or passwords and even a one-time password (OTP), which will be sent via instant message, are required by intruders if they intend to hack one's e-Wallet account (E-wallet security: What users need to know, 2019). Thus, embracing the beliefs of 63% of the respondents in *FC 2*.

On the other hand, 80% of the total respondents recognized that merchants' acceptance of e-Wallets had increased drastically due to the Covid-19 outbreak, while only 1% perceived otherwise, and the remaining 19% were unsure (*FC 5*). When one believes technical infrastructure supports the use of a particular technology, he/she would ultimately be influenced to practice them. Vipul (2016) proposed that sufficient facilitating conditions, i.e., the acceptance of mobile wallets among merchants, will increase the intention of the consumers to employ e-Wallets as their means of payment to ease their

transaction process, thus, suggesting e-Wallet providers create a more comprehensive technical infrastructure to support the behavioral intention among prospective users of e-Wallets. Ignatius Ong (CEO of TNG Digital Sdn Bhd) claimed that the number of retail outlets integrating Touch 'n Go eWallet payment is soaring since the Movement Control Order (MCO) was enforced in conjunction to curb the spread of COVID-19. Ong also anticipates the increase in acceptance within the local small and medium enterprises (SMEs) to digitize their payment methods (Birruntha, 2020).

Continuous initiatives by the Government of Malaysia played a crucial role as well in initiating the behavioral intention among consumers to use e-Wallets. Interestingly, the majority of the respondents (88%) perceived that the incentives given by the government had increased the usage of e-Wallets among Malaysian (*FC 6*). Our findings were further supported by the statement of Ong, where TNG eWallet has gained an inflated claim rate by 75% of the ePenjana incentive from the Malaysian government in the third quarter of 2020 in contrast to the same duration during the e-Tunai Rakyat program (Yunus, 2020). Qishin (2020) depicted that the three leading e-Wallet platforms in Malaysia, i.e., Touch 'n Go eWallet, GrabPay and Boost, have reported an upsurge of new users registering to redeem the hand-out by the government, along with other bonuses linked with the incentives by the e-Wallet providers, therefore indicating the connection with *FC 7*, where two main factors contributing to consumers' intention in using an e-Wallet are cashback rewards and incentives from the e-Wallet providers as well as stimulants from the Government of Malaysia.

Perceived Safety and Intention to Use

Table 4. Descriptive Statistics, Cronbach's Coefficients Alpha, and Zero-Order Correlations (*N* = 100)

Variables	Perceived Safety	Intention to Use
Perceived Safety	0.933	
Intention to Use	0.814***	0.917
<i>M</i>	4.39	4.47
<i>S.D.</i>	0.76	0.68

Note. *N* = 100; **p* < 0.05, ***p* < 0.01; *** *p* < 0.001; Diagonal entries in bold indicate Cronbach's coefficient alpha; *M* = Mean; *S.D.* = Standard Deviation.

Table 4 presents descriptive statistics, scale characteristics, and interrelationships among the variables. As can be seen, the variables tested, i.e., perceived safety (independent variable) and the intention to use (dependent variable), documented acceptable internal consistency reliability, where the coefficients alpha are 0.933 and 0.917, beyond the threshold of 0.70. Our findings also indicate that the perceived safety has a strong correlation with the intention to use e-Wallets supported by a Pearson's Correlation Coefficient of 0.814. According to Glanz, Rimer & Viswanath (2008), society tends to execute a specific measure if they perceive that the undertaking will minimize the risk of susceptibility to severe illness.

Table 5. Summary of Regression Analysis Between Perceived Safety and Intention to Use ($N = 100$)

Intention to use E-Wallets	
Variables entered	
(R^2 Change = 0.663)	
	Beta
Perceived Safety	0.814***

Note. * $p < 0.05$, ** $p < 0.01$; *** $p < 0.001$

We sampled H1 using the regression analysis. As evident in Table 5, the perceived safety was entered as an independent variable, while the intention to use was entered as the dependent variable. The R Square of 0.663 (66.30%) indicates that the dependent variable, i.e., intention to use e-Wallets, is contributed by the perceived safety (independently variable). Besides that, the test result shows $p < 0.001$, representing a statistically significant relationship between perceived safety with the intention of the Malaysians to use an e-Wallet during the Covid-19 pandemic. Furthermore, the relationship between perceived safety is positively correlated with the intention to use e-Wallets with a beta value of 0.814. Thus, H1 was supported. To sum up, perceived safety positively affects the behavioral intention to use e-Wallets. Safety reason makes people opt for e-Wallet. Findings from Daragmeh et al. (2021) concluded that the perceived vulnerability to a severe illness, i.e., the Covid-19 pandemic, carries a material impact on the intention to use mobile wallets (β 0.290, $p < 0.01$).

CONCLUSIONS

The supporting data from the previous researchers are aligned with our findings. Thus, we can conclude that convenience perceptions and facilitating conditions are among the factors of consumers' intention to use mobile wallets. Besides, the result from the Multiple Linear Regression on perceived safety depicts that $p < 0.001$, hence exhibiting the interrelation between perceived safety and intention to use is relevant. In this regard, all the factors proposed will affect the behavioral intention among the consumers in using e-Wallets in Malaysia during the Covid-19 pandemic. After examining the literature, we noticed that the majority of the latest studies focused on convenience perceptions and facilitating conditions. Few have focused on perceived safety towards the behavioral intention among consumers to use e-Wallet (H1). Nonetheless, it is crucial to consider the safety perceptions among consumers in light of the COVID-19 pandemic. Therefore, H1 has applied the Cronbach's Coefficients Alpha and Multiple Regression analysis to assess the validity, interrelation, and significance between perceived safety and intention to use e-Wallet among consumers.

Covid-19 has reframed the consumers' convenience perceptions otherwise. The societies used to perceive cash usage as highly convenient as they had been practicing the cash payment methods for centuries. However, in times of Covid-19, cash is no longer a king. The usage of cash has significantly decreased by 44%, while the use of e-Wallet has only dropped by 3% (Kristi, n.d.). Against this background, it is aligned with

our findings in *CP 5* that 73% of the respondents perceived that the usage of e-Wallet was more convenient than cash during the Covid-19 pandemic. The convenience, safety, and ease of adopting cashless payment are indeed advantages. Cash payment has high production, transportation, and storage expenses, as well as safety risks. For local merchants, a cashless payment solution has substantial advantages, including security and convenience (Kee, Nur Shaidah Juseef, Nur Nabilah Abdul Halim, Nur Nafisah Mohd Razi, & Nur Sorfina Shamsuddin, 2021). Also, this research has indirectly illustrated that Covid-19 is one of the significant facilitating conditions that induced the intention of consumers in Malaysia to use e-Wallets as their payment avenue. As evident, more than half of the respondents have only use e-Wallets after the Covid-19 outbreak (*FC 1*), noticing their family and friends started using an e-Wallet only after the Covid-19 outbreak (*FC 3*), and the increment in merchants' acceptance of the e-Wallet payment method after the spark of the virus (*FC 5*). In fact, the World Health Organization (WHO) has suggested using digital money when possible during the pandemic to flatten the curve of spread (Huang, 2020).

Finally, perceived safety among the consumers leads to consumers' intentions to practice mobile wallets as one of the transaction methods. The reliability test performed on perceived safety and intention to use documented positive internal consistency reliability with coefficients alpha of more than 0.70. Similar to past research from Dou et al. (2017) and Foroughi, Iranmanesh, & Hyun (2019), our results depict that perceived safety significantly impacted the consumers' behavioral intention to use e-Wallets. Hence, perceived safety is the crucial factor that influences the intention among the consumers to use e-Wallets. From the survey results, 61% of the respondents perceived that using e-Wallets is helpful to reduce the spread of COVID-19. Health specialists have affirmed that the Covid-19 virus can live on the face of cash and currency for approximately 2 to 4 days (Pal & Bhadada, 2020).

Albeit the incisive practical and theoretical assessment of our research, some limitations do exist. First, our existing research only limits to a sample size of 100 respondents due to time constraints. As shown in Table 1, most of our respondents were derived from the age group of 21 to 40. Hence, this outcome may not reflect the accurate picture of the age group other than 21 to 40 years old as their frequency was considerably lower. Besides that, the reliability test and Multiple Linear Progression analysis could not be performed on all the factors proposed since several questions associated with the factors were open-ended questions. On the other hand, this research focuses on the impact of Covid-19 on behavioral intentions to use e-Wallet, thus, hindering the measurement of long-term intentions in using e-Wallets among the consumers. Subsequently, a comparative study regarding the pre and post Covid-19 pandemic towards consumers' behavioral intention in using e-Wallets can be explored in future research, taking into account the time value effect.

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