Description of Perceived of Usefulness and Continuance Intention in Users of Electronic Money Cards in Indonesia

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ABSTRACT

To find out the description of the level of perceived of usefulness and continuance intention in electronic money card user Indonesia. The design of this study is cross sectional method. This research uses descriptive approach with explanatory survey method. A total of 400 respondents were selected using probability sampling. A questionnaire was used as a research instrument to collect data from respondents. The analysis technique used is descriptive technique by using frequency distribution. The result showed that both of perceived of usefulness and continuance intention are in good category. The differences in this study located on an object research, time research , a measuring instrument , literature that used , the theory that is used and the results of the study.

Keywords: perceived of usefulness, continuance intention, e-money card.

1. INTRODUCTION

Money has a very big function in everyday life. Like the function of money as a means of payment in economic transactions, money is inseparable from the process of economic transactions in each country. Money can also be said to be an important indicator in the economy of a country. This is caused by all economic activities, namely, production, distribution and consumption closely related to money [1].

Rapid technological developments have an impact on people's lives. One of them is a change in the payment scheme through means of payment in cash (banknotes and metals) into a non-cash payment instrument, including credit cards, ATM cards and debit cards. Non-cash payment instruments are increasingly commonly used by the public and always innovate according to the times. At present, non-cash payment instruments innovate with the creation of electronic money or commonly called e-money [2].

Electronic money was first introduced in 1993 by [3] with a DigiCash base that aims to support the electronic payment system . After the discovery was born, the United States became the first country to use this system as a result of cooperation with American Mark Twain Bank as the Bank that first popularized Digital Cash (Digicash) with results making Digicash used at 90% of the overall in 1994 [4].

Electronic money is basically the same as money because it has a function as a means of payment for goods sale and purchase transactions. In Indonesia, electronic money has been introduced to the public with two types of product choices in 2007, which are chip based and server based (Bank Indonesia, 2013).
However, products with chip-based types cannot be used throughout Indonesia and are only limited in large cities. This is based on the consideration of the territory of Indonesia which has the largest number of islands in the world, server-based electronic money products on mobile phones are easier to reach people to remote locations. This is also supported by the fact that Indonesia is the second largest mobile user in Asia and the fourth in the world (Central Intelligence Agency, 2012).

Based on the Bank for International Settlements, electronic money is defined as a "store-value" or "prepaid" product where records of funds or values available to consumers are stored on electronic devices. The existence of electronic money can facilitate payment transactions with all the features they have. Users can use electronic money at merchants who have collaborated with the issuer of electronic money in question easily, quickly and practically

Transactions using electronic money have many advantages, including: (1) practical, which is enough to carry a card that has a certain rupiah value, (2) is safe, does not need to carry cash, (3) is easy, because it only attaches cards to Electronic Data Capture machines (EDC) for transactions and can be used for retail transactions with small value. The use of electronic money can provide a number of benefits for its users [5].

For the public or consumers, it further minimizes the use of small-value currency, making it easier to make transactions, without having to provide such money in a pocket or wallet. While for service providers, no longer have to provide small money for change and the transaction process can be done faster. Whereas, for Bank Indonesia as the authority responsible for providing cash, it is no longer burdened with efforts to provide currency that is of considerable value [6].

The following is the volume of electronic money transactions in the 2015-2017 period as shown in Table 1

| Table 1. Number of Electronic Money Transaction Volumes Used by Indonesian Communities in 2015-2017 |
|---------------------------------------------------------------|
| **Transaction Type** | **Transaction Volume** | **June-2015** | **June-2016** | **June-2017** |
|--------------------|------------------------|---------------|---------------|---------------|
| Debit Card         |                        | 379,369,141   | 447,305,293   | 495,129,624   |
| Credit Card        |                        | 24,440,007    | 25,794,701    | 26,466,534    |
| e-Money            |                        | 59,724,050    | 54,614,849    | 51,960,836    |

Based on BI data, electronic money transactions recorded a decline. Transaction value fell 15% to IDR 561.86 billion as of July 2016 compared to July 2015 position of IDR 665.75 billion. Meanwhile, transaction volume fell 15.51% to 49.65 million as of July 2016 from the same period last year of 58.74 million [7]. The low number of electronic money users is partly due to a lack of technology to support electronic money, many people still do not know about the ease of use of electronic money and culture, people who are still happy to do transactions with cash (Nuryati, 2014). Although users continue to grow, the number and value of transactions have not reached a significant number. Based on the results of the 2016 Sharing Vision Telematics Research Institute survey, the difficulty of finding a top up place is the main obstacle in using e-money (economy.okezone.com, 3 September 2017).

Even though there are many benefits that can be felt by the community, industry and government (central bank) if they optimize the use of electronic money. For the community, the presence of electronic money is a fast and safe instrument of daily transaction payments. In addition, electronic money can facilitate the public in completing payment transactions. [2]. The nominal electronic money transaction experienced a decline amid the incessant call for a cashless society, based on information from the Indonesian Banking Statistic issued by the Financial Services Authority (OJK), the nominal electronic money transaction as of August 2017 was valued at Rp790.69 billion. This value dropped 30.73% compared to the previous month. This decline is an anomaly, because electronic money transactions tend to increase every time since it was introduced to the public in 2007 [8].

Compared to ASEAN countries, the use of electronic-based payment transactions carried out by Indonesian people is still relatively low, while with geographic conditions and a large population, there is still considerable potential for expanding access to payment system services in Indonesia. For this reason, Bank Indonesia and banks as the main players in providing payment system services to the public need to have the same vision and strong commitment to encourage the use of non-cash transactions by the community in realizing the LCS [9].

Low intentions for using electronic payment transaction tools also occurred in Indonesia, although growth and penetration of e-money users were still considered low. Although users continue to grow, the number and value of transactions have not reached a significant number. Based on the results of the 2016 Sharing Vision Telematics Research Institute survey, the difficulty of finding a top up place is the main obstacle in using e-money

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E-money-based payment system transactions in Indonesia are still dominated by debit payments of around 35%, followed by payers with a 33% credit card / debit card system, and electronic money payment systems only used by around 14% of Indonesian people, followed by invoice users. 10%, 6% prepaid credit card / gift card and the latest NFC payment system with 1% users.

Through the following table 2, we will present data on the comparison of e-money chip based on the 3 biggest brands in Indonesia.

**Table 2. Comparison of E-Money Chip Based 3 in Indonesia**

| Comparatives Aspects | FLAZZ BCA | E-MONEY MANDRI | BRIZZI BRI |
|-----------------------|-----------|---------------|------------|
| Number of transactions (2016) | 80 million transactions | 264.9 million transactions | 2.21 million transactions |
| Transaction volume (2016) | 500 Billion | 2.54 Trillion | 22 Billion |
| Service access at Jasamarga Toll Road | 22 toll road segments based on special mark | 34 toll road (In all Jasamarga toll road that is used now) | 14 toll road Jasamarga with special mark |
| Access to service at the Mini Market (Indomaret & Alfamart) | All of the Indomaret and Alfamart | All of the Indomaret and Alfamart with special marks | All of the Indomaret and Alfamart with special marks |
| Access to mass transportations services (Commuter Line, Transjakarta Batik Solo and others) | Serving all JABODETA BEK and TransJakarta Commuter Line accesses | Serving all JABODETA BEK and TransJakarta TransJogja, Batik Solo Trans Commuter Line accesses | Serving all JABODETA BEK and TransJakarta Commuter Line accesses |
| Access Top-Up service (Refill) | BCA Non-Cash ATMs and the entire Indomaret and Alfamart networks | Non-cash Mandiri ATMs and special mark Indomaret and Alfamart networks | BRI non-cash ATMs and special mark Indomaret and Alfamart networks |
| Balance Terms | 50.000-1 Milion | 20.000-1 Milion | 0-1 Milion |

The purpose of this study are: (1) To obtain an overview of the level of perceived of usefulness and (2) To obtain an overview of continuance intention levels.

Consumer behavior in using a product leads to the final buying behavior, namely buying goods and services for personal consumption. All the final results of this purchase are combined and become a consumer market. The American Consumer Market reveals that more than 314 billion people consume more than $ 15 trillion dollars in value for goods and services each year, and make it an attractive consumer market worldwide.

Continuance intention theory describes sustainable use or repurchase behavior after adopting a technology (Battacherjee, 2001). Continuance intention and recontinuance intention leads to the same concept (Battacherjee, 2001; Limayem, Hirt & Cheung, 2007). Battacherjee (2001) introducing a model namely Information System Model (IS) Continuance which was...
adapted from the Expectation Confirmation Theory (ECT) derived from marketing science. Information System Model (IS) aims to explain how behavior after using a technology. The model assumes that the success of the IS model depends on the use of usage rather than the first time and the current Acceptance Model has limitations in explaining evidence or even contradicting observing usage behavior reset it (Bhattacherjee, 2001, p. 352).

According to Davis in Teng and Chen (2010), continuance intention is defined as an interest or desire of an individual to continue to use a system. Next according to Bhattacherjee (2011) continuance intention is defined as an interest to continue to adapt or take part in a particular system

The dimensions of continuance intention used in this study are based on the opinion of Michael Ealsey, 2009 which reveals that the continuance intention dimension consists of using it regularly in the future, using it in the future and suggesting it to others. Meanwhile research by Anderson and Sullivan in Hung and Hsu (2011), dimensions of continuance intention include:

**Possibility of Repurchase:** Possibility of repurchase refers to the possibility of repeated use of certain services. In this study, continuance intention can be reflected in the possibility of reuse and the thought of reusing a service.

**Times of Repurchase:** The Times of repurchase refers to the interest in using a system and the possibility to make purchases using the e-money chip based system

With the existence of an electronic payment system using electronic money, many benefits are felt. In the case studies of Transjakarta and Commuter Line e-ticketing in Jabodetabek, consumers do not have to bother lining up to buy tickets but just tap and go, so the payment time becomes much shorter and more efficient. For providers (Transjakarta and Jabodetabek Line Commuter), there is no need to use paper tickets and all transactions are properly recorded in the database so that they are more transparent, accountable and accurate. For e-money winners, the money deposited on the card can be utilized. This construct has been determined as the strongest determinant of consumer interest behavior, these individuals will tend to repurchase more frequently if media perceptions such as the website used can improve performance and help consumers in decision making [18].

As a belief, the Perceived of Usefulness has been consistently demonstrated by the influence on user interest across the IS usage level (Davis, 1989; Karahanna et al., 1999). More specifically, this explains the positive influence of adoption intention (Chang et al., 2014; Thong et al., 2006; Venkatesh, 2000), continuance use intention (Agarwal and Karahanna 2000; Bhattacherjee, 2001; Bhattacherjee and Premkumar, 2004), satisfaction (Bhattacherjee, 2001; Limayem et al., 2007) and attitude (Bhattacherjee and Hikmet, 2008). As a social interface, users suspect that MIM is used to facilitate interaction with family, friends and coworkers (Ajjan et al., 2014; Ha et al., 2015). They hope MIM is used to erase differences in time and space for instant connections (Ha et al., 2015). Perceived of Usefulness dan perceived ease of use (PEOU) positioned as a basic point for technology acceptance (Lee, 2010). Many empirical studies in TAM testing have different contexts, and the relationship between Perceived of Usefulness and perceived ease of use as direct links with behavioral intention have been found. Previous studies have identified Perceived of Usefulness and perceived ease of use as factors that have a direct relationship to the user's continuance intention by using this new system. The number of figures found in previous studies has a significant effect.

Several previous studies have shown that the perception of benefits has a positive effect on continuance intention of electronic money, including Rahmatsyah (2011), [17], Sari (2012), Candraditya (2013), Miliani (2013), dan Halim (2014). In other words, the perception of benefits has a big influence on interest, because it is considered the mostable to explain the benefits of this electronic money service.

In other words, the perception of benefits is a big influence on interest, because it is considered to be the most effective means of electronic money service. (David, Bagozzi, & Warshaw 1989). According to Davis (1989), Benefit perception is defined as a person's level of trust that using a particular system will improve performance. According to the definition of useful "able to be used profitably". A system that has a high level of Perceived of Usefulness can increase trust in a sustainable relationship from a positive performance relationship. Someone will evaluate the consequences of their behavior and make choices based on perceptions of usefulness (Kim, Chan, & Gupta, 2007). Rahmatsyah (2011) interpreting the perception of usefulness as the subjective probability of potential users who use a particular application to facilitate performance on their work

The perception dimensions of system benefits for wearers according to Davis et al (1986), namely, productivity (job), job performance, effectiveness (effectiveness), importance to job (importance for tasks) and overall usefulness (overall usefulness) while Other researchers revealed that the dimensions of perceived of usefulness consisted of performance, ease of selection, ease of payment process, nominal amount accuracy, efficiency, productivity, ease of work and quality of life.
2. METHODS

This study was conducted to analyze the perceived usefulness and continuance intention of electronic money card users in Indonesia. The independent variable (independent variable) or exogenous variables contained in this study is Perceived of Usefulness with dimensions consisting of performance, ease of selection, ease of payment processing, accuracy of nominal amounts, efficiency, productivity, ease of work and quality of life, while the dependent variable variable) is continuance intention with dimensions consisting of periodically using in the future, using in the future and suggesting to others.

The object / unit of analysis in this research is electronic money card users in Indonesia. This research was conducted in less than one year, so the method used was cross sectional. The cross sectional research method is a method in which data is collected only once in a certain period of time, perhaps for several days, weeks or months, to answer research questions (Sekaran, 2003), so this research is often called a one-shot study or one snapshot (Hermawan). , 2006).

The data used in this study consisted of primary data and secondary data. Primary data is data that is collected directly by researchers to answer problems or research objectives. Secondary data is a historical data structure regarding variables that have been previously collected and compiled by other parties (Hermawan, 2006).

The population in this study is a total of 26,000,000 active e-money users in Indonesia from the 3 biggest brands. The sampling technique used in this study is a non-probability sampling technique with a sample size of 400 respondents. The data collection techniques used were literature study, field study by distributing questionnaires, and literature study. While the data analysis technique used is descriptive analysis using frequency distribution.

The research tool used in this study is a questionnaire that is structured based on the variables contained in the research data, which provides information about perceived usefulness and continuance intention. Processing the data collected from the questionnaire results can be grouped into three steps, namely preparation, tabulation and application of data in the research approach.

To categorize the calculation results, the percentage interpretation criteria were used, which were taken from 0% to 100%. After categorizing the calculation results based on the interpretation criteria, a continuum line was drawn which was divided into five levels including such as very high, high, medium, low and very low. This continuum line was made to compare each total score of each variable to obtain an overview of the continuance intention (Y) variable and the variable perceived of usefulness (X).

3. RESULT AND DISCUSSION

3.1. The Describing of Perceived of Usefulness

The variable perceived of usefulness consists of eight dimensions with 8 indicators. Perceived of usefulness dimensions consist of performance, ease of selection, ease of payment processing, accuracy of nominal amounts, efficiency, productivity, ease of work and quality of life. The results of data processing regarding the perceived of usefulness variable category are shown in fig. 1.

![Figure 1. Perceived continuum line of usefulnesss](image)

Source : The result of data processing, 2018

Based on the results of the research questionnaire that was distributed to 400 respondents, it can be seen that the use of electronic money cards in Indonesia got a score of 18,372 or 82.02%, from the ideal score of 22,400. The achievement of these scores was continually in the good category with intervals between 16,914.29 and 19,657.14. By doing so, it means that the level was considered useful in the use of electronic money cards in Indonesia that has shown the expected performance even though it is considered to be maximum. Furthermore, the user's perception of the benefits offered by electronic money cards was good and they realized the need based on table 3.

| No | Aspects                        | Total Score | Percentase % |
|----|--------------------------------|-------------|--------------|
| 1  | Performance                    | 2304        | 13.09        |
| 2  | The Ease of Selection          | 2278        | 12.40        |
| 3  | The Ease of Payment Process    | 2293        | 12.51        |
| 4  | The Amount accuracy            | 2213        | 12.05        |
| 5  | Efficiency                     | 2356        | 12.82        |
| 6  | Productivity                   | 2265        | 12.33        |
| 7  | Facilitating the work          | 2272        | 12.31        |
| 8  | Quality of Life                | 2286        | 12.44        |
| Total |                                | 18372       | 100%         |

Source : The result of data processing, 2018

Based on table 3 the results of data processing that had been carried out through the distribution of instruments to 400 electronic money card (e-money) users stated that if the percentage of the highest score was in the performance dimension of 13.09%. It was indicated that consumer perceptions of electronic money card products were the most a lot because of its performance aspect. The lowest score was obtained for...
the nominal amount accuracy dimension with a percentage of 12.05%.

It is accordance with previous research which suggests that the perceived usefulness of a product was influenced by the performance shown by the product and the performance that would be generated by its users [17].

Performance involved how much performance was shown by a product as well as what kind of performance will happen when someone uses the product [19]. In terms of using electronic money cards, users perceived that e-money cards improved their performance at work as an indicator of an assessment of the performance dimensions in this study.

For per-item research results processing, the highest score was found in the e-money card statement item increasing my performance at work by 2404 or 86.86% of the ideal score, while the lowest score was found in the item statement of nominal accuracy in transactions at toll booths with using an e-money card of 2213 or 79.04%.

3.2. The Describing of Continuance Intention

The continuance intention variable consisted of three dimensions with 3 indicators. Besides, the continuance intention dimension consists of using periodically in the future, and suggesting to others. The results of data processing regarding the category of continuance intention variables were shown in fig. 2.

| Source: The result of data processing, 2018 |
|---------------------------------------------|
| Table 4. Recapitulation of Customer Responses Regarding Continuance Intention |
| No | Dimension                  | Total score | Persentasion% |
|----|----------------------------|-------------|---------------|
| 2  | Use in the Future          | 2349        | 32.30         |
| 3  | Advise Others              | 2379        | 34.17         |
| Total|                            | 6963        | 100 %         |

Based on table 4, it can be seen that the results of data processing that had been carried out through the distribution of instruments to 400 electronic money card (e-money) users showed that if the percentage of the highest score was in the Suggest to others dimension of 34.17%. It was indicated that consumer commitment to reuse an electronic money card product is indicated by their desire to recommend the product to others. The lowest score was obtained for the dimension Using in the future with a percentage of 32.30%.

Continuance intention has an impact on consumer loyalty, consumer commitment, brand expansion, and a company’s business performance [21].

Based on the data obtained through the research results, namely the calculation based on the indicators used, the highest score obtained was in the statement item. I would like to suggest chip-based e-money as a means of transaction on toll roads to others at 2379 or 84.96% of the ideal score, while the score The lowest was in the statement item. Furthermore, I want to use chip-based e-money as a means of continuous toll transactions in the future at 2249 or 80.32%.

4. CONCLUSION

Based on the results of the research in the discussion, the following conclusions were stated:

The description of the perceived of usefulness can be seen from its dimensions consisting of performance, ease of selection, ease of payment processing, the amounts of accuracy, efficiency, productivity, ease of work and quality of life were in the good category. It means that that the user's perception of the usefulness of electronic money cards in Indonesia can be said to be good overall. The dimension that received the highest response was the dimension of performance, while the dimension with the lowest response was the dimension of accuracy of the nominal amount. The picture of continuance intention for electronic money card users in Indonesia can be seen from its dimensions which consist of using it periodically in the future, using it in the future and suggesting it to others who are in a good category. It indicated that the continuance intention of electronic money card users in Indonesia has shown good performance. The dimension that received the highest response was the dimension that suggested to others and the dimension with the lowest response was used in the future.

The existence of this research is expected to be able to assist to the next researchers in conducting research on perceived usefulness and continuance intention by using different indicators from more diverse theoretical
sources, and on different objects. It is caused that there have been a few research about this study, especially those related to research methods, and data collection techniques. This research is expected to help companies to pay attention to the steps of analyzing the conditions of perceived usefulness and continuance intention in order to optimize their performance.

The lowest indicator of perceived usefulness was the level of accuracy of the nominal amount. Therefore, the company is expected to be able to improve its performance by developing and using aspects of technology that are faster and more precise in order to overcome this perception among its users.

The indicator of the lowest continuance intention was the future use aspect. It can be concluded that most of electronic money card users in Indonesia have not shown a complete commitment to using electronic money cards on an ongoing basis. To increase use in the future, companies must be able to develop services for their products and clarify usage regulations so that consumers can continue to use their products in the future.

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