

# Factors Enhancing Young Consumers Satisfaction of Mobile Wallet Services in Malaysia

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## Abstract:

As the adoption of cashless transactions continues to grow, the mobile wallet has become prevalent in human daily life because it serves as an alternative payment option to replace the traditional payment method. Therefore, young consumers prefer to use mobile wallet to make transactions instead of carrying around so much of cash and heavy coins to make payments for their purchases. Currently, there are many mobile wallet choices in Malaysia market, however, mobile wallet has not grown as fast as expected since mobile wallet is not widely adopted by consumers to make payment due to their concern on satisfaction. Hence, this study aims to investigate the relationships between perceived ease of use, usefulness, trust, security and young customers' satisfaction of mobile wallet. A total of 200 samples were collected from undergraduate students in Azman Hashim International Business School at Universiti Teknologi Malaysia (UTM) by using quantitative method. Purposive sampling technique was used to select respondents who had used mobile wallet for payment. Statistical Package for the Social Sciences (SPSS) was used for data analysis. The findings showed that perceived ease of use and security have a positive and significant relationship with young customer satisfaction of mobile wallet. In contrast, there are two hypotheses which are usefulness and trust are not significantly related to young customer satisfaction of mobile wallet. In conclusion, the finding of this study is expected to inspire Malaysia's mobile wallet service providers to recognize specific key factors that are vital to influencing young customers' satisfaction with mobile wallet.

**Keywords:** Mobile Wallet, Customer Satisfaction, Malaysia.

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## I. INTRODUCTION

Nowadays, customers prefer to adopt their smartphones to make electronic transactions instead of carrying around so much of cash and heavy coins to make payment for their purchases [1]. Since mobile devices can play a role as a physical wallet, function as "Mobile Wallet" or is generally known as "E- Wallet" or "Digital Wallet [2], [3]. Thus far, mobile wallet is a speed-growing method for payment that serves as a second payment option to replace the old payment method [4], [5]. The continuous growth

and improvement in mobile commerce has found new businesses opportunities through various app-based mobile wallet services [6]. Thus, mobile wallet players are gaining more users as mobile wallets spell lighter pockets for some, and merchants could use this method for accepting payment [7]. In addition, after consumers make transaction via mobile phones using Internet connection, they also can store bills, vouchers, receipts, and history transactions, etc. in their mobile wallet [8].

In Malaysia, many different types of mobile wallets are found including Boost App, WeChat Pay, Razer

Pay, GrabPay and many more. The leading mobile wallet service provider is Boost App [9]. In early of 2019, there are more than 60,000 merchant touch points via offline and online in Malaysia with over 3.5 million Boost users. The touch points cover online shopping, night market, food trucks, food and beverage and many more for consumers to pay payment using their Boost mobile wallets and make their overall experience easier, faster and more secured. Now, the growth of digital payments has largely been supported by young consumers. Particularly, millennial prefer to reserve, shop and pay services and products online. [10] revealed that mobile wallet service providers are primarily leveraging on the youth segment due to young users are technology-savvy with high usage of smartphone. Therefore, the usage mobile wallet of young users is higher than other age groups. Hence, when mobile wallet service providers try to target different age groups of consumers within their potential market, it is essential to determine and explore the factors of consumers' satisfaction of mobile wallet [11]. It is significant for service providers of mobile wallet to identify which factor that is customers' most concerned about, so that every customer can enjoy a satisfying mobile payment experience. As such, this study targets to examine four factors including perceived ease of use, usefulness, trust and security that could drive young customers' satisfaction of mobile wallet.

Recently, there are more than 20 mobile wallets currently available in Malaysia [12]. Each of them with their own perks and benefits. There are both big and small players in mobile wallet game including Boost, WeChat Pay, GrabPay, Touch n Go E-wallet, Shopee Pay, Samsung Pay, vcash, BigPay, Lazada wallet and many more. However, mobile wallet is not widely adopted by consumers to make payment due to questions marks on prompting their satisfaction and it has made the mobile wallet is not as fast as expected. According to [13], there are some obstacles and consumers' dissatisfaction of mobile wallet. As such, it is important to examine which determinants could increase the young customers' satisfaction of mobile wallet in Malaysia.

Besides, there are limited studies about customer satisfaction of mobile payment. Studies such as [14], [15] found that most the mobile wallet service

providers pay more attention in increasing number of new users of mobile wallet and less focus on those loyal users to their mobile wallet services. Also, [16], [17] studied the factors that trigger the system usage of mobile payment but not for customer satisfaction of mobile payment. This study is motivated to close the gap by examining the drivers such as perceived ease of use, trust, security and usefulness to increase young customers' satisfaction of mobile wallets.

## II. LITERATURE REVIEW

### A. Customer Satisfaction

According to [18] and [19], consumer satisfaction has become a main concern for a successful company. Whereas, to enhance market success and competitive advantage, loyalty and satisfaction are the essential factors [20]. [21] found that consumer satisfaction is a measure of how a firm's products or services perform and fulfil consumer's needs and requirements. In others word, satisfaction is how consumers perceive a company's performances. As highlighted by [22], when a product's perceived performance or the requirements of the product meets a buyer's desires, consumer satisfaction is achieved. According to [23]–[25], digital payment has permeated throughout human's lives, simultaneously, mobile payments provide platforms to allow consumer to manage their finances for payment and money transfer at anywhere and at any time. In addition, [26] stated that young consumers prefer and are more satisfied to use mobile payments than personal computer based online payments because mobile payment process is simpler, much faster and easy to manipulate for online payment. As a conclusion, enhanced consumer satisfaction of mobile wallet is crucial for marketers because it may lead to consumers' loyalty and repurchase intention, as well as, word-of-mouth [27].

### B. Perceived Ease of Use

According to [28], [29], perceived ease of use can be explained as how a user trusts and accepts that a system is easy to learn and use. According to [30], perceived ease of use is a crucial driver that influences users' goal to adopt a system. A mobile wallet is a type of new innovation product that can attract those tech-savvy people as financial tools especially

millennial since they prefer to book and pay for their services and products online. As [31] indicated that mobile wallets are technology-friendly and users can easily understand and manipulate, hence, mobile wallet draws attention of young consumers to use it as their financial tools. Consumers perceived ease of use for electronic payment due to its easiness to get things done such as performing payments, fares and ticketing electronically as well as fees [32], [33]. Last but not least, the study of [28] confirms that ease of use factor has a major impact on customers' intentions to perform mobile banking as customers focus on interfaces that provide simplicity and easy-to-use when performing any banking activities.

Perceived ease of use is found to be an essential factor that affects customer satisfaction for new technologies [34]. The perceived ease of use has an influence on customers' satisfaction of mobile wallet [35]. In mobile payment applications, customers would use the mobile payment system if it is easy, understandable and effortless for them to use if compared to their existing payment methods including cash, debit and credit card, otherwise they may not feel worth to adopt and satisfied with the new payment system [36]. According to [37], mobile wallet which is perceived ease of use is significant to provide value and shape customer satisfaction. Based on the above argument, it is hypothesised that:

H1: There is a positive and significant relationship between perceived ease of use and young customer satisfaction of mobile wallet.

### C. Usefulness

According to [17], [33], usefulness affects behavioral intentions of using a system and attitudes toward the system. The degree of usefulness is the level of individuals perceive the usage of an information technology system to enhance their job performance [38] and productivity [39]. Applying perceived usefulness to the context of e-commerce paid through mobile payment system, usefulness is defined as consumers believe that the usefulness of mobile payment has improved their performances and productivity through shopping experience [40]. For experienced mobile payment users who are busy with work, the accessibility and speed of shopping or transaction are the useful features [25]. According to

[41], young generations perceived usefulness of mobile wallet services to increase their satisfaction and repurchase. Thus, consumers prefer shopping, recharge, fund transfer and other payment activities using mobile wallets due to economical, time saving and lifestyle compatibility [42].

[43] found that useful is the pre-requisite for consumers to acknowledge their wants and desires. The usefulness forms a comparison level for determining satisfaction. In a similar vein, the practicality of mobile payment system is the important prior conditions for enhanced customer satisfaction and pre-use intentions [44]. For example, if young consumers feel that a new technology system will be useful to them then they will develop a positive attitude towards mobile payment system [45]. According to [46], customers' satisfaction of mobile wallet is critical to make their lives easier. Hence, users' satisfaction of mobile wallet can be affected by clear understanding of using the mobile payment system [47]. As such, the below hypothesis is proposed:

H2: There is a positive and significant relationship between usefulness and young customer satisfaction of mobile wallet.

### D. Trust

According to [48], trust is the extent where the consumers believe that the mobile payment system could function reliably, securely and dependably. People need to trust in each other to verify any created monetary or financial system [49]. Payment methods are getting advanced, changed from paper-form to digital-form with establishment of consumer trust for increased business success [50]. [51] mentioned that when customers experience proactive customer service in-app during mobile payment transaction then they may increase their satisfaction of mobile wallet. According to [52], young adults are potential adopters of mobile wallet and they are more interested to use it than senior age groups. In particular, young adults believe that e-commerce or online shopping is much more easy, secure and faster than outdated forms of commerce [53]. So, for those consumers who have no time to perform physical shopping or make payment through counter, mobile wallet acts as a platform for them to

do online shopping and other purposes.

[54] found that trust is a vital element of customer satisfaction of mobile wallet and has a positive effect on any innovative payment method. [55] indicated that consumers perceived trust of mobile wallet because it can protect customers' information as it can have direct impact on consumers' satisfaction. As [56] mentioned, the powerful factor that affects consumers satisfaction of mobile wallet to make payments is "trust" since some of the consumers may feel unsafe because they do not have authority on their transactions which means that their privacy and financial status might be at risk. In addition, when customers are satisfied with mobile services for paying bills and utilities, e-commerce, top-up, etc through mobile wallet, they are more willing to use it as their financial tools. This means the trust could transform to loyalty for mobile wallet [57]. Based on the above discussion, it is formulated that:

H3: There is a positive and significant relationship between trust and young customer satisfaction of mobile wallet.

#### E. Security

[58] highlighted that among of all ages of mobile wallet users, young users (generation Y and millennial) are the first users on mobile payments because they were born in a digital world. However, security associated with paying on a mobile device is one of the concerning issues by consumers [59]. Safety is always seen as a crucial part that influences different parties involved in financial or business transactions [60]. Besides, [61] highlighted that security is used to protect sensitive data, consumer information and information technology assets against internal and external virus as well as accidental threats. According to [62], feature with strong security does raise the satisfied level of customers. Meanwhile, through technologically advanced security techniques and policies, mobile wallet service provider strives hard to develop and maintain safer and effective mobile payment process for users [63]. Hence, to conclude that, satisfaction of mobile payment is high because digital wallets use data encryption, monitoring and authentication to protect personal information [64].

According to [13], security concerns are the

protection level and tendency of fraud to prevent fraudulent activities. According to [57], perceived security is about feelings of certainty among consumers to use a novel technology that may lead to consumers' satisfaction. Perceived security of mobile payment services can affect individuals' satisfaction as the services involve high-level of security when consumers make the transactions. As found by [65], consumers will be motivated to use digital wallet as their financial tools due to greater security. Mobile payments allow safer transactions when there are advanced technologies such as encryption, NFC and GPS to decrease the possibility of theft [66]. Therefore, consumers feel safe and satisfied to make transaction by using mobile wallet because their sensitive data such as personal information and card number are stored in a secure database [67]. Thus, a hypothesis is developed as below:

H4: There is a positive and significant relationship between security and young customer satisfaction of mobile wallet.

### III. RESEARCH FRAMEWORK

Figure 1 is the research framework that describes the linkages between perceived ease of use, usefulness, trust, security and young customer satisfaction of mobile wallet.

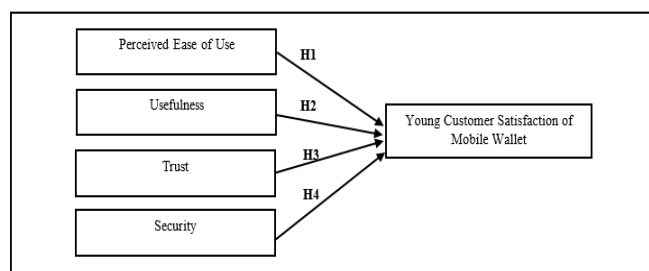


Figure 1: Research Framework

### IV. RESEARCH METHODOLOGY

According to [68], target population is about the entire group of individual where researchers want their research results to apply while sampling refers to the procedure of selecting a particular and small group from a population that can represent the entire group of a study [69]. This study targeted the respondents who are young users of mobile wallet in Azman Hashim International Business School



(AHIBS), Universiti Teknologi Malaysia (UTM). This study adopted a non-probability sampling technique: judgmental or purposive sampling technique to collect the data for more accurate results. This means that the respondents were chosen purposely based on criteria that students were experienced to make payment or transaction through mobile wallet. As [70] indicated that 200 respondents are the fair number for sample size. Hence, the sample size for this study is 200. In this study, questionnaires were distributed through manual based method and online using Google form in order to escalate the rate of response.

In term of classifying the research method, primary data can be collected in qualitative and quantitative way. Quantitative research method was adopted and used in this study for collecting a large number of samples [71]. The questionnaire contained 31 questions which is divided into two portions including Section A: the demographic profile, and Section B: independent variables (factors drive customer satisfaction of mobile wallet) and dependent variable (customer satisfaction of mobile wallet). For Section A, it consists of four questions in the demographic part using nominal scale and ordinal scale. This section includes gender, year of study, frequency to use mobile wallet and preferred transaction using mobile wallet. For Section B, there are 27 questions in the questionnaire using 5-point Likert-scale ranges from value 1 (strongly disagree) to value 5 (strongly agree).

## V. DATA ANALYSIS

### A. Profiles of Respondents

In this study, both male and female respondents had a same percentage which is 50% respectively. In term of year of study, the 4th year respondents yielded the highest ratio of 26% among other years of study. Besides, most of the respondents (35%) used the mobile wallet with several times in a month. Lastly, among the eight options that respondents prefer to adopt mobile wallets for transactions, the transfer of funds is the highest or most favoured transaction, accounting for 28%, followed by online shopping, accounting for 19.5%.

### B. Normality Test

According to [72], normality test is used to

determine the normally distributed of a data set. Meanwhile, in order to obtain acceptable results in normality test, the Skewness and Kurtosis value must range between -2 and +2. The Skewness and Kurtosis values for perceived ease of use, usefulness, trust, security and young customer satisfaction of mobile wallet are within an acceptable range, between -2 and +2. Thus, it concludes that in this study, the data set is normally distributed.

### C. Reliability Test

Reliability test is used to identify the questionnaire construct of the study which include the internal consistency and reliability. As mentioned by [73], the reliability and acceptability of the Cronbach Alpha value should be higher than 0.7. The Cronbach's Alpha values for all variables which are perceived ease of use, usefulness, trust, security and young customer satisfaction of mobile wallet are reliable and valid due to the variables values range from 0.749 to 0.886.

### D. Multiple Regression

No multicollinearity issue is found among all the variables due to each of the variable tolerance value is more than 0.1 while the variance inflation factor (VIF) value are less than 10. As indicated in Table 1, there are two independent variables show significant and positive relationship with young customer satisfaction of mobile wallet which consists of perceived ease of use and security of mobile wallet as their p-value is less than 0.05. In contrast, there are two determinants that have no relationship with young customer satisfaction in mobile wallets which are usefulness and trust of mobile wallets. As the p-value for usefulness and trust are 0.976 and 0.87 respectively, which p-values are greater than 0.05. Among two factors, security is the strongest predictor for young customer satisfaction of mobile wallet as the value of beta shows 0.543 while perceived ease of use shows 0.320. Moreover,  $R^2$  for young customer satisfaction of mobile wallet achieves 0.675, in other word it can show that 67.5% of young customer satisfaction of mobile wallet is significantly explained by perceived ease of use and security.

Table 1: Multiple Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Perceived Ease of Use	.308	.061	.320	5.013	.000
Usefulness	-.002	.058	-.002	-.030	.976
Trust	.091	.053	.112	1.720	.087
Security	.428	.042	.543	10.155	.000

a. Dependent Variable: Young customer satisfaction of mobile wallet

## VI. DISCUSSION

The finding shows that perceived ease of use possess a positive and significant influence on Malaysian young customers' satisfaction of mobile wallet. The finding is similar to [32] where perceived ease of use and customers' satisfaction of mobile wallet are positively related. Also, [74] found that mobile wallet need to be simple to use for payment purposes. When the ease of use is high for mobile wallet, the customers' satisfaction will be high. Moreover, the results are compatible with previous studies by [33], the ease of use is found to be a vital driver of consumer satisfaction, as consumers who could use the mobile wallet easily as their financial tool to perform things better and effectively in their daily lives. Besides, the result is aligned with prior results which easier-to-use interface on mobile phone for activities involving banking contribute to high customer satisfaction of mobile wallet [28]. Meanwhile, this study is congruent with previous findings which confirms the significant influence of ease of use factor on customers' satisfaction of mobile wallet as the major benefit of mobile payment is customer could easily perform transactions at anytime and anywhere [75]. In this study, Malaysian young consumers could be satisfied with mobile wallets since mobile wallets are technology-friendly and easy to understand and manipulate [76]. As such, the first research objective is achieved and H1 is substantiated.

The results of this study found that there is no significant effect between usefulness and young customer satisfaction of mobile wallet in Malaysia. The finding of this study is inconsistent with previous studies conducted by [40], [42], [65], that usefulness is critical factor for satisfaction of mobile wallet. However, the finding is similar to [34], consumers do not consider mobile payment services to be useful devices because mobile wallets are not common in Asia countries if compared to current payment methods such as cash and debit card. Besides, since the mobile wallets usage is in the early stage of market adoption, especially in Asia countries,

consumers may not view it as a viable and widespread method for making transactions, therefore they do not fully value or assess it in terms of its benefit [25]. Moreover, the results of this study concur with [77], at this early stage of adoption, consumers may have limited capabilities to evaluate the effectiveness and usefulness of mobile wallet features due to lack of information about mobile wallet services. In addition, [78] highlighted that Malaysians younger consumers may not use mobile wallet's certain services or features because the features are not useful to them in their day-to-day activities such as donation and delivery of food where the food delivery service is only available in a certain location. The present findings do not support the second research objective since usefulness and young customer satisfaction of mobile wallet are not positively related. Therefore, the second research objective is not achieved and H2 is unsubstantiated.

The third objective and hypothesis (H3) are used to identify the significant relationship between trust and young customers' satisfaction of mobile wallet. The results of this study found that there is no significant relationship between the trust and customer satisfaction of mobile wallet which the results differ from those of previous studies such as [79]–[81]. According to [51], trust in mobile payment is essential to influence an individual to use mobile payment services. However, when consumers have no much interaction or usage on mobile payment services, their satisfaction does not affect by the trust of mobile wallet. Furthermore, there are various types of mobile wallets currently available in Malaysia with a phenomenon of “choice overload”, so not every user will adopt all types of mobile wallet. Meanwhile, different merchants or sellers will adopt different mobile wallet to conduct their business transactions. If consumers do not have the requested type of mobile wallet, then they have to adopt conventional payment method such as paying cash instead of using their mobile wallet to make payments. Hence, the possibility to make transactions by using mobile wallet is very low, so it may difficult to build trust and increase satisfaction toward mobile wallet services. Besides, [82] highlighted that mobile wallet in Malaysia is still at the infancy stage where the system is unready and it may cause any issues such as missing transactions. This might affect the trust of Malaysian

young consumers to fully depend on mobile wallet for financial transactions. To conclude that, young customer satisfaction is not affected by the trust of mobile wallet. As such, the third research objective is not achieved and H3 is not supported.

The findings of this study indicate a significant effect between security and customer satisfaction of mobile wallet among young customers in Malaysia. The result is consistent with the previous research conducted by [83]. Security is always seen as an important part of the satisfaction of all parties in business transactions [60]. Also, the results are aligned with previous studies by [84], as security risk perceptions decrease, customer satisfaction with mobile wallets is expected to increase; enhanced security attribute affects degree of customer satisfaction directly. In addition, consumers are delightful with the use of mobile wallets due to the high security of the mobile payment process, no internal and external viruses as well as low accidental threats [85]. In a same vein, the findings converge with previous studies by [83], young consumers are satisfied to use mobile wallet to make payments or bills because of the system capability in protecting their personal information and sensitive data (card number). According to [12], satisfaction of mobile payment is high because of the high security of digital wallets that use data encryption, authentication and monitoring to protect personal data. In Malaysia, [78] found that Malaysian young consumers feel comfortable and satisfied to use mobile wallet services due to advance encryption on mobile wallet. It can be concluded that young consumer satisfaction is affected by the security of mobile wallets. Therefore, the fourth research objective is achieved and H4 is supported.

## VII. RESEARCH IMPLICATIONS

The study found that perceived ease of use and security of mobile wallet have an impact on customers' satisfaction of mobile wallet. Besides, security is the strongest predictor for customer satisfaction of mobile wallet, followed by perceived ease of use. To deal with services including financial transaction, security is always users' major concern. This means mobile payment system is able to protect user personal information and bank data with no unauthorized use. Furthermore, mobile wallet

payment providers use advanced encryption technology to increase mobile wallet security such as adding passwords functionality. Hence, service providers are urged to improve and increase the security of mobile wallets in order to increase customers' satisfaction of mobile wallet. Meanwhile, a secure mobile wallet can increase satisfaction and confidence of individuals to use digital payments as a safer and more efficient choice than physical payments.

Moreover, perceived ease of use is found to be one of the important predictors for customer satisfaction of mobile wallet. The features of mobile wallet such as effortless and easy to perform are essential for customers to go digital for mobile payments. When consumers perceive the easiness to use mobile wallet for fund transfers, utilities payment and online shopping, they will consider that mobile wallet is useful for their daily activities. In fact, consumers who satisfied with the mobile wallet are those tech-savvy young consumers who are willing to learn and conduct transactions by using mobile wallet. In this study, the respondents are young consumers who are undergraduate students who aged between 20 to 39 years old. They are more familiar with innovative products including mobile wallet that are highly secured.

In addition, this study provides useful guidelines to mobile wallet service providers to increase satisfaction of young customers using perceived ease of use and security. In academic context, perceived ease of use and security have a positive relationship with customer satisfaction of mobile wallet meanwhile, security factor is the strongest predictor. Hence, this finding is helpful for future researches since there are limited studies about factors driving customer satisfaction of mobile wallet in Malaysia or determinations to increase customer satisfaction of mobile wallet.

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