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Factors affecting the use of E-Wallet in JABODETABEK Area

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ABSTRACT

The purpose of this study is to analyze the influence of trust, social influence and promotion on the intention to use e-wallets in the Jakarta, Bogor, Depok, Tangerang and Bekasi (Jabodetabek) regions. This study uses a quantitative approach with an explanatory design in accordance with the focus of the study, the population in this study is all e-wallet users in Indonesia. The sample selection uses a non-probability sampling method and a sample of 143 e-wallet users is used. The minimum number of samples is determined based on the number of research indicators. The method used in this study is multiple linear regression models with the help of the SPSS program. The results showed that trust and promotion partially had a significant effect on intention to use e-wallet. However, social influence does not significantly influence the intention to use e-wallet. For this reason it is suggested to the management to pay attention to these factors, by maintaining trust, paying attention to social factors and increasing promotion, it will have an impact on increasing intention to use e-wallets.

**Key words:** E-wallet, Confidence, Social Influence, and Promotions

1. INTRODUCTION

Innovations in digital technology have changed the way people shop and trade. One example is e-commerce, which has gradually made people move from shopping directly at offline stores to shopping at online stores. E-commerce is changeing the way people shop and transact using electronic payments. E-payment can be defined as a method of payment that is paperless (Tella, 2012). Electronic payments consist of several types of payment instruments and one of them is an electronic wallet (e-wallet). E-wallet is an e-service that allows users to store and control their personal information related to online shopping activities (Uddin and Akhi, 2014).

The growth of digital payments is increasing every year. In 2016, the volume of non-cash transactions in the world reached 482.6 billion, an increase of 10.1% compared to 2015. Following the growth conditions of digital payment transaction activities in each country, can be seen in Figure 1.

The growth of transaction activity in developing Asian countries approximately reach 25.2%, and CEMEA (Central Europe, Middle East, and Africa) reach 17.1%. Meanwhile, from developed countries in North America, Europe, Japan, Australia, South Korea and Singapore contributed 7.1%. Non-cash transaction estimated at 876.4 billion in 2021. Developing countries in Asia, including Indonesia, is estimated to account for 28-29% of all non-cash transactions globally in 2021. By 2016, the volume of global e-wallet transactions estimated to account for nearly 8.6 % of all non-cash transactions or the equivalent of 41.8 billion transactions. China was a major contributor in the e-wallet transactions in 2016 accounted for 16.3 billion transactions. One of the main drivers of e-wallet growth is the advancement of cellular technology. The increasing number of mobile technology and smartphone user penetration is affecting e-wallet expansion (Capgemini and BNP Paribas, 2018).
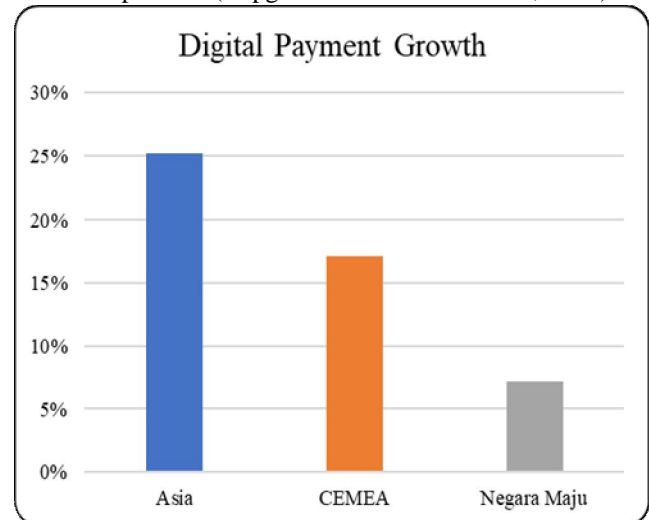
Figure 1: Growth in Digital Payment Transaction Activities in Developing Countries, CEMEA Countries and Developed Countries

In Southeast Asia, the level of penetration of electronic payments including electronic wallets is still not optimal where cash still dominates. Some people still send money in cash to their relatives through a type of post or money order (Aravindan and Vu, 2018). Things that do not differ much also occur in Indonesia, the use of cash is still dominant in Indonesia due to several reasons such as the high number of people who do not have bank accounts, limited internet connectivity, payment infrastructure is still fragmented and undeveloped and people who believe in electronic payments

are still low. Data in 2017 concludes that Indonesian consumers are still considered low in financial literacy and are afraid of fraud for making online payments. Other data also shows that 64% of the population aged 15 years and over still do not have a bank account and only about 4% of the population has a credit card (KPMG, 2017). In Indonesia, internet connectivity is still not available or limited in some areas, especially in remote areas, which makes it difficult to adopt payment methods using e-wallet. In Malaysia, despite initial rumors about e-wallet, e-wallet adoption is still considered low. According to data collection, only 22% of respondents were e-wallet users. They use e-wallets only 1 to 5 times a week and mostly for e-commerce activities, food, beverage and retail purchases (PWC, 2018).

The low growth of e-wallets in Indonesia is one of the factors behind the author's research on e-wallets, this is as stated by a survey of the Indonesian Internet Service Providers Association (APJII), 56% or 95.8 million internet users in Indonesia have never shopped on line. Even though there are around six million online merchants in Indonesia. Penetration of e-wallet in Indonesia is still very low, so there is a huge opportunity to grow 10 times, 20 times from year to year (APJII, 2018).

Several previous studies have been conducted on e-payment or e-wallet, Reza (2019) examined the success factors of e-payment systems, the results of these studies found that connectivity, efficiency, promotion, profit, security were proven to influence the use of e-payment. Another study conducted by Tella (2014) found that speed, system security, and comfort are factors that influence user satisfaction in using electronic payment systems. Research by Salloum, et al (2019) regarding adoption of the use of e-payment systems found that perceived benefits and performance expectations have a significant positive relationship with students' intention to use electronic payment systems, while security or privacy and risk show a significant negative relationship. However, trust has an insignificant relationship with the intention of using an electronic payment system. From some of the results of studies that have been carried out, it can be seen that there are inconsistencies in the results of research between researchers with one another.

Based on the explanation above, the purpose of this study is to have better understanding on how the acceptance of Indonesian people, more specifically Jabodetabek residents, towards e-wallet. In addition, this study also aims to find out the factors that influence these residents to adopt e-wallet, whether promotion, trust and social influence have a positive influence on the actual use of e-wallet by Jabodetabek residents.

2. LITERATURE REVIEW

1. E-wallet

E-wallet basically has functions like a physical wallet, which can be used to save money, user identity, credit card information and other information needed for when transacting online or on e-commerce sites. By using e-wallet, transactions and shopping processes become more efficient because by simply entering the information needed once, consumers can do transactions anywhere (Junadi and Sfenrianto, 2015).

An e-wallet can also be defined as a type of prepaid account that is guaranteed by a password and users can store their cash electronically and use it later for online payments. E-wallet has several advantages such as faster registration, easier to use, easily connected to other accounts and secure (Ali and Gopalan, 2018). Compared to other payment methods, e-wallet is faster and easier to use. The e-wallet function includes online purchases and bill payments and its function is not limited to bank account transfers. E-wallet users can also monitor or track the transactions they make (Chandra, et al, 2017).

Today there are many companies that have developed and provided electronic wallets. Alipay, WeChat Pay, Google Wallet, Android Pay, Venmo are some examples of e-wallets in the world. GoPay, OVO, LinkAja are some of the names of e-wallets known in Indonesia.

2. Trust

Trust is defined as the willingness of certain parties to entrust the actions of other parties based on the expectation that the other party will take certain actions that are important to the trustor, regardless of the trustor's ability to monitor or control the other party (Mayer et al., 1995). In the context of the adoption of a technology, the concept of trust is related to the intention or belief in using the technology (Chatterjee & Bolar, 2018). Trust in service providers is defined as customer confidence that the service providers have integrity and are reliable (Shin, 2013). Then, trust is also defined that service providers will carry out activities as expected by their customers (Pavlou and Gefen, 2004). The definition of customer trust in conducting transactions online can refer to the customer's belief in service providers that their money will not be stolen, their personal information will not be stolen and all related parties will be concerned with customer interests even though the system is imperfect (Abrazhevich, 2001).

3. Social influence

Social influence can be interpreted as an effort made by an individual or more to change a person's beliefs, perceptions and behavior (Venkastesh et al., 2003). Social influence can also be interpreted to the extent that consumers feel that others who are important to him, such as family and friends, believe that they must use certain technologies (Venkastesh et al., 2012).

In the diffusion innovation literature, social influence has long been regarded as an important element in explaining the adoption behavior of a technology (Cooper and Zmud, 1990; Karahanna et al., 1999). In a study it was mentioned that this social influence is related to norms and subjective images taking into account the user's volunteerism in using electronic payments (Lu et al., 2005). Social influence refers to social

pressure on technology adoption or innovation (Lu et al., 2005; Yang et al., 2011).

In the context of the use of technology, social influence can have an influence as well. Someone will have an interest in using a particular technology because there are others who also use it. The perceived influence and support obtained by someone using this technology can be stated as an aspect of social influence (Venkastesh et al., 2003).

4. Promotion

A matter or action taken with the aim of informing and persuading the market regarding new products or services from the company. Promotional activities can include advertising, personal selling, public relations and publicity, sales promotion and direct marketing (Kotler and Keller, 2012). Promotion is the process of informing, persuading, and influencing a purchasing decision (Daramola et al, 2014). One important factor in promotion is the selection of a promotional mix consisting of advertising, individual sales, sales promotions, public relations, word of mouth information and direct notification letters (Lupiyoadi et al., 2012)

Sales promotions that increase product attractiveness have a positive effect on consumer behavior (Yeshin, 2006). It is agreed by other studies that sales promotions using price reductions and coupons have a significant effect on customer satisfaction when shopping at a store, which is related to behavioral intentions (Park et al, 2013).

5. Intention to Use

Intention is a cognitive representation that underlies a person to behave and intention is a reliable parameter for predicting it (Shin, 2010). In another definition intention is an individual's attitude towards a behavior which is the driving factor for the individual's actual behavior (Fishbein and Ajzen, 1975). Someone is expected to have a higher level of intention if they think that they have more opportunities and resources (Venkatesh et al, 2012). The desire or intention to do something is a factor that drives someone to take an action (Jogiyanto, 2007).

6. Hypotheses

In some previous studies, trust was an important factor influencing customers in adopting online payment-related technologies (Chandra et al., 2010; See-To and Ho, 2010; Chatterjee and Bolar, 2018; Sharma et al., 2018; Shin, 2009). Trust has a positive effect on customer intentions to use mobile wallet (Shin, 2009). In another study it was stated that the low level of customer trust in mobile banking would hamper the adoption of the technology. Mobile wallet has relatively the same characteristics as mobile banking, so trust has a positive impact on the adoption of the technology (Sharma, et al, 2018). Another study also showed that trust has a positive effect on the intention to continue using mobile wallets in developing countries (Kumar et al, 2017). In e-commerce, the customer's intention to use an electronic payment system ultimately depends on the level of trust in the system (Sundjaja and Komala, 2018). Customers will easily switch to using another system if they have a higher level of trust in the other system. Consumers in Indonesia in adopting new technologies tend to pay more attention to the benefits compared to the risks (Hidayanto et al, 2015). Based on the explanation above, the hypothesis in this study is:

H1: Trust positively influences the intention to use e-wallets

Consumer decisions at first, usually made because of the influence of the people closest. The effect can be positive because they feel the benefits and lifestyle or negative because of the experience of discomfort (Hidayanto et al, 2015). Social influence is one of the factors that can influence the adoption and utilization of new technologies (Brown and Venkatesh, 2005). Other research defines social influence as a person's perception that most people who are important to him think that they should or should not carry out the intended behavior (Nysveen et al, 2005). From previous studies it was mentioned that the influence of peers, family and media influences a person's decision to adopt car commerce (Chong, 2013). Other researches also state that social influence has a significant effect on consumers' intention to use mobile commerce (Khalifa and Cheng, 2014; Mun et al 2017). Thus based on the explanation above, the hypotheses in this study are:

H2: Social influence positively influences the intention to use e-wallet

Online sales promotion has a significant influence on purchase intentions by increasing perceived ease of use and by reducing perceived risk (Ye and Zhang, 2014). Another study also said that promotional activities provide cost savings, good quality and comfort for consumers. Promotion through complementary products and price promotions have a significant impact on consumer purchase intentions with mental account actions as mediating roles in the process (Zhang et al, 2017). In cases related to electronic payment studies, promotions provided by electronic payment providers positively affect the customer's purchase intention to use electronic payments. Thus, based on the explanation above, the hypotheses in this study are:

H3: Promotion positively influnces the intention to use e-wallets

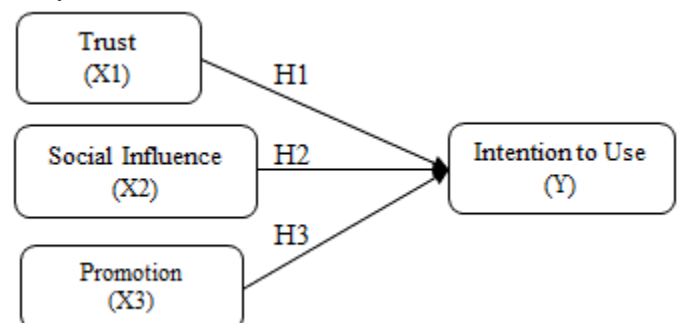Based on the explanation above, the research model of this study is as follows

Figure 2: Research Model

3. METHODS

The type of this research is quantitative method. In order to answer research problems and research questions, conducting survey using questionnaire is used as research strategy. Online questionnaire is used in this research because it is easy to be distributed and it is fast to collect the data. The survey is used to understand the correlation of several factors on people's acceptance of e-wallet. The variables used in this study are explained through measurable indicators which are explanations of the process of operating variables. Indicators for each of these variables are adapted from previous studies. In this study a five-point Likert scale was used. Operationalization of variables in this study can be seen in Table 1.

Table 1: Operasionalization Variable

Variable	Code	Indicator	Reference
Trust	TRU1	I believe tthat e-wallet system can be trusted	Hidayanto, et al (2015), Trivedi (2016), Kumar, et al (2017)
	TRU2	I believe the information provided by e-wallet providers	
	TRU3	I can rely on e-wallet to do transaction	
	TRU4	I believe the e-wallet provider puts the user's interests first	
Social Influence	SOC1	I will use the e-wallet recommended by the people closest to me	Venkatesh, et al (2003), Venkatesh, et al (2012), Hidayanto, et al (2015)
	SOC2	I feel that my self-image and status have improved after I use e-wallet	
	SOC3	I will use e-wallet because most people use it too	
Promotion	PRO1	Promotions conducted by e-wallet are interesting	Alnazer (2013), Ye and Zhang (2014), Zhang, et al (2017)
	PRO2	I use e-wallet when there are promotions in the form of discounts / cashback	
	PRO3	I use e-wallet so I can get bonus points	
	PRO1	I am interested in promotions provided by e-wallet providers	
Intention to Use	INT1	If I have to choose, I prefer to use e-wallet	Venkatesh, et al (2012), Hidayanto, et al (2015)
	INT2	I intend to use e-wallet in the future	
	INT3	I think I will use e-wallet more often in the future	
	INT4	I would recommend using e-wallet	

The research population is related to all groups of people, events or interesting things that want to be studied by researchers (Sekaran and Bougie, 2016). Population is determined based on the aim to study population characteristics (Kothari, 2004). The population in this study is e-wallet users. From this population research samples is determined. The sample in this study is the Indonesian people who live in Greater Jakarta and have used e-wallet. The number of samples can be determined based on the number of indicators in the study. The number of sample needs can be determined as much as 5 to 10 times the number of research indicators (Hair et al., 2014). In this study there are 15 indicators so that the minimum number of samples needed is between 75 samples. In this study sample collection obtained 160 samples but only 143 samples can be analyzed.

The sampling method in this research is non-probability sampling method, namely convenience sampling. The sample of respondents sought was e-wallet users in the Greater Jakarta area. The method used in this study is to use multiple linear regression models with the help of the SPSS program. The relationship between independent variables with the dependent variable can be described through a linear regression equation.

4. RESULTS AND DISCUSSIONS

1. Respondent Demographics.

From data collection, we obtained 143 sample data that could be considered valid. Demographics of respondents in this study can be seen in the figure below.
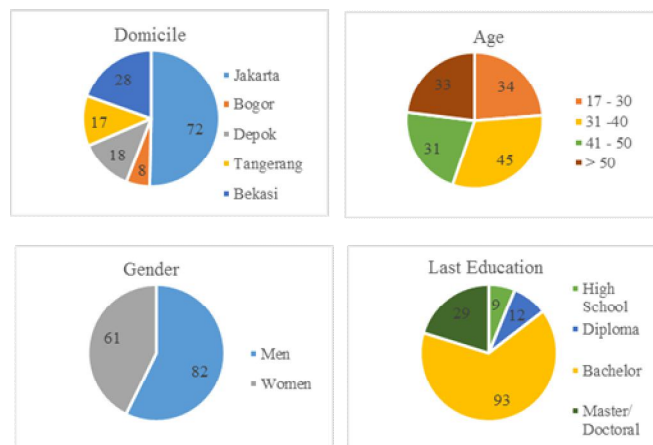

Figure 3. Respondent Demographic

2. Descriptive Statistics

Descriptive statistical analysis is used to provide basic information about the data obtained in the study. The mean (standard) and standard deviation for each indicator variable can be seen in Table 2.

Table 2: Descriptive Statistics Results

Variable	Measurement Item	Mean	Standard Deviation
Trust (TRU)	TRU1	4.077	0.751
	TRU2	4.000	0.792
	TRU3	4.084	0.906
	TRU4	3.825	0.699
Total Mean		3.997	
Social Influence (SOC)	SOC1	3.657	0.979
	SOC2	2.867	1.115
	SOC3	3.280	1.037
Total Mean		3.268	
Promotion (PRO)	PRO1	3.909	0.887
	PRO2	3.874	1.087
	PRO3	3.755	1.002
	PRO4	3.986	0.896
Total Mean		3.881	
Intention to Use (INT)	INT1	3.944	0.925
	INT2	4.119	0.835
	INT3	4.098	0.858
	INT4	4.007	0.884
Total Mean		4.042	

According to Table 3, for the trust variable, the highest average value is 4.084 from TRU3 (I can rely on e-wallet to do transaction). This means that respondents are very confident that they can rely on e-wallets for their transaction activities. Meanwhile the lowest average value is 3.825 from TRU 4 (I believe e-wallet providers puts the user's interests first). This means that respondents feel quite confident that e-wallet providers prioritize the interests of users.

Regarding social influence variables, the highest average value is 3.657 from SOC1 (I will use the e-wallet recommended by the people closest to me). This means that

respondents feel that the recommendations of the people closest to them are enough to influence them to use e-wallet). Meanwhile the lowest average score is 2.867 from SOC2 (I feel that my self-image and status have improved after I use e-wallet). This means that respondents do not agree that their self-image will improve after using e-wallet.

The highest average value for promotion variables is on PRO4 items (I am interested in promotions provided by e-wallet providers). This means that respondents feel that the promotion given by e-wallet providers is enough to make them interested. Meanwhile the lowest average value for the promotion variable is 3.755 from PRO3 (I use e-wallet so I can get bonus points). This means that respondents feel that bonus points are one of the factors that makes them use e-wallets.

For the intention to use variable, the highest average value is 4.119 from INT2 (I intend to use e-wallet in the future). This means that the respondent intends to use e-wallet in the future. Meanwhile the lowest average value is 3.944 from INT1 (If I have to choose, I prefer to use e-wallet). This means that the respondent quite likes to choose to use e-wallet.

3. Hypothesis

In this research, hypothesis testing using multiple linear regression is used to determine whether the independent variable has a significant effect on the dependent variable. If the significance value is smaller than the error rate of 5% (sig. <0.05) then the hypothesis is rejected. The results of the test are summarized in Table 3.

Table 3: Hypothesis Testing Result

Hypothesis	T-value	Significance	Significant/Not Significant	Result
H1: Trust → Intention to use e-wallet	6.640	0.000	Significant	H1 accepted
H2: Social influence → Intention to use e-wallet	1.763	0.080	Not Significant	H2 rejected
H3: Promotion → Intention to use e-wallet	5.503	0.000	Significant	H3 accepted

Based on Table 4.2 above, it can be explained that the trust and promotion variables get a significance value of less than 0.05. Thus both of these hypotheses are accepted. These results indicate that trust and promotion have a significant effect on the intention to use e-wallets. However, the significance of the social influence variable obtained is greater than 0.05. Thus the hypothesis is rejected, meaning that social influence does not significantly influence the intention to use e-wallet.

4. Discussion of Research Results

Hypothesis testing presented in this study shows that trust and promotion have a significant effect on consumers' intention to use e-wallets, while social influence has no significant effect on intentions to use e-wallets. The following is a discussion of each of these hypotheses.

• Effect of Trust on Intention to Use e-wallet

Based on the results of the first hypothesis test, it is proven that trust significantly influences the intention to use e-wallet. This result indicates that with high trust the intention to use

e-wallet will increase. These results are consistent with research results from Shin (2009), Hidayanto, et al (2015), Kumar, et al (2017) and Sharma, et al (2018), where their study says that trust has a positive effect on customer intentions to use a product. technology. Regarding Indonesian consumers, they are more likely to switch to another system if they have more confidence in the other system (Hidayanto et al., 2015). Without the trust of customers, it is not possible for e-commerce transactions to occur (Mahardhika and Saino, 2014).

• Effects of Social Influences on Intention to Use e-wallet

The second hypothesis testing results show that social influence does not significantly influence the intention to use e-wallet. This shows that the social influence of the environment and the people closest to it does not have an impact on the intention to use e-wallets. These results are different from the research conducted by Brown and Venkatesh (2005), Chong (2013), Khalifa and Cheng (2014) and Mun (2017). The study said that social influence has a significant effect on intention to use e-wallets. The results of this study, which show that social influence has no significant effect on intention to use are in line with studies from Hidayanto, et al (2015) and Shin, (2009).

• Effect of Promotion on Intention to Use e-wallet

The results of the third hypothesis testing showed that promotion proved to have a significant positive effect on e-wallet intention. This shows that the better the promotion level, the higher the intention to use e-wallet products. This result is supported by previous research conducted by Ye and Zhang (2014), Zhang, et al (2017), Yoebrilianti (2018) which shows that promotion has a significant effect on intention to use.

5. CONCLUSION

The conclusion of this research is that trust and promotion are proven to have a significant effect on the intention to use e-wallets, while social influence is proven to have no significant effect on intentions to use e-wallets, and promotion has a significant effect on intentions to use e-wallets.

From the analysis results, it can be seen that trust is proven to make respondent very sure to use e-wallets and respondents are quite sure that e-wallet service providers prioritize the interests of customers. Respondents do not agree that by using e-wallet their self-image is increasing. While the promotion variable is enough to make respondents interested in using e-wallet and bonus is one of the factors for using e-wallet. Then, in the future they intend to use e-wallet.

The suggestion by researchers is, on the e-wallet service providers to continue to maintain customer trust by prioritizing the interests of users so they trust the system, information, and can rely on e-wallet to conduct transactions. Then, to conduct more attractive promotions by giving discounts or cashback and bonus points to customers. This is

because the trust and promotion factors are proven to increase the intention of using e-wallet. To further research, to add other variables that have the potential to influence the intention to use e-wallets such as privacy, benefits, and service quality. In addition, using different research objects and using a larger number of samples so that the results obtained are more accurate.

The limitation in this study, as the basis of future research, namely regarding the data that is filled in and collected through questionnaires so that we cannot control who is filling in the questionnaire and this creates a potential bias towards respondents' responses. Prizes can also be offered to respondents so they can get more data.

Some research was conducted to test the use of e-wallet payments, there are several studies conducted in Indonesia, Asia and other countries. Therefore, this study and its findings contribute to the intention to use e-wallet literature by developing a new model that can predict one's intention to use e-wallet payment systems in the Jabodetabek region in particular and Asia in general.

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