

Factor Influence User's Intention to Continue Use of Mobile Payment in Indonesia: Fintech Perspective

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Abstract

This research aims to examine the influence of perceived usefulness and perceived ease of use on consumer attitude and the influence of consumer attitude on continuance intention among mobile payment users in Indonesia. Primary data was obtained by distributing online questionnaires to mobile payment users. Partial least squares–structural equation modelling (PLS-SEM) is used to test the influence of perceived usefulness and perceived ease of use on consumer attitude as well as the influence of consumer attitude on continuance intention of mobile payment. The results of this research are that perceived usefulness was found to have no effect on consumer attitude and continuance intention of mobile payment. Perceived ease of use was found to have a significant positive effect on consumer attitude. Likewise, consumer attitude was found to have a significant positive effect on the continuance intention of mobile payment.

Keywords: *perceived usefulness, perceived ease of use, consumer attitude, continuance intention, mobile payment*

INTRODUCTION

Digital payments have experienced significant development in Indonesia, along with technological advances. Its history starts from the independence era to the current

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digital era. During the Dutch and Japanese occupation and the beginning of independence, Indonesian people were familiar with two types of payment systems, namely cash and non-cash. As technology develops, new financial institutions, such as fintech, are starting to offer more sophisticated payment systems, making buying and selling transactions more practical. People can now choose various payment methods more flexibly, including e-money and digital wallets (e-wallets) such as Gopay, ShopeePay, OVO, and DANA (Silvia, 2022). Apart from that, several factors that influence interest in using digital payments include convenience, benefits, security and service features (Dirwan & Latief, 2022).

According to a survey conducted by Dailysocial, OVO's electronic money (e-money) service is the most widely used, with a percentage of OVO users of 58.9%. The second position is occupied by GoPay (58.4%) and ShopeePay (56.4%). Meanwhile, fourth place is DANA (55.7%), and fifth is LinkAja (18.4%) (Burhan, 2022). The phenomenon of increasing use of digital wallets indicates that society, in this case, users, has accepted digital wallet payment applications to support daily transaction activities. This phenomenon is considered important because it leads to changes in people's behavior and culture in making non-cash transactions (Ardianto & Azizah, 2021).

Usability factors act as considerations for consumers before deciding to become a user of a digital payment service. The convenience factor is also a consideration for users before deciding to become a user of a digital payment service (Brahanta & Wardhani, 2021). Perceived usefulness is a measure to determine a person's confidence level in using a system to improve its performance. If someone believes in a useful information system, then the system will be used and vice versa. Perceived usefulness is the possibility for someone to perform better in an organizational context using a particular application system. Perceived ease refers to an information technology system that individuals trust so that it does not cause a large business hassle to use. Perceived ease of use is how much a person believes that using a technology will free him from effort. If an information system is deemed easy to use, someone will be motivated to continue using it in their daily activities. On the other hand, if the information system is not easy to use, then he will not use it (Ardianto & Azizah, 2021).

Another factor that influences consumers in reusing is attitude. Attitude is conceptualized as an attitude towards using a system in the form of acceptance or rejection as an impact when someone uses a technology in their work. Attitude explains a person's acceptance of information technology. A person's attitude consists of cognitive



affective elements and components related to behavior (Rithmaya, 2016). Attitude formation will influence consumer behavioral intentions in adopting or using Internet banking. Attitudes, in this case, will influence specific behavior in utilizing information technology, which is indicated by behavioral intentions (Istiarni & Hadiprajitno, 2014).

This research answers two research questions: (i) What is the impact of perceived usefulness and perceived ease of use on the continuance intention of mobile payment? (ii) What is the consumer attitude towards the continuance intention of mobile payment? In line with the research questions, two research objectives are answered. The two research objectives are: (i) To understand the relationship between perceived usefulness and perceived ease of use on continuity of intention of mobile payment. (ii) To understand the relationship between consumer attitude and continuance intention of mobile payment.

OBJECTIVES

The Technology Acceptance Model (TAM)

This research is based on TAM (Davis, 1989) and the theory of planned behavior (TPB) by (Fishbein & Ajzen, 1975). TAM comes from the theory of reasoned action (TRA) and includes attitudes, behavioral intentions, and external variables to understand personal internal beliefs and attitudes. TRA suggests that behavior originates from intentions, which are influenced by attitudes and subjective norms (Fishbein & Ajzen, 1975). Attitudes toward a new technology, based on perceived usefulness and ease of use, can be positive or negative. In short, TAM is designed to anticipate information technology adoption with perceived usefulness and perceived ease of use as attitudinal antecedents.

In contrast, the TPB has two additional constructs: subjective norms and perceived behavioral control (Ajzen, 1991). As suggested by the TPB, when a person feels control over a particular behavior, that behavior is more likely to be carried out positively. Therefore, an individual's attitude towards a particular behavior is based on the extent to which he makes a favorable or unfavorable evaluation (Ajzen, 1991).

The Expectation Confirmation Theory (ECM)

The expectation confirmation model (ECM) theory originates from the theory of customer satisfaction and dissatisfaction and emphasizes the post-acceptance of information systems (Bhattacharjee, 2001). ECM theory states that judgment and inner evaluation processes are important for determining user continuation behavior



(Bhattacharjee, 2001). The construct of perceived performance is added in the customer satisfaction disconfirmation model, but in the ECM model, performance is measured through user satisfaction (Bhattacharjee, 2001). ECM theory includes four main factors: confirmation of user expectations, usability, user satisfaction, and user continuance intention. The ECM model is the degree to which users feel that initial expectations are confirmed through actual use. In Internet banking, ECM is viewed as the extent to which Internet banking services meet user expectations (Venkatesh, Morris, Davis, & Davis, 2003).

Perceived usefulness

Perceived usefulness is defined as a person's belief that using a particular system will improve their performance at work (Davis, 1989). Although technological advances allow individuals to interact with others through positive or negative reactions (Leonardi, 2013), research notes that the more useful a technology is, the more positive a person's attitude will be. Research on Internet banking success found an association with continued use of Internet banking, not initial adoption (Froughi, Iranmanesh, & Hyun, 2019). Early adoption of electronic banking is critical because dissatisfaction may lead to discontinuing Internet banking services (Yuan, Liu, Yao, & Liu, 2016). Studies based on information systems literature have emphasized the importance of sustainability intentions in mobile banking (Froughi, Iranmanesh, & Hyun, 2019). The hypothesis is proposed as follows:

- H1. There is a positive relationship between perceived usefulness and continuance intention of mobile payment.

Likewise, the perceived usefulness of information technology positively impacts attitudes (Koenig-Lewis, Palmer, & Moll, 2010). The literature identifies perceived usefulness as an important element influencing users' attitudes toward technology (Alhassan, Kolog, & Boateng, 2020). It can be stated in the following hypothesis: Likewise, the perceived usefulness of information technology positively impacts attitudes (Koenig-Lewis, Palmer, & Moll, 2010). The literature identifies perceived usefulness as an important element influencing users' attitudes toward technology (Alhassan, Kolog, & Boateng, 2020). So it can be stated in the following hypothesis:

- H2. There is a positive relationship between perceived usefulness and consumer attitudes.



Perceived ease of use

Ease of use refers to customers' willingness to use technology or systems that they believe require little effort (Davis, 1989). Scholars have extensively studied perceived ease of use to predict user attitudes and technology adoption (Liebana-Cabanillas, Munoz-Leiva, & Sanchez-Fernandez, 2018). Demographically, perceived ease of use influences consumer attitudes based on education and income (Alhassan, Kolog, & Boateng, 2020). Proposed hypothesis:

- H3. There is a positive relationship between perceived ease of use and consumer attitudes.

Consumer attitude

Attitude is a user's positive or negative attitude towards a particular technology or service (Praveena & Thomas, 2015). It is an overall evaluation of a product or service offering that includes functional and experiential assessments (Lee & Jeong, 2012). Although TAM argues that users' attitudes toward technology use determine their behavior, attitudes are relatively persistent and consistent traits that are not easily changed. Previous research has also determined that continuance intention is influenced by consumer attitudes (Koloseni & Mandari, 2017); (Raman & Aashish, 2021). Users' positive attitudes towards mobile payments increase their likelihood of continuing to use the service. Therefore, we hypothesize the following:

- H4. There is a positive relationship between consumer attitudes and continuance intention of mobile payment.

We then propose a research model and hypotheses related to mobile payment adoption as Figure 1.

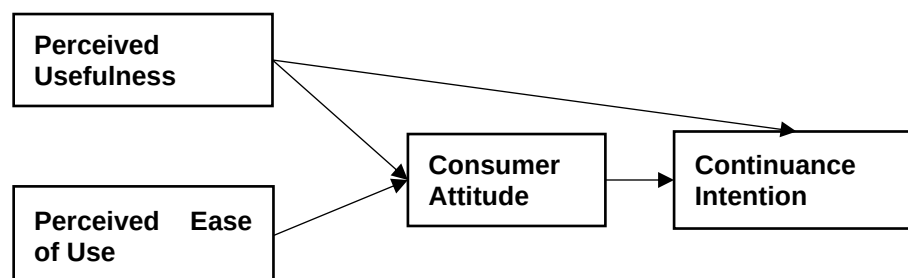


Figure 1: Research Model

METHOD

Sampling procedures and data collection

The target population in this research focuses on mobile payment users aged 13 - 42 years (generations Y and Z). This age range was chosen because it is a major user segment. After all, they make more mobile payment transactions.

This research uses a purposive sampling method by distributing questionnaires online to mobile payment users. The respondent criteria are visitors who have previously used mobile payments. Respondents who had never used mobile payments before were excluded from this study. Respondents were asked to answer questions based on the types of mobile payments they frequently use.

Questionnaires were distributed to 100 respondents using an online survey. During the data collection process, five respondents had never used mobile payments, and five respondents did not complete the questionnaire. In the end, 90 questionnaires could be used for analysis.

Measurement instruments

The measurement items in this research were adapted from previous research to measure all constructs in the proposed research model (Table 1). Perceived usefulness uses four measurement items (Venkatesh, Morris, Davis, & Davis, 2003); perceived ease of use uses three measurement items (Turel, Serenko, & Giles, 2011); consumer attitude uses four measurement items (Curran & Meuter, 2005), while continuance intention uses four measurement items (Cheng, Lam, & Yeung, 2006), (Lee M. , 2009).

DISCUSSION

Respondents' profiles

The research sample consisted of men (28%) and women (72%) aged 13 to over 42 years. Most respondents were aged between 13 and 27 years (86%) with an average education of a Bachelor's degree (77%). All respondents have used mobile payments, including Go-Pay, ShopeePay, OVO, DANA, Flip, QRIS, and Debit Card. In general, the research sample is suitable for this research.

Data analysis

This research uses partial least squares–structural equation modeling (PLS-SEM) to analyze the data obtained. PLS-SEM is used in this research because it can be used

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to research a small number of constructs and to conduct exploratory research with a combination of explanatory and predictive (Hair, Hult, Ringle, & Sarstedt, 2017).

Measurement model assessment

The first stage of model measurement is reliability and convergent validity. Reliability and convergent validity are acceptable if the factor loadings and composite reliability (CR) values exceed 0.70. The average variance extracted (AVE) is higher than 0.50 (Hair, Hult, Ringle, & Sarstedt, 2017) presented in Table 1, the factor loadings of all variables on the measurement items exceed 0.70, while the CR of all constructs exceeds 0.70, and the AVE of all constructs exceeds 0.50, thus confirming the reliability and convergent validity. Discriminant validity was checked using the Fornell-Larcker Criterion criterion. As presented in Table 2, the square root of the AVE of each construct must be higher than its highest correlation with other constructs (Hair, Hult, Ringle, & Sarstedt, 2017).

Table 1. Measurement model results

Measurement items	Loading	t-values	CR	AVE
Perceived usefulness (Venkatesh, Morris, Davis, & Davis, 2003)			0,915	0,728
<i>I think that using mobile payment would enable me to accomplish my tasks more quickly</i>	0,781	10,022	-	-
<i>I think that using mobile payment would make it easier for me to carry out my tasks</i>	0,880	22,708	-	-
<i>I think mobile payment is useful</i>	0,856	15,888	-	-
<i>Overall, I think that using mobile payment is advantageous</i>	0,891	33,706		
Perceived ease of use (Turel, Serenko, & Giles, 2011)			0,854	0,662
<i>I think that learning to use mobile payment would be easy</i>	0,787	16,148	-	-
<i>I think that interaction with mobile payment does not require a lot of mental effort</i>	0,770	13,429	-	-



<i>I think that it is easy to use mobile payment to accomplish my financial tasks</i>	0,879	28,678		
Consumer attitude (Curran & Meuter, 2005)			0,914	0,727
<i>I think that using mobile payment is a good idea</i>	0,835	25,047	-	-
<i>I think that using mobile payment for financial transactions would be a wise idea</i>	0,924	67,325	-	-
<i>I think that using mobile payment is pleasant</i>	0,869	24,429	-	-
<i>In my opinion, it is desirable to use mobile payment</i>	0,777	15,811		
Continuance intention (Cheng, Lam, & Yeung, 2006) and (Lee M. , 2009)			0,933	0,777
<i>I would positively consider mobile payment in my choice set</i>	0,796	16,736	-	-
<i>I would prefer mobile payment</i>	0,909	38,388	-	-
<i>I intend to continue to use mobile payment</i>	0,920	43,299	-	-
<i>I will use mobile payment in the future</i>	0,895	37,813		

Table 2 Discriminant validity

	Consumer attitude	Continuance intention	Perceived ease of use	Perceived usefulness
Consumer attitude	0,853			
Continuance intention	0,761	0,882		
Perceived ease of use	0,699	0,676	0,813	
Perceived usefulness	0,621	0,513	0,673	0,853

Structural model assessment

The next stage is testing the structural model. In Table 3, only two hypotheses were not accepted of the four hypotheses. Perceived usefulness did not affect consumer attitude ($\beta = 0.276$, $p = 0.054 > 0.05$). This finding aligns with previous research, which found that perceived usefulness did not affect consumer attitude (Rahi, Khan, & Alghizzawi, 2021). Perceived usefulness was also not affected by continuance intention of mobile payment ($\beta = 0.066$, $p = 0.420 > 0.05$). This finding does not align with previous



research, which found that perceived usefulness affected continuance intention of mobile payment (Rahi & Ghani, 2021).

Perceived ease of use was found to have a significant positive effect on consumer attitude ($\beta = 0.513$, $p = 0.000 < 0.05$). Perceived ease of use supports consumer attitudes towards using mobile payments. If users believe that mobile payments are simple and easy to use, they will ultimately have a more positive attitude towards them. It confirms the findings of previous research (Laksamana, Suharyanto, & Cahaya, 2021); (Liebana-Cabanillas, Munoz-Leiva, & Sanchez-Fernandez, 2018); (Rafidinal & Senalasari, 2021). We also argue that there are at least two components of positive feedback to ease of use in consumer attitudes: the first is convenience, which means saving time by avoiding physical queues and increasing safety in this pandemic era. The second is affordable technology. Furthermore, we suggest that fintech companies develop robust applications with user-friendly interfaces to expand consumer ease of use.

Consumer attitude was found to have a significant positive effect on continuance intention ($\beta = 0.720$, $p = 0.000 < 0.05$). This attitude makes them consider mobile payments for their future fintech needs. Therefore, the results support the theory that attitude influences continuance intention directly and positively. This finding is in line with previous research (Laksamana, Suharyanto, & Cahaya, 2021); (Koloseni & Mandari, 2017), (Raman & Aashish, 2021); (Verma, Chaurasia, & Bhattacharyya, 2020) and is also in line with research in the food and beverage sector which shows that memorable experiences create interest in returning (Novianto, Sudarmiati, & Hemawan, 2023).

Hypotheses		Path coefficient	p values	Remark
H1	Perceived Usefulness → Continuance Intention	0,066	0,420	Not-Supported
H2	Perceived Usefulness → Consumer Attitude	0,276	0,054	Not-Supported
H3	Perceived Ease of Use → Consumer Attitude	0,513	0,000	Supported
H4	Consumer Attitude → Continuance Intention	0,720	0,000	Supported

To explain the explanatory power of the research model, the coefficient of determination, R² value, is used. The R² value of consumer attitude (R² = 0.530) and the R² value of continuance intention (R² = 0.582). This explains that variations in endogenous variables can explain exogenous variables.

Next, the blindfolding procedure is used to assess the research model's predictive relevance (Q²). The Q² value is for consumer attitudes (Q² = 0.375) while the intention to continue (Q² = 0.442). The resulting Q² value greater than 0 indicates that the exogenous construct has predictive relevance to the endogenous construct being considered (Hair, Hult, Ringle, & Sarstedt, 2017). Figure 2 summarizes the results of the research model.

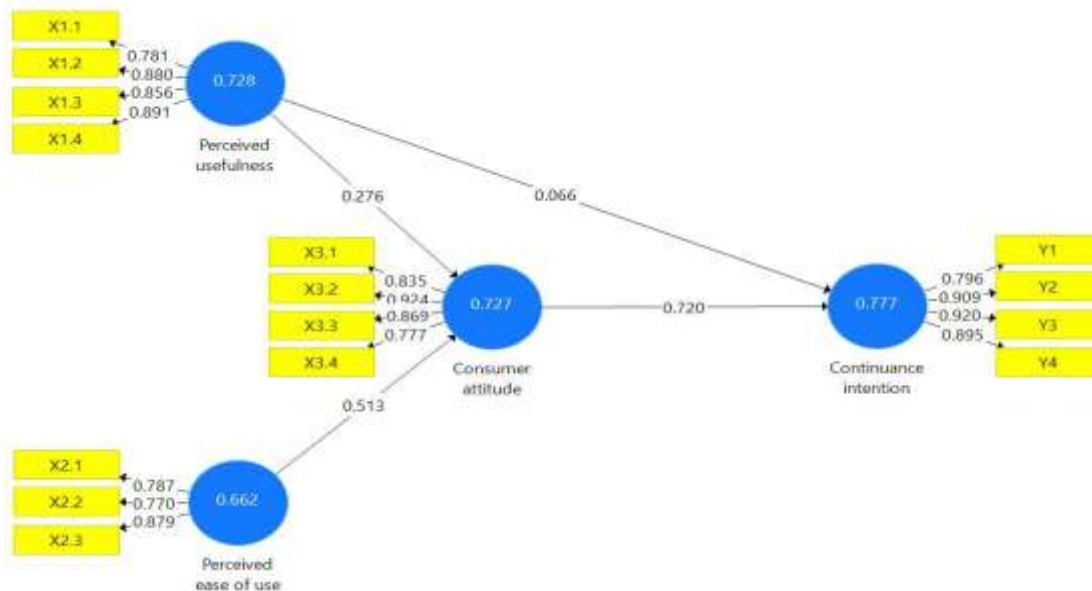


Figure 2: Results of Research Model

CONCLUSION

Perceived usefulness was found not to affect consumer attitude and also had no effect on continuance intention of mobile payment. These results indicate that respondents feel that mobile payments require extra time and feel that mobile payments could be more useful. This condition gives rise to the user's attitude that mobile payments are less enjoyable, so users are reluctant to use mobile payments in the future. Perceived ease of use was found to have a significant positive effect on consumer attitude. These

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results show that digital payments are easy to use and do not require much effort. In addition, the ease of completing transactions makes respondents choose to use mobile payments for payments. Finally, consumer attitude was found to have a significant positive effect on continuance intention. These results show that respondents feel that using mobile payments is a good and wise idea for completing financial transactions. Respondents also felt it was better to use mobile payments because it was fun.

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