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Predicting the Relationship of Antecedent Variables of Intention to Use: Empirical Analysis on E-Money Application

Ganesha Triutomo Iswara, Kevin Wialdy, Sabrina Oktaria Sihombing✉

Faculty of Economics and Business, Universitas Pelita Harapan, Tangerang, Indonesia

Abstract

This study aims to predict the relationship of perceived usefulness, perceived ease of use, relative superiority, nature of transactions, and substitution to adoptions that affect intention to use of smart phone-based electronic money. The variables in this study are relative advantages, transaction nature, perceived usefulness, and perceived ease of use, substitution and adoption of electronic money. Data collection techniques in this study were conducted using a questionnaire with judgmental sampling method. The size of the respondents is 142 respondents. The data obtained is analyzed using Structural Equation Modeling (SEM). The results show that the six hypotheses are supported. The intention to use electronic money is also influenced by the adoption of electronic money. The adoption of electronic money is a significant predictor of intention to use electronic money. This study also provides limitations and suggestions for further research.

Memprediksi Hubungan Variabel Anteseden dari Niat untuk Menggunakan: Analisis Empiris pada Aplikasi E-Money

Abstrak

Penelitian ini bertujuan untuk memprediksi hubungan manfaat yang dirasakan, persepsi kemudahan penggunaan, keunggulan relatif, sifat transaksi, dan substitusi terhadap adopsi yang memengaruhi niat untuk menggunakan uang elektronik berbasis ponsel pintar. Variabel dalam penelitian ini adalah keunggulan relatif, sifat transaksi, manfaat yang dirasakan, dan persepsi kemudahan penggunaan, penggantian dan adopsi uang elektronik. Teknik pengumpulan data dalam penelitian ini dilakukan dengan menggunakan kuesioner dengan metode judgmental sampling. Ukuran responden adalah 142 responden. Data tersebut kemudian dianalisis menggunakan Structural Equation Modeling (SEM). Hasil penelitian menunjukkan bahwa enam hipotesis didukung. Niat untuk menggunakan uang elektronik juga dipengaruhi oleh adopsi uang elektronik. Adopsi uang elektronik adalah prediktor signifikan dari niat untuk menggunakan uang elektronik. Penelitian ini memberikan batasan dan saran untuk penelitian lebih lanjut

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INTRODUCTION

At the moment, it is difficult for people to separate from the use of smartphones. Social media is known to give big impact in people's lifestyle, which lead to the efficiency marketing in social media (Chianasta & Wijaya, 2014). The impact of technological advances in Indonesia has made changes in people's habits. Many people seek business opportunities from technological advancements, such as business networks. This type of business relates to both services and products offered by the internet.

The impact of technological advances in Indonesia has made changes in people's habits. Many people see business opportunities from technological advancements, such as business in networks (Utami, 2012). Business in-network is a business activity; both services and products offered by the internet. Business providers of electronic money applications are included in network business because they deliver services through the internet. Now, Indonesian people ask for something practical and fast in their daily activities, especially in payment activities.

Due to demands from the public, payment instruments in Indonesia continue to experience developments from cash payment instruments to non-cash payment instruments. Besides, there are also paperless payment instruments such as electronic transfer funds and payment instruments using cards such as ATMs, credit cards, debit cards, and prepaid cards. Practicality and easiness in making the transactions are the benefits of using electronic money (Ayudya & Wibowo, 2018). The era of cellular payments in Indonesia began in 2007 by T CASH, and OVO was one of the last. However, regulations regarding electronic money providers must submit new licenses circulated by Bank Indonesia. Bank Indonesia regulations concerning electronic money in Article 1 point three state that electronic money is an instrument that fulfills the following elements: issued based on the value of money deposited in advance to the issuer; the value of money is stored electronically on a media server or chip, and the value of electronic money

managed by the issuer is not a deposit as referred to in the Act governing banking. As more and more companies are engaged in the field of electronic money service providers, there are 36 listed companies of electronic money providers that have obtained licenses from Bank Indonesia (Bank Indonesia, 2019). Among them are PT Dompet Anak Bangsa (Gopay), PT Visionet Internasional (OVO Cash), and PT Airpay International Indonesia (SHOPEEPAY).

One of the factors driving the development of the electronic money service industry, because the Indonesian government requires the public to use e-toll or electronic money on for tollgate payments. In addition, Bank Indonesia has launched the National Non-Cash Movement (GNNT) on August 14, 2014, to bring Indonesia towards an era of society without money. This is in order to create an efficient, safe, and fast payment system (Santomero & Seater, 1996). Because this also causes electronic money transactions to increase every year. OVO is one of the newest in the electronic money service provider industry. Still, it can be seen that as one of the new providers of electronic money, the number of OVO users is one of the most even able to pass XL Tunai, which was previously engaged in the industry.

To be able to compete in the industry, electronic money service providers need to know what makes customers intend to use a particular brand. But not many research applied several main variables such as relative excellence, the nature of transactions, and substitutions to predict intention to use e-money application in the smartphone. Precisely, this research replicated the study of Niranjan et al. (2016) that predict the relationship of perceived usefulness, perceived ease of use, relative superiority, nature of transactions, and substitution to adoptions that affect intention to use of smartphone-based electronic money service provider.

The novelty of this research is by exploring the new variables (relative excellence, nature of transactions and substitutions) to predict intention to use e-money applications in smart phone, specifically OVO application in Indonesia.

Hypothesis Development
Relative Advantage and E-Money Adoption

Relative advantage is in the process of innovation diffusion. Specifically, it consists of innovation which communicated through certain channels from time to time and among members of the social system.

Innovation is an idea, practical, or object that is accepted as something new by someone or other adoption units (Rogers, 2003). There are characteristics of innovation that are understood by many people, helping to explain the different levels of adoption, namely relative superiority, compatibility, complexity, ability to test, and monitoring (Rogers, 2003). To adopt innovation, there are five adoption processes. The sequential stages start from awareness, evaluation, evaluation, trial, and adoption.

Previous research shows that relative advantage influences internet-based adoption of information and communication technology (Girsang & Hatammimi, 2014), adoption of cellular banking, adoption of electronic banking services (Ozuru & Opara, 2014), adoption of retail banking services (Thambiah et al., 2010), information adoption of technological innovation (Moghavvemi et al., 2012), adoption of brick installation technology (Ramli et al., 2017), cellular direct message adoption (Mashau, 2016), technology adoption between businesses (Wei & Ismail, 2009), adoption of enterprise resource planning (Ilin et al., 2017), adoption of electronic money (Niranjan et al., 2016). Thus, the following hypothesis is as follow:

H1: There is a positive relationship between relative excellence and the adoption of electronic money.

Transaction Nature and E-Money Adoption

Electronic money has a different nature from electronic payments that have been there before. In mobile banking, internet banking, credit cards and debit cards payments made require an authorization process and are directly related to customers, whereas electronic money is not. That is because electronic money is a stored value product in which a number of monetary values have been recorded in the payment instrument that has been used (Tazkiyyaturrohmah, 2018).

The use of electronic money is more convenient than using cash (in small value transactions), because the customer does not need to have an exact amount of money for the transaction. In addition, electronic money will also affect the financial services industry in the future and be able to reduce obstacles in accessing the financial services industry. The use of electronic money as an alternative to non-cash payment means that there is considerable potential to reduce the growth rate of cash usage. Electronic money also offers faster and more convenient transactions compared to cash, especially for small value transactions.

The security and speed of this transaction is certainly a commodity that is needed and effective enough for the creation of a society without cash, which is a society that uses minimal payment transactions in cash, this is indicated by the increasing number of trading centers and various types of companies that accept non cash payments (Tazkiyyaturrohmah, 2018). Transaction nature is one of the primary considerations in using wallet solutions, Kosse and Vermeulen (2014) have observed that wallet applications are generally used only for small transactions. Mireya (2014) states that the resolution of pricing and transaction costs has an essential role in adopting wallet solutions.

Previous research shows that the nature of transactions influences the adoption of electronic money (Kosse & Vermeulen, 2013; Niranjan et al., 2016), mobile money adoption (Mas & Almazan, 2014), adoption of non-cash payments (Vila-Ruiz and Mahatanankoon, 2007; Mantel, 2000). Therefore, it is hypothesized that:

H2: There is a positive relationship between the nature of transactions and the adoption of electronic money.

Perceived Usefulness and E-Money Adoption

The perceived usefulness is the degree to which a person believes that using a system will

improve his work performance (Davis, 1989). Perceived usefulness & perceived ease of use both serve as mediators between the first four of five factors in using intention (Lee et al., 2012). Another definition of perceived usefulness is the subjective possibility of prospective users using certain application systems that will improve the performance of their work in an organizational context (Akturan & Tezcan, 2012). Meanwhile, according to Lee (2009) the perceived usefulness reflects a person's prominent belief in the use of technology that will help in improving their performance. The perceived usefulness is the extent to which individuals believe that electronic money users will improve their performance and daily activities (Wei et al., 2009). Perceived usefulness as the degree to which users believe that using a particular application system will improve their performance in certain contexts (Akturan & Tezcan, 2012). Thus if someone feels that the information system is useful or useful, he will use it. Conversely, if someone feels that the information system is less useful or useful then he will not use it (Agamitte, 2017).

From the explanation of the perceived usefulness of the previous researchers, it can be concluded that the perceived usefulness is the degree to which a person believes that the cellular application being used frees him from effort and user friendliness. If the user believes that the information system can be easily used, he will use it (Agamitte, 2017). In relating with electronic money, someone will use electronic money if the person believes that electronic money can provide benefits in carrying out tasks or work. Therefore, the level of perception of the benefits of electronic money affects consumers to use the electronic money application (Fadhli & Fachruddin, 2016).

Previous research has shown that perceived usefulness influences internet banking adoption (Noviarni, 2017), electronic banking adoption (Salimon et al., 2016), information adoption (Cheung et al., 2008), cellular trade adoption (Nassuora, 2013), adoption of elec-

tronic money (Niranjan et al., 2016), adoption of electronic payments (Roy & Sinha, 2017), adoption of an automated trading recommendation system (Gan et al., 2018), adoption of cloud computing (Gangwar & Date, 2016), adoption of product recommendation agents (Qiu & Benbasat, 2010). Therefore, it is crucial to link perceived usefulness to the research model. Based on the above discussion, the following hypothesis is stated as follow:

H3: There is a positive relationship between perceived usefulness and the adoption of electronic money.

Perceived Ease of Use dan E-Money Adoption

Perceived ease of use is the degree to which a person believes that using a system will free them from effort (Davis, 1989). Perception of ease of use and usability are important factors that influence individual acceptance of new information systems or technologies (Noviarni, 2017). If the user feels that the information system can be easily used, they will use it (Agamitte, 2017).

Previous research shows that perceived ease of use is a significant factor that influences adoption of internet banking (Johnson & Marakas, 2000; Poon, 2008; Noviarni, 2017), adoption of cellular banking (Harridge et al., 2008; Chavali & Kumar, 2008), mobile trade adoption (Wei et al., 2009; Kim & Garrison, 2009; Nassuora, 2013), adoption of brick installation technology (Ramli et al., 2017), and adoption of electronic payments (Roy & Sinha, 2017). Therefore, it is essential to include the perceived ease of use in this research model. Then, it can be stated that:

H4: There is a positive relationship between perceived ease of use and adoption of electronic money.

Substitution and E-Money Adoption

Substitution is goods that can be used to replace other goods (Parkin, 2014). Substitution is the impact of changes in the prices of related goods, where the prices of related goods are

the main factors that make changes in demand. For example, taking a bus can be replaced by taking a train. If the price of a bus ticket goes up, people will take fewer buses and prefer to take the train.

The substitution effect is the impact of price changes on the amount of goods purchased when the customer does not change from the original situation and the new situation (Parkin, 2014). Substitution has an influence which is interpreted when there is a price increase, consumers (whose income remains the same) will tend to buy more goods at relatively lower prices and cheaper than goods at higher prices (Brewer and Cole, 2013).Fujiki and Tanaka's study (2009) states that there is a significant effect of replacement of electronic money, due to the higher net benefits of electronic money, so that people will be more likely to adopt electronic money. Previous research shows that substitution influences the adoption of electronic money (Fujiki & Tanaka, 2009; Pope, 2011; Rowland, 2013; Niranjan et al., 2016), adoption of cellular payments (Khiaonarong, 2014). Hypothesis proposed for the present study is:

H5:   There is a positive relationship between substitution and adoption of electronic money.

E-Money Adoption and Intention To Use E-Money

Intention is a push, a strong internal stimulus that motivates action, where this drive is influenced by stimulus and positive feelings about the product (Kotler, 2010). There is positive relationship between students attitude to intention to use banking services (Alqasa et al., 2014). If we can find out the reasons behind the behavior of people who use electronic money, then policy makers, publishers of electronic money, and traders can develop strategies to increase the use of electronic money (Ayudya & Wibowo, 2018).

Miliani et al. (2013) have tested that there is no influence between being adopted and not adopting on risk and security, while there is an influence on the intention to use or reuse. Previous research showed that adoption affected green buying intentions (Rahim et al., 2015), intention to buy (Erkan & Evans, 2016; Erkan, 2016), intention to use e-money (Niranjan et al., 2016). Therefore, it is hypothesized that:

H6:   There is a positive relationship between electronic money adoption and the intention to use electronic money.

METHOD

Research Instrument

All indicators obtained are based on previous research. The relative advantage variable has indicators taken from Sugandini (2009). Furthermore, the transaction nature variable has an indicator taken from the research of Niranjan et al. (2016). Perceived usefulness variables have indicators taken from Davis (1989). Also, perceived ease of use variables have indicators taken from Davis (1989) and Ma'ruf (2016); substitution variables have indicators taken from the research of Niranjan et al. (2016). The variable adoption of electronic money applications has indicators taken from previous research (Rizky, 2017; Boehmke, 2009; Pane, 2014); intention variable to use has indicators taken from the research (Pratiwi, 2016; Widiatmika & Sensuse, 2012). All indicators are measured using a 5-point Likert switch. Point 1 = "strongly disagree", point 3 = "neutral", point 5 = "strongly agree".

Sampling Design and Sample Size

In this study, researchers chose to use the judgment sampling method. In this study the samples taken were people living in the Jakarta and Tangerang area who owned and used the OVO electronic money application in daily payments activities.

This research used 168 respondents. There are three reasons why researchers use these samples. First, because of the total mean of the previous research similar to this study, a number of 168.2 was rounded up to 168. Table 1 shows

the previous researchers and the number of samples used.

Table 1. Previous Research and Sample Size

Reseacher (year)	Total Sample
Pradipta and Agus (2013)	150
Kurniawati ey al. (2017)	120
Simatupang (2017)	210
Lean et al. (2009)	195
Pratiwi (2016)	142
Putri and Suprati (2016)	100
Muslichah (2015)	160
Mwiya et al. (2017)	222
Miliani et al. (2013)	143
Nioranjan et al. (2016)	204
Mean	168

The second reason is that according to Hair et al. (2014), the number of samples is between 5 and 10 times higher than the number of indicator variables. In this study there were 28 indicators. However, after testing the preliminary research, the indicator remained 28. Therefore, when multiplied by 6 to 168, the number matched the mean obtained from previous research. The third reason, the number of samples for SEM analysis ranged from 100 to 200 samples (Wolf et al., 2013). Furthermore, Wolf et al. (2013) pointed out that the use of sample 100 and above is in accordance with the rule of thumb.

Reliability and Validity Tests

Better use of instruments will ensure greater accuracy in results. Therefore, it is necessary to assess the "goodness" of the measurements developed (Sekaran & Bougie, 2016). At the stage of testing the goodness of measurement, it may verify the reliability and validity of measurements. Consistency is the key to understanding reliability (Zikmund

et al., 2011). Therefore this study complies internal consistency reliability testing, namely Cronbach's alpha. There are three main reasons why this study involved the Cronbach's alpha reliability. The first reason is the reliability of the sum of the best measurement scales is to use Cronbach's alpha (Hair et al., 2014).

Second, the most commonly used reliability testing technique is Cronbach's alpha (Bryman & Bell, 2007). Cronbach's alpha is used most often because it has the advantage of providing a unique estimate of internal consistency or reliability of the scale, rather than just being a distance from the possibility of authenticity (Johnson, 2018). Finally, still in Johnson (2018), using Cronbach's alpha eliminates problems related to longitudinal design (such as test-retest reliability or parallel form reliability), such as history and test effects, because all measurements are completed in only one time period. In testing the Cronbach's alpha coefficient this study uses a measure limit that is 0.6, and the threshold for corrected item-total correlation is 0.3 (Hair et al., 2014). After testing the reliability, validity test instrument from the measurement is established (Sekaran & Bougie, 2016).

Validity is a test of how well the instrument developed measures the particular concept that you want to measure (Sekaran & Bougie, 2016). This study applied a construct validity test with two main reasons. First, construct validity is conducted to find out whether the instrument can measure what should be measured which makes contract validity the core of overall efficacy (Shaughnessy et al., 2012). Second, construct validity aims to measure whether indicators have a high correlation with a theoretical concept (Sekaran & Bougie, 2016).

This study applied exploratory factor analysis (EFA) to test the validity of convergence. According to Ghozali and Latan (2015), the validity of convergent by using EFA is measured by looking at the loading factor value of each indicator. An indicator is

said to fulfill the convergent validity if in the sample size of 100 or more respondents, the loading factor is above 0.55. Moreover, discriminant validity will be achieved if the correlation limit is < 1 (Fornell & Larcker, 1981; Hair et al., 2014). Therefore, this study uses a loading factor limit of 0.55 for convergent validity and uses the Pearson correlation limit below 1 to prove that the discriminant validity test is achieved.

Data Analysis

Structural Equation Modeling (SEM) is a method of statistical analysis to describe the relationship model between variables (Hoyle, 2011). This study used SEM approach. There are three main reasons underlying the use of SEM. First, SEM has the ability to estimate the relationship between variables that are of a dual. This relationship is formed in a structural model (the relationship between independent and dependent constructs). Second, SEM has the ability to describe patterns of relationships between latent constructs and manifest variables. Finally, this study has mediating variables. Research with mediating variables is appropriate with the use of SEM testing (Schumacker & Lomax, 2015).

RESULT AND DISCUSSION

Respondent's Profile

On this study 168 questionnaires was distributed. Out of the 168 questionnaires distributed, 156 questionnaires were returned by respondents. This number represents a response rate of 92.68%. Out of the 156 questionnaires returned by respondents, 142 questionnaires can be used to analyze data. This amount represents usable response rate of 91.03%.

Table 2 shows that almost all respondents are in the age between 18 to 30 years old. More than a half of respondents are male. Furthermore, more than a half of respondents are students with last education of high school degree.

Hypothesis Testing.

In testing using SEM, it is necessary to test measurements model and test structural models.

Table 2. Respondent Profiles

Characteristics	Categories	Total (%)
Age	Less than 18 years old	2 (1.4%)
	18 to 30 years old	129 (90.8%)
	More than 30 years old	11 (7.7%)
Gender	Male	92 (64.8%)
	Female	50 (35.2%)
Occupation	None	5 (3.5%)
	Students	91 (64.1%)
	Entrepreneur	19 (13.4%)
	Employee	22 (15.5%)
	Others	5 (3.5%)
Income per month	Less than 3 million rupiah	30 (21.1%)
	3 to 10 million rupiah	93 (65.5%)
	More than 10 million rupiah	19 (13.4%)
Last education	High school	80 (56.3%)
	Bachelor degree	52 (36.6%)
	Master degree	4 (2.8%)
	Others	6 (4.2%)

Source: data analysis (2019)

Table 3. Hypotheses Testing Results

Hyphotesis	Variable Relationship	Standardized Regression Weights	CR/ t$_{hitung}$	P-value	Conclusion
H$_1$	Relative advantage -> E-money adoption	.195	2.473	.013	Supported
H$_2$	Transaction nature -> E-money adoption	.192	2.551	.011	Supported
H$_3$	Perceived usefulness -> E-money adoption	.216	2.124	.034	Supported
H$_4$	Perceived ease of use -> E-money adoption	.226	2.103	.035	Supported
H$_5$	Substitution -> E-money adoption	.181	2.314	.021	Supported
H$_6$	E-money adoption -> Intention to use	.898	12.933	.000	Supported

Measurement model testing was carried out by confirmatory factor analysis (CFA). The result shows the good fit of the model (GFI=0.828; CFI=0.977; RMSEA=0.048; CMIN/DF=1.323). After conducting the CFA, the next step is testing the structural model (Table 3). A hypothesis will be supported if there is a significant relationship having a critical value of ± 1.96, and a p value of ≤ 0.05. The result also shows the good fit of the model (GFI=0.835; CFI=0.982; RMSEA=0.043; CMIN/DF=1.256).

Discussion

Based on the results of hypothesis testing that has been done through the processing of actual research data of 142 respondents indicate that all hypotheses are supported. Hypothesis 1 states that there is a positive relationship between relative superiority and adoption of electronic money. The more relative benefits of innovation are felt to increase, the faster adoption will occur (Rogers, 2003). The reason why this hypothesis is supported is because the better the relative advantages that electronic money has, the faster customers will adopt electronic money. This hypothesis is supported in accordance with previous research where the advantages are relatively related to adoption (Harridge et al., 2008; Wei & Ismail, 2009; Thambiah et al., 2010; Moghavveni et al., 2012; Ozuru & Opara, 2014; Girsang & Hatammimi, 2014; Mashau, 2016; Niranjan et al., 2016; Ilin et al., 2017; Ramli et al., 2017; Chavali & Kumar, 2018)

which states that relative excellence is an antecedent of adoption and that both constructs must positively associate with each other.

Hypothesis 2 shows a positive relationship between the nature of transactions and adoption of electronic money. This result shows that there is an influence between the nature of the transaction and the adoption of electronic money, if the nature of the transaction is positive then the customer will adopt. The reason why this hypothesis is supported is because the more positive the nature of the transaction, the customer will adopt electronic money. This hypothesis is supported by previous research (Mantel, 2000; Vila-Ruizb & Mahatanankoona, 2007; Mas, 2011; Kosse & Vermeulen, 2014; Mas & Almazan, 2014; Niranjan et al., 2016).

Hypothesis 3 states that there is a positive relationship between perceived usefulness with the adoption of electronic money. Someone will use electronic money if the person believes that electronic money can provide benefits in carrying out tasks or work. Therefore, the level of perception of the benefits of electronic money affects consumers to use the electronic money application (Fadhli & Fachruddin, 2016).

The reason why this hypothesis is supported can be seen from descriptive statistical data. From the variable indicators of perceived usefulness and adoption of electronic money. The second reason, because the more customers feel the use of electronic money, the customer will adopt electronic money. Furthermore, pre-

vious research shows that perceived ease of use is a significant factor that influences the adoption (Johnson & Marakas, 2000; Harridge, 2008; Poon, 2008; Kim & Garrison, 2009; Wei et al., 2009; Qiu & Bensabat, 2010; Nassuora, 2013; Gangwar & Date, 2016; Noviarni, 2017; Ramli et al., 2017; Roy & Sinha, 2017; Chavali & Kumar, 2018; Gan et al., 2018).

Hypothesis 4 shows that there is a positive relationship between perceived ease of use and adoption of electronic money. If the user feels that the information system can be easily used, he will use it (Agamitte, 2017). There are several reasons why this hypothesis is supported. The first reason is because the easier the electronic money system is easy to use, the more customers will adopt electronic money. The second reason why this fourth hypothesis is supported is from the results of descriptive statistics showing respondents answering the variable indicators of ease of use perceived by the "agree" answer. Similarly, the answer to the indicator of electronic money adoption is "agree". This hypothesis is also supported by previous studies such as (Johnson & Marakas, 2000; Harridge et al., 2008; Kim & Garrison, 2009; Wei et al., 2009; Nassuora, 2013; Noviarni, 2017; Poon, 2018; Ramli et al., 2017; Roy & Sinha, 2017; Chavali & Kumar, 2018).

Hypothesis 5 states that there is a positive relationship between substitution and adoption of electronic money. There is a significant effect of substitution of electronic money, because the net benefits of electronic money are higher, so people will be more likely to adopt electronic money (Fujiki & Tanaka, 2009). There are two reasons why this hypothesis is supported. The first reason is that customers feel that electronic money can be used to replace or substitute existing payment instruments so that they will adopt electronic money. The second reason can be seen from the statistical data, namely the indicators of the substitution variable and adoption of electronic money on average answer "agree". The existence of a significant relationship between substitution and adoption of electronic money is supported by previous studies, namely

the work of (Fujiki & Tanaka, 2009; Pope, 2011; Rowland, 2013; Khiaonarong, 2014; Niranjan et al., 2016).

Hypothesis 6 shows that there is a positive relationship between electronic money adoption and the intention to use electronic money. These results indicate that there is an influence between the adoption of electronic money and the intention to use electronic money, the more customers who adopt electronic money, the higher the intention to use electronic money. There are two reasons why this hypothesis is supported. The first reason is that customers who adopt electronic money have intention to use or intention to use high. The second reason can be seen from descriptive statistical data, respondents on average answer "agree" to the indicators of the variable electronic money adoption and intention to use. Therefore the last hypothesis in this study is supported. This hypothesis is supported by previous research, which belongs to (Rahim et al., 2015; Erkan & Evans, 2016; Erkan, 2016).

CONCLUSION AND RECOMMENDATION

After analyzing this study, this study can provide theoretical implications based on the results of this study. The results of this study prove that there is a positive relationship between superiority relative to the adoption of electronic money, there is a positive relationship between the nature of transactions to electronic money adoption, there is a positive relationship between the usefulness of electronic money adoption, there is a positive relationship between the ease of use felt on adoption electronic money, there is a positive relationship between substitution of adoption of electronic money and there is a positive relationship between the adoption of electronic money and the intention to use electronic money.

There are several things that need to be considered by OVO electronic money application service providers. First, relative advantages of OVO applications need to be improved by increasing speed, comfort, convenience, and

profit compared to using cash or debit cards. Second, improving the properties of the transaction, such as increasing the transaction nominal, speeding up transactions, making transactions simpler, and increasing the security of transactions using OVO. Third, OVO needs to make consumers feel that OVO is easy to use, therefore consumers will feel the use of ovo is easy to remember, easy to understand, practical and flexible. Fourth, OVO needs to pay attention to whether the electronic money application can replace debit cards, replace cash, replace existing money transfer methods and replace existing spending methods. Last, OVO needs to ensure that its customers use the application, their customers use OVO shortly after knowing it, their customers actively use OVO in payments and their customers use more than one feature available on the OVO application. This is done to increase the intention to use the OVO application.

Based on the results and discussion conducted in the previous chapter, it can be concluded that all the hypotheses in this study are supported, that all of the variables have positive relationship with electronic money adoption. However, there are some limitations in this research, they are lack of review of the literature on the variables (nature of transactions and substitutions) used in this study; the object used is OVO, there it cannot represent the entire electronic money application; small number of sample used (168); the research target is only resident in Jakarta and Tangerang, while in the questionnaire there is no respondents' domicile in the questions; and the used of non-probability sampling method. Based on these constraints, future research can be completed by expanding the object of electronic money and the areas of the study, and generalize to a large number of subject groups.

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