

Factors Influencing the Intention to Use E-Wallet by using Theory of Reasoned Action (TRA) & Technology Acceptance Model (TAM): Evidence from Consumer in Malaysia

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Abstract

E-Wallet is an essential part of E-payment and even more crucial in day-to-day use by all generations. The pattern of customer purchase behavior has changed in the age of technology. The consumer has changed to cashless buying behavior because of numerous fintech solutions, like online payment. Since they were raised in the smartphone era, Gen-X consumers in the twenty-first century have had a more positive attitude toward technological devices. This study was conducted to examine the factors influencing the intention to use e-wallet amongst gen-x in Malaysia. The factors influencing the intention to use an e-wallet on gen-x were determined using the Theory of Reasoned Action (TRA) and Technology Acceptance Model (TAM). This study would allow all stakeholders to understand the factors that may influence the Gen-X born between 1965 and 1980 to use an e-wallet. The intention to use an e-wallet could be affected by personal innovativeness, perceived security, usefulness, and social influences — this research study utilized a deductive approach with quantitative methods of survey questionnaires. A total of 394 valid respondents were collected through a Google form, which was circulated to friends and family to test respondents' responses towards the said factor that could influence their intention to use an e-wallet. Collected data were analyzed using SPSS software, and multiple regression analyses were used to test the causal relationship between the dependent and independent variables in this study.

Keywords: E-wallet, Gen-X, TRA, TAM.

Introduction

As a result of financial technology advancement, there has been a significant increase in cashless payment usage in recent times. Consumers are moving away from using cash toward

cashless transactions due to the rise of technology products like e-wallets. The term "e-wallet" refers to a digital wallet that generally facilitates online payment transactions. Recent days have seen a sharp rise in the use of widely available e-wallets. This is because utilizing an e-wallet might have its advantages such as time effectiveness. People desire convenience, and businesses respond by developing innovations that aid in the acceleration of task completion. According to Alswaigh and Aloud (2021) people have gone a long way since the days of barter trading and the invention of playing cards. It is possible to perform mobile transactions through e-wallets and other payment processing facilities in the current technological age. It has gained widespread adoption because it eliminates the need for users to carry a physical wallet, credit card, or physical currency.

Despite of benefits, there are negative impacts when using e-wallets. The increasing of cybercrimes involving identity theft, embezzlement, and money theft raised concern among individuals regarding the use of e-wallets. The income level, gender, and age group of users need to be addressed to understand the impact of e-wallets. Consumer preferences while using e-wallets need to be reviewed to understand the impact on its users. It has been found that users in Malaysia mostly use e-wallets while buying groceries, food, and beverages (Sticpay.com, 2021). The recent COVID-19 situation has raised awareness among consumers regarding social distancing and e-wallet systems helped users to maintain social distancing while purchasing transactions. E-wallet systems have enhanced the shopping experiences of customers by providing them with cashless experiences. As stated by Kasirye and Masum (2021), older people generally have technological anxiety as they are comfortable with the traditional method. However, previous studies have indicated that there is an increase usage of e-wallets among the Gen-X. Therefore, this study focuses on the factors influencing the intention to use e-wallet among Gen-X in Malaysia.

Objectives of the Study

The purpose of the study is to determine the impact of personal innovativeness, perceived security, perceived usefulness, and social influence, on customer intent among consumers who utilize mobile phones for E-Wallets in Malaysia. The following are the objectives of the study as we progress to the fourth research question by examining the four components of factors that influence customers' acceptance of e-wallets.

- 2.1. To examine the relationship between personal innovativeness and intention to use e-wallets among Gen-X in Malaysia.
- 2.2. To examine the relationship between perceived security and intention to use e-wallets among Gen-X in Malaysia.
- 2.3. To examine the relationship between perceived usefulness and intention to use e-wallets among Gen-X in Malaysia.
- 2.4. To examine the relationship between social influence and intention to use e-wallets among Gen-X in Malaysia.

Literature Review

Personal Innovativeness

According to Chauhan and Shingari (2017) have indicated the higher an individual's innovativeness, the greater the potential for technology acceptance. The growing trends of smartphones and their presence all over the world have increased the use of e-commerce.

Thus, it has led the entire world and the population to the emergence tool of e-wallet. The usage barriers based on the generation define the usability of innovation that significantly leads to such technological payment methods. As per the view of Cheng et al. (2018), the prominent component of the innovation is the user barrier, and it negatively impacts the adaptation of e-commerce among the Gen-X of Malaysia.

Thus, it impacts the value of the intention in the aspect of the adaptation of the subject. In this aspect, it merely found that PayPal is an e-commerce payment application mostly used by the Gen-X of Malaysia (Karim et al., 2021). It is comparable to Gen-Z in that they have a larger proclivity for utilizing innovative technologies. The primary explanation could be that the younger generation is highly adaptable to their circumstances. Thus, it is critical to analyze Gen-X behavior to ascertain their purpose for use and their reaction to new technology.

Perceived security

Users are very much concerned with the privacy of their bank accounts, leading to making them more afraid of adopting any new technologies for online transactions. As indicated by Chan et al. (2020), perceived security can be considered as one of the most important variables for the user's intention to use mobile technology. In this context, it is required to make people aware of the security of e-Wallet as the encryption of all the details for security.

Perceived Usefulness

In combining the studies of various studies, have indicated that perceived usefulness has a significant impact on the intention to use an E-wallet. Previous findings verified that in India, perceived usefulness has statistically significant impacts on FinTech payment services during the COVID-19 pandemic (Singh & Sharma, 2022). As supported by Chen et al (2019) the overall perceived usefulness of mobile translation can make people interested in adopting this service. The usefulness of new technology service concepts can play an important role in attracting users towards it, especially in the case of technological advancements. As indicated by Nag and Gilitwala (2019), it has been obvious that transactions through an e-wallet are easy as well as desirable way as they require less time to make any payment. A research article by Chen et al (2019) supported the fact that the overall perceived usefulness of mobile translation can make people interested in adopting the service offered. However, in the case of older people or Generation X (41–56), they are mainly comfortable with the traditional payment process making the process of making them intend to use new technology difficult in Malaysia. Tenk et al (2020) indicated that expectation fulfillment has a strong relationship with making older people intend to adopt new technologies.

Therefore, it can be said that people between the ages of 41 to 56 can use e-wallets more in Malaysia by fulfilling their expectations. A user's propensity to utilize an application and believe that it will help them perform their work more effectively is known as perceived usefulness (Indarsin & Ali, 2017). Perceived usefulness, according to Davis (1989), is the extent to which the usage of technologies will enhance the user's ability to accomplish their job. The concept of perceived usefulness is the individual's conviction that using a certain system will improve his job performance and give him access to fresh features that secure and enable performance (Malik & Annuar, 2019). How well customers believe a product may be incorporated into their daily routine and increase their efficiency, such as being more productive and organized, can be used to measure perceived usefulness (Deghani, 2018). It was discovered that a person's intents and attitudes toward using a system or activity are

significantly influenced by their perception of the utility of it (Raza et al., 2017). According to studies by Indarsin & Ali (2017); Raza et al (2017); Ifinedo (2018), attitudes are positively and significantly impacted by perceived usefulness. According to research by Arfat et al (2018) and Routray et al (2019), perceived usefulness has a favorable and considerable impact on system usage.

Social Influence

Chinnasami (2022) defines social influence as the influence that the social context has on a consumer's intention to use a connected system, whether that be a family member, leader, coworker, or friend. In other words, it's the change in an individual's behavior, whether it's due to close contact or not. Singh (2020) found that users' intentions will be affected by other people's thoughts, beliefs and opinions. Yeow (2017) defined social effect as "the context in which a person decides to accept or refuse a technology," especially at the beginning of development. The assumption that people are more likely to believe the opinions of others, particularly those they are close to and have a strong relationship with, will also affect a user's adoption of technology. E-Wallet benefits from social influence when people participate in technological innovations (Hashimz, 2018).

Based on the above-mentioned discussion, the following is the proposed research framework for this study. The conceptual framework illustrates the relationships between the components of three main factors, namely (1) Personal Innovativeness, (2) Perceived Security, (3) Perceived Usefulness, and (4) Social Influence.

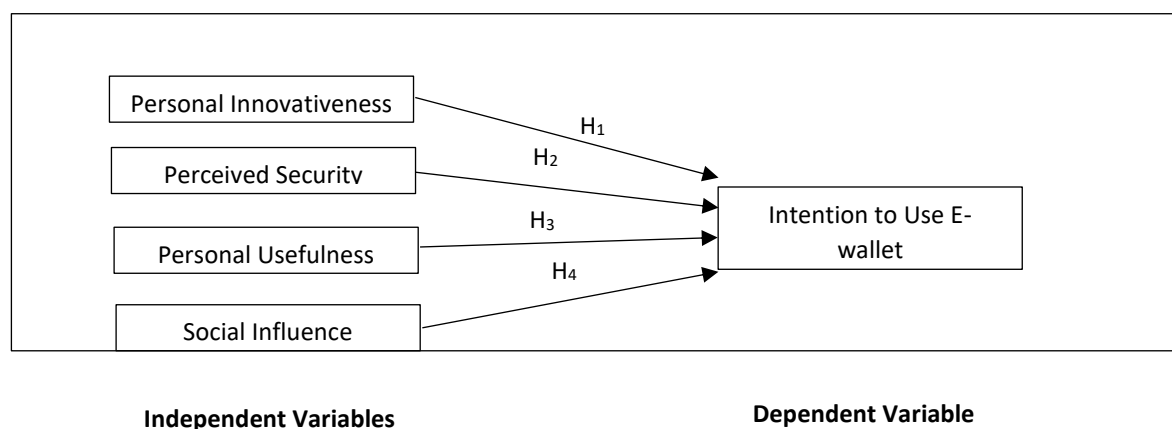


Figure 1: Proposed Research Framework

The hypothesis is an assumption made in the study and may differ from actual results after data collection and analysis. They are:

H₁: Personal Innovativeness (PI) has a significant influence on the intention to use e-wallets among Gen-X in Malaysia.

H₂: Perceived Security (PS) has a significant influence on the intention to use e-wallets among Gen-X in Malaysia.

H₃: Personal Usefulness (PU) has a significant influence on the intention to use e-wallets among Gen-X in Malaysia.

H₄: Social Influence (SI) has a significant influence on the intention to use e-wallets among Gen-X in Malaysia.

Underpinned Theory

Technology Acceptance Model (TAM)

Existing models have been applied to examine the individual's potential to adopt new technologies. The Technology Acceptance Model (TAM), which Davies first developed in 1986 is at the foundation of several research looking at the adoption of E-wallets. The model was first intended to forecast user acceptance of and usage of information technology in an organizational setting. The Technology Acceptance Model (TAM), which focuses on the attitude justifications of intention to use a certain technology or service, is now a frequently used model for user acceptance and usage. Numerous meta-analyses on the TAM have shown that it is a reliable, strong, and effective model for forecasting user acceptance. Some researchers in this regard use the TAM to assess the intention of older people to adopt e-wallet services in Malaysia. This study used the theory of TAM to study the intention to use E-wallet among Gen-X in Malaysia.

Methodology

A quantitative research approach is used to examine the relationship between variables using statistical analyses. Structured questionnaires are distributed online among the targeted population, Gen-X in Malaysia, between the ages of 41 to 56 using Google Forms. The degree to which respondents agree or disagree with a certain topic or statement was measured using a Likert Scale. Each question is followed by five answers ranging from [1] Strongly Disagree to [5] Strongly Agree that signify their agreement or disagreement. The Pearson Correlation Coefficient is used to determine the relationship among the variables. The reliability test is used in this study for measuring the stability, consistency, dependability, and accuracy of the variables, and also helps to reduce the error in each variable to ensure a consistent result can be obtained. According to Malhotra (2010), the values of Cronbach Alpha which are below 0.6 are perceived as poor, while the alpha value ranges from 0.6 to 0.8 and are perceived as moderately strong, if the value more than 0.8 is considered as very strong. The hypothesis was measured using the Statistical Package for the Social Sciences (SPSS).

Analysis and Findings

The alpha scores of reliabilities reported in Table 1, indicate a good conformity of items to each dimension. The highest Cronbach's value of variables is Intention to Use which is recorded at 0.967, the second highest value is 0.965, contributed from the Perceived Usefulness. Next is Social Influence which is recorded at 0.939 and Perceived Security is recorded at 0.914. Meanwhile, Personal Innovativeness is recorded at 0.866. In conclusion, all the variables indicate strong and good reliability scoring results and attempt to reach a moderate degree of reliability.

Table 1
Cronbach's alpha coefficient of the dimensions

Variables	No. of items	Cronbach's alpha	Dimensions
Dependent Variable			
Intention to Use E-wallet	4	0.967	Very Strong
Independent Variables			
Personal Innovativeness	4	0.866	Very Strong
Perceived Security	5	0.914	Very Strong
Perceived Usefulness	4	0.965	Very Strong
Social Influence	4	0.939	Very Strong

Table 2 displays the correlation analysis results along with the values of r. It is possible to infer from the data below that the correlation results fall between 0.559 and 0.898. This demonstrates the strong and positive correlation between the dependent variable (intention to use) and the independent factors (perceived usefulness, perceived security, and social influence). The correlation coefficient (0.731) between Personal Innovativeness and Intention to Use indicates a strong association between the two factors. A strong association between the variables is indicated by the 0.754 correlation between the variables measuring perceived security and those measuring intention to use. The variables with the highest correlation values are those related to perceived usefulness and intention to use (0.898), whereas social influence and intention to use had the lowest correlation (0.841).

Table 2
Pearson's Correlation Analysis Results

		Personal Innovativeness	Perceived Security	Perceived Usefulness	Social Influence	Intention to use E-wallet
personal Innovativeness	Pearson Correlation	1	0.559**	0.701**	0.756**	0.731**
	Sig. (2-tailed)		0.000		0.000	0.000
	N	394	394	0.000	394	394
Perceived Security	Pearson Correlation	0.559**	1	0.787**	0.616**	0.754
	Sig. (2-tailed)	0.000		0.000	0.000	
	N	394	394	394	394	394
Perceived Usefulness	Pearson Correlation	0.701**	0.787**	1	0.800**	0.898**
	Sig. (2-tailed)	0.000	0.000		0.000	0.000
	N	394	394	394	394	394
Social Influence	Pearson Correlation	0.756**	0.616**	0.800**	1**	0.841**
	Sig. (2-tailed)	0.000	0.000	0.000		0.000
	N	394	394	394	394	394
Intention to use E-Wallet	Pearson Correlation	0.731**	0.754**	0.898**	0.841**	1**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	
	N	394	394	394	394	394

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

Table 3

Summary of Correlation Analysis Results

Hypothesis	Multiple Linear Regression	
	Result (sig)	Remarks
H1: There is a relationship between Personal Innovativeness and a customer's intention to use an e-wallet.	0.07	Significant
H2: There is a relationship between Perceived Security and the customer's intention to use e-wallet.	0.00	Significant
H3: There is a relationship between Perceived Usefulness, it has a positive effect on the customer's intention to use e-wallet.	0.00	Significant
H4: There is a relationship between Social Influence, has a positive effect on the customer's intention to use an e-wallet	0.00	Significant

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.207	.101		-2.058	.040
1 PersonalInnovativeness	.102	.038	.082	2.712	.007
PerceivedSecurity	.128	.030	.134	4.319	.000
PerceivedUsefulness	.506	.042	.493	11.928	.000
SocialInfluence	.324	.038	.302	8.412	.000

a. Dependent Variable: IntentionToUse

The factors influencing Malaysians' intentions to use e-wallets are the study's main finding. The results show that each of the four variables significantly affects the likelihood that Gen-X individuals in Malaysia will use an e-wallet. The findings are consistent with Singh and Sharma (2022) who discovered that users' intentions to use e-wallets are significantly influenced by their perception of the product's usefulness.

Conclusion

In conclusion, there is a substantial correlation between the intention to use an e-wallet among Gen-X in Malaysia and the independent factors in this study like Perceived Usefulness, Social Influences, Perceived Security, and Personal Innovativeness. Businesses and mobile payment providers can benefit from the study's conclusions in terms of organizational and marketing strategy. The significance of the research is related to the conclusion, which states that the independent variable affects the dependent variable. The brands associated with mobile payments need to be extremely successfully maintained within an environment of rivals that must cooperate. An established ecosystem gains a new player with the introduction of mobile payments, such as a mobile operator. Associations and networks ought to be attempting to balance conflicting interests and figuring out how to operate together.

Contributions

The theoretical contribution of the integration of TRA and TAM by combining two well-known theories, TRA and TAM. TRA is based on the idea that an individual's behavioral intention is determined by their attitude towards behavior and subjective norms. TAM focuses on the usefulness and ease of use of the technology in determining the acceptance of the technology. Combining these two theories gives a better understanding of the factors that influence the adoption of e-wallets. By integrating TRA and TAM, the researchers can extend existing knowledge about technology adoption theories. Applying these frameworks to the e-wallet adoption context in Malaysia improves the theoretical foundation for consumer behavior in digital payment. The study provides empirical evidence about the factors that influence consumers' intentions to use an e-wallet. By collecting and analysing data, the researchers validate or refine the theoretical frameworks. Moreover, in contextual contributions perspective, this research focuses on Malaysia, a country that has seen a rapid increase in digital payment adoption. By focusing on this country, the research provides insights that are relevant to policy makers, businesses, and consumers in Malaysia. E-wallet adoption is affected by a variety of contextual factors, including cultural norms, the regulatory environment, technological infrastructure, and more. By looking at the intention to use an e-wallet among Malaysian consumers, this research provides insight into the unique factors that shape consumer behavior in this context. The findings of this study can be used to inform targeted marketing campaigns, improve user experience, and formulate policies to support digital payment adoption in Malaysia.

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