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Research

The Use of e-Wallet among Gen-Y in Malaysia during the Global Pandemic: Using PLS-SEM Analysis

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Abstract

Traditionally, everyone uses the notes and coins or even credit cards and cheques for all business transactions which resulting several problems such as inconvenience, inefficiency and ineffectiveness. The limitation of traditional payment may cause the delay of payment, high risk of theft, and fraud transaction. To reduce these problems, E wallet is introduced and it helps to reduce fraud as the data stored in mobile wallet is encrypted. The owner is able to trim the limit and receive notification on any transaction. During the Global Pandemic, consumers are forced to follow the restriction of movement control. Many shops in Malaysia are closed and consumers started to buy things online aggressively. This study aims to determine the factors affecting the usage of e-wallet among the Gen-Y during the Global Pandemic using PLS-Sem analysis. Snowball sampling was used and manage to get 181 respondents via survey. This study adopted four variables, perceived ease of use, perceived usefulness, benefits to users and trust. Out of four variables, two variables which are perceived usefulness and trust are supported.

Keywords: *e-wallet, perceived ease of use, perceived usefulness, benefits, trust, Generation-Y*

INTRODUCTION

The E-wallet adoption in Malaysia has grown in Southeast Asian neighbours in the early stages of the COVID-19 era. According to Boon (2020), during the global pandemic, the number of Malaysian users of e-wallets increased dramatically. It was reported that during the pandemic season, Malaysia had the highest e-wallet usage in Southeast Asia at 40%, ahead of the Philippines (36%), Thailand (27%), and Singapore (26%). This statistic was reported in the Mastercard Impact Study 2020, and the study also indicates that approximately 40% of Malaysians use mobile and e-wallets, followed by debit cards (26%) and contactless credit cards (22%). During the global pandemic, the Malaysian government has implemented several innovative programs, such as 'E-Tunai' and 'E-Penjana', to encourage the use of e-wallets and reduce physical contact. In the 20th century, many consumers have excessively relied on smartphones for their day-to-day activities. Students, especially Generation Y, rely excessively on smartphones in their day-to-day lives and treat them as fundamental to their lives.

The rise of smartphone penetration will cause a rapid flow in e-commerce. According to a survey conducted by ACI Worldwide or IDC Financial Insights, cited in Rolfe (2016), Generation Y customers were more interested in new payment methods. This survey was conducted in 9 countries in the Asia Pacific. In Malaysia, 72% reported using emerging digital payment systems, and 82% intended to adopt them in the future (Rolfe, 2016). Additionally, Generation Y (Gen-Y) is described as "those born between the mid-1970s and the early 2000s" and is also considered the 'net generation,' who have grown up alongside the power of the Internet (Cabral, 2011). According to research by Wolburg and Pokrywczynski (2001), the population of Generation Y students was projected to reach 22 million and to have greater purchasing power than any previous generation. Therefore, the purpose of this study is to determine the factors that affect Gen-Y in using e-wallets in Malaysia during the Global Pandemic.

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LITERATURE REVIEW

COVID-19 Pandemic in Malaysia

In early March 2020, there was a sudden increase in COVID-19 cases in Malaysia, and to date, on 19th September 2020, Malaysia has reported 10'000 cases (Jin, 2020). According to Aji et al. (2020), during the covid 19 pandemic, many consumers around the world including Malaysia committed in panic buying activities and hoarding the supply. Many Malaysian consumers purchase the supplies online, and it was reported that some delivery companies in Malaysia have recorded more than a 30 percent increase in orders during the COVID-19 pandemic. Additionally, the Malaysian government has set several restrictions on the movement of people into and out of the area (Shah et al., 2020). With that, many consumers have started to use mobile apps for control movement and reduce physical contact.

The usage of e-transaction and e-wallet has increased rapidly during this pandemic to mitigate any physical visit, social distancing, and movement control order (Revathy & Balaji, 2020). Hence, e-payment has engaged a lot of attention from researchers and designers of information systems because of its significant role in the current e-commerce trend and pandemic seasons. Several researchers, such as Aji et al. (2020), Shah et al. (2020), and Abdullah et al. (2020), had studied the Malaysian global pandemic, and Aji et al. (2020) mentioned that variable such as perceived usefulness and perceived risk has significantly and positively affected the intention to use e-wallet in Malaysia. The study from Aji et al. (2020) consists of respondents from different generations, and only 26.6 percent are Gen-Y respondents. However, to further this research, this paper will consider several important variables and focus on Gen-Y, as they have high spending power and are the largest segment of the population in Malaysia. Additionally, Gen Y is the group of consumers who are actively involved in online purchases and accounted for up to USD 1.7 trillion by 2015 (Abdullah et al., 2020). Lim et al. (2015) also mentioned that Gen- Y is a cohort of people born after Gen-X. Many studies have accepted Generation Y to be those born between 1978 and 1994, and account for up to 40% of Malaysia's total population.

Perceived Ease of Use

Venkatesh et al. (2012) defined perceived ease of use as the trust when using a particular system without any needs of effort. According to past research did by it had suggested that the perceived ease of use as a measurement of cognitive exertion that expected to study as well as utilize new Information Technology (IT). Moreover, numerous studies had mentioned the system or technology which was easier to use as well as apply as a user were definitely more valuable and beneficial (Lai, 2017). It means that the user-friendly technology or framework are more favourable to the users. The Gen-Y accounts for the biggest proportion of the Malaysian population, and they are the main users of smartphones as their perceive ease to use are higher comparing to other generations (Shabrin et al., 2017). In Malaysia, perceived ease of use had a great influence on the usage of e-payment among the Malaysians to use e-payment (Guriting & Ndubisi, 2006). During the global pandemic, government has imposed several restrictions on movement. Malaysia government provides free internet usage and data plan during the movement control order and many business retails have started to initiate online transaction and door-to-door delivery. An effective e-payment based on its design and system was very significant so as to attract customers for using it (Abrazhevich, 2001). Therefore, perceived ease of use has a positive relationship with the e-payment adoption.

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H1: Perceived ease of use positively affects Gen Y to use e-wallet during the global pandemic in Malaysia

Perceived Usefulness

Davis (1989) and Lai (2017) had defined perceived usefulness as "the degree to which an individual believes that using a suitable system would improve his or her work performance." In addition, perceived usefulness was an external motivation that pushed as well as supported someone who alludes to the potential adopter becoming aware of the usage of some systems to be helpful in illuminating his or her job performance. Furthermore, customers are more likely to use the system or technology if the total enhancement on job can lead to usefulness in job efficiency as well as productivity. During COVID-19, many businesses started to go online due to several restrictions. According to the local newspaper dated 5th July (2020), the usage of e-wallet is perhaps the most trending payment system during the pandemic and has captured the hearts and minds of Malaysians. It has become the norm for many Malaysians to make purchases of essential items at home. Gen Y, who spend most of their time online, find a digital wallet very useful. According to Aji et al. (2020), perceived usefulness positively affects intention to use e-wallet. Therefore, hypothesis 2 is formed.

H2: Perceived usefulness positively affects Gen Y to use e-wallets during the global pandemic in Malaysia

Benefits

Chou et al. (2004) stated that the benefits were the fundamental drivers of the adoption and use of online payments. Many studies have identified one of the benefits of using e-payments for online transactions as low cost, and other benefits. E-wallets provide several incentives and benefits to users. For example, Malaysians can receive RM50 via e-wallets by downloading the 'MySejahtera' application. It was reported that in 2017, companies such as Boost and Touch 'n Go had a few million subscribers (Haroon, 2020). These e-wallet companies gave rebates, points, and several benefits to the subscribers and users. According to Boon (2020), there are several newly invented smart vending machines with e-wallet payment technology that are in line with the COVID-19 pandemic. When brick-and-mortar retail outlets are unable to operate during the lockdown and movement control order, the vending machine continues to operate. It appears that traction is increasing by the day, particularly among Gen Y, who are the primary active users of e-wallets. Therefore, the benefits of e-payment could directly influence customers' adoption of e-payment. Hence, H3 is formed:

H3: Benefits to the user positively affect Gen Y to use e-wallet during the global pandemic in Malaysia

Trust

Trust is defined as "a function of the degree of risk involved in financial transactions, and the outcome of trust is reduced perceived risk, leading to positive intentions toward e-payment adoption" (Yousafzai et al., 2003). Additionally, trust can be explained by the fact that e-payment transactions were completed and met customer expectations. In addition, many researchers have proposed that trust is necessary and significant for understanding interpersonal behaviour as well as economic exchanges, which influence consumers' intention to adopt an e-wallet. Sarika and

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Vasantha (2018) stated that trust is one of the main factors that affects the growth of the digital payments system, and many users are afraid of the security issues. However, in Malaysia, the e-wallet providers are heavily regulated as well as adhere to tight guidelines set by the Bank Negara Malaysia. This means that security and data preservation are always a priority for these companies. Based on the study done by Nguyen and Huynh (2018), trust played the principal role in adopting e-payment. Besides, Haroon (2020) added that for e-wallets, they cover a much greater proportion of the population than credit cards due to the trust of users. Therefore, hypothesis 4 is created.

H4: Trust of the user positively affects Gen Y to use e-wallet during the global pandemic in Malaysia

RESEARCH METHOD

Figure 1 shows that the research framework is a necessity for this research project, and it is to study the relationship between all four independent variables as well as the dependent variable. This research uses a quantitative approach and uses a survey of 181 respondents. Since this study is aiming at Gen-Y, the population is enormous. To collect data, this study employed non-probability sampling. The selected sampling method is snowball sampling via online.

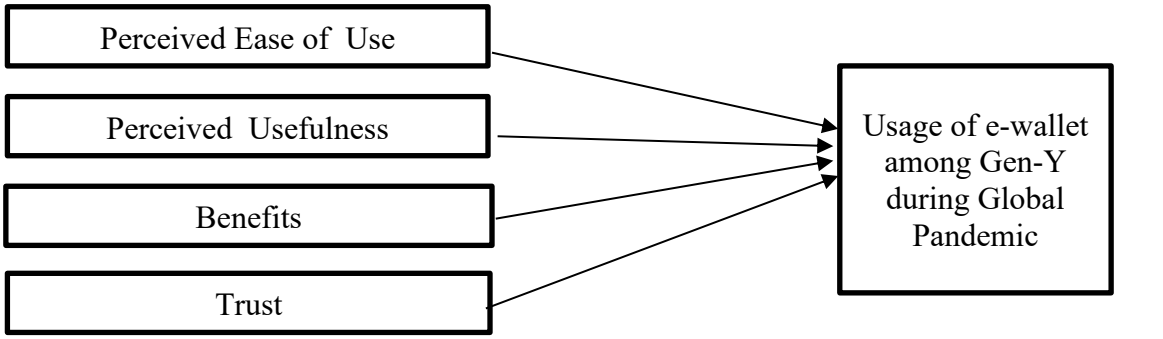

Figure 1. Research framework

Due to the restriction movement control order at this moment, questionnaires were sent through google forms via social media, Facebook page, Instagram etc but only 181 respondents replied. This research adopted snowball sampling as travelling is restricted and researchers can only send to friends and relatives that belongs to Gen-Y. There are several ways to determine the sample size and rules of thumbs for sampling size and power analysis is one of tools to determine total number of accepted samples (Memon et al., 2020). The sample size had been calculated by the G-Power software which was 129 with 4 predictors, therefore this research manages to obtain 181 respondents. The data collected from the questionnaire was analysed through SMART PLS-SEM (Partial Least Square- Structural Equation Modelling).

RESULT AND DISCUSSION

This study has successfully collected 181 set of questionnaires and the respondent's demographic profile is presented in Table 1. As mentioned earlier, Gen-Y was defined as individual that born in year 1978-1994. From Table 1, there are about 39.78% of the respondents are born in year 1988-1994, the younger Generation Y categories whereas 30.39% of the respondents are born

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in year 1978-1982. The table shows that the majority of respondents are female (43.65 percent), with 43.65 percent male. Most of the respondents are bachelor's degree holders (67.69 percent). The rest of the respondents possessed a diploma/advanced diploma (17.13 percent), Postgraduate/master's/PhD (9.94 percent), and STPM/A-Level/Foundation (3.31 percent). The least in the distribution accounted for 1.66 percent from SPM/O-level category.

Table 1. Demographic Profiles of Respondents

	Frequency	**percentage**
Year of birth		
1878-1982	55	30.39
1983-1987	54	29.83
1988-1994	72	39.78
Gender		
Male	79	43.65
Female	102	56.35
Highest Academic Qualification		
SPM/O-Level	3	1.66
STPM/A-Level/foundation	6	3.31
Diploma/Advance Diploma	31	17.13
Undergraduate/Bachelor Degree	123	67.96
Postgraduate/Master/PhD	18	9.94

Table 2. Measuring Model

Construct	**Indicator**	**Loading**	**Composite Reliability**	**Average Variance Extracted (AVE)**	**Effect size**
Benefits	BEN1	0.887	0.941	0.799	0.117
	BEN2	0.882			
	BEN3	0.906			
	BEN4	0.9			
Perceived Ease of Use	PEU1	0.884	0.909	0.77	0.144
	PEU2	0.882			
	PEU3	0.867			
Perceived Usefulness	PU1	0.828	0.903	0.699	0.377
	PU2	0.86			
	PU3	0.857			
	PU4	0.8			
Trust	T1	0.847	0.860	0.754	0.197
	T2	0.889			

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Construct	Indicator	Loading	Composite Reliability	Average Variance Extracted (AVE)	Effect size
Use of E-wallet	USE1	0.873	0.888	0.725	
	USE2	0.863			
	USE3	0.818			

Table 2 presents the overall assessment of the measurement model for this study. All constructs are reflective measurements in this study, and the loading factors for all indicators are above 0.708. The composite reliability for all constructs had met the minimum threshold of 0.7, whereas the Average Variance Extracted (AVE) is also greater than 0.5 (Hair Jr et al., 2014).

In conclusion, all constructs met the requirements for reliability and convergent validity. The effect size (f^2) is small for Benefits (0.117), Perceived Ease of Use (0.144), and Trust (0.197). Perceived usefulness has a medium effect size (0.377) based on Cohen's guidelines (Cohen, 1988). The R^2 value was 0.54.5, which suggested that 54.5 % of the variance in Gen-Y usage of e-wallet may be explained by perceived ease of use (PEU), perceived usefulness (PU), benefits for the user (BEN), and trust (T).

Table 3. Discriminant Validity of Constructs

	Benefits	Perceived Ease of Use	Perceived Usefulness	Trust	Usage of E-wallet
Benefits	**0.904**				
Perceived Ease of Use	0.524	**0.748**			
Perceived Usefulness	0.757	0.647	**0.846**		
Trust	0.761	0.67	0.712	**0.894**	
Usage of E-wallet	0.673	0.568	0.668	0.685	**0.851**

Note: Diagonal (in bold) represents the √AVE, while others represent correlation

Table 4. Path coefficient and Hypothesis Testing

	Coef	T-Value	Sig	Hypothesis
H3:Benefits -> Usage of E-wallet	0.118	0.752	0.452	Not Support
H1: Perceived Ease of Use -> Usage of E-wallet	0.15	1.218	0.224	Not Support
H2: Perceived Usefulness -> Usage of E-wallet	0.376	3.016	0.003	Support
H4: Trust -> Usage of E-wallet	0.193	2.446	0.015	Support

Perceived ease of use has a t-value of 1.218 ($p > 0.05$), indicating that perceived ease of use does not significantly affect Gen-Y's use of e-wallets. Hence, hypothesis 1 is not supported. Interestingly, the findings are inconsistent with prior research by Abrazhevich (2001). The reason that perceived ease of use is not supported is mainly due to the fact that respondents are Gen-Y, known as the techno-savvy generation. This generation was born with the internet and has learned to adopt technology quickly. Additionally, during the COVID-19 pandemic, most business

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transactions, government services, and even education have shifted online. Besides, most of the respondents are all undergraduates and working adults who can be considered highly technologically literate. Therefore, this could be the main reason H1 is not supported.

Additionally, for H3, Benefits to the user positively affect Gen Y's use of e-wallets during the global pandemic in Malaysia, which is not supported, with a t-value of 0.752 ($p>0.05$). Initially, many e-wallets started giving several benefits to new users, such as points, rebates, gifts, and instant cashback. However, if a user tops up a certain amount of money in the e-wallet, with or without benefits, they will need to use up the credit. It acts like a normal wallet but in a form of digital. Besides, during the global pandemic, the respondents did not consider benefits as the main factors of using e-wallets. Add on, according to Subaramaniam et al. (2020), e-wallets are not fully available in every place, and different retailers accept different kinds of payment, such as Boost, Touch N Go, WeChat Pay, GrabPay, and more. Therefore, Gen-Y will consider downloading most of the e-wallets without looking much into the benefits, especially during the COVID-19 pandemic. This could be the reason why H3 is not supported.

CONCLUSION

This research aims to determine the factors that affecting Gen-Y in using e-wallet in Malaysia during Global Pandemic. As a nut shell, this research has narrowed the knowledge gaps of previous study in terms of examining the four factors in a one setting and focus on Gen-Y as the respondents. Moreover, this research has advanced the mainstream literature regarding usage of e-wallet during Covid-19. The findings ensure the salience of all the four factors that being investigated, two hypotheses are supported for Gen-Y respondents, permitting managerial implications from different perspectives of strategies to suggest in order to boost the use of e-wallet.

According to the findings in this research, perceived usefulness and trust appear to be important factors that will influence the Gen-Y to use e-wallet, thereby warrant more attention from the online transaction facility providers, banks as well as software developers. It means that any improvement to the existing e-payment system must consider these characteristics which are conveniently useful and trustworthy. For instead, software developers must collaborate with the strategy team to figure out what are the core as well as additional features like Grab with GrabGift, GrabMart, GrabMaid and others. On the other hand, the findings on trust imply that customers need to feel low risk and safety regarding their privacy when they using e-payment system. Thus, all the policy makers, banks, software developers and e-payment service providers have significant role to ensure the security as well as trustworthiness of e-payment system in order to boost the confidence of customer and strengthen their trust. E-payment service providers and banks must make sure their system is always secure from virus, hacker and so on. Besides, government can also play a role to keep on retaining stability as well as financial regulating through regulating e-payment services so that the customers are being protected.

There are several opinions as well as suggestions to be proposed for the future research in the similar area of study in order to solve the limitation that mentioned. First of all, researchers should enlarge the overall sample size of the research, normally to 300 respondents and above. If the total sample size of research has increases and expanded, thereby it will result the enhancement of testing the hypotheses specifically as well as accurately. Future study also can consider to utilize more others analytical instruments like qualitative approach to be implemented in exhaustive finding. For example, qualitative method can be used in order to gather more updated as well as

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precise than accurate results as the individual's intention towards e-payment adoption can change from time to time because of the advancement in technologies.

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