

## INFLUENCERS E-MONEY IN BANKING SECTOR

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### ABSTRACT

*E-money card is product of prepaid card, that is make the customer to take a small transaction. E-money is released to helping customer that the transaction make it easier than take the cash money. E-money's that is bussiness make easy and always flowed the futuristic time. Therefore, the main objectives of this study is an analyze Perceived Usefulness, Perceived Ease of Use, Subjective Norm, Tecnological Innovativeness and Perceived Credibility for e-money use's. The population is all user of e-money in whole Semarang Area. Sample was determined by purposive sampling method with criteria's consist of: firstly, respondent consist of 17-60 years old male and female. Secondly, the respondent is customer of Mandiri Bank, BCA, and BRI. Thirdly, the respondent owns at least one of this cards: e-toll, Flazz, and Brizzi Card. Fourthly, the respondent should have enough fix average income in every month. Data method analysis being used is multiple linier reggesion analysis. This result of this research showed that Perceived Credibility can be explained by E-money use, but the Perceived Usefulness, Perceived Ease of Use, Subjective Norm, and Technological Innovativeness can't be explained by E-money use. These independent variables can explain the dependent variable as much as 62 percent and 38 percent explained with other variables. This study further contributes valid information for the Bank to provide a security system for the cards in order to increase Bank performances. Next, this study asks the Bank to provide appropriate information according to the using of e-money in order to drill customer's wills to keep on using e-money in every transactions they make.*

*Keywords: Perceived Usefulness, Perceived Ease of Use, Subjective Norm, Tecnological Innovativeness, and Perceived Credibility.*

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### INTRODUCTION

Internet technology has drastically changed the way consumers behave. New media proficiency level not only offers consumers a better way to look at a product and services, but also help children create better relationships between marketers and consumers. So that it has transformed them into a more experience, knowledgeable and discerning buyers, so that today's consumers have become "active in control" of the messages they see and hear (Arens and Loebbecke, 1999).

Today, consumers around the world can shop 24 hours and some marketing sectors, such as insurance, financial services, software, hardware, travel, books, multimedia, flowers or motor vehicles, has experienced rapid growth in online sales. The Internet has changed how consumers shop and buy goods and services, and it has turned into a global phenomenon. Many companies have started using the internet to reduce the cost of marketing, so as to reduce the cost of production of goods and services in order to remain competitive in an increasingly competitive market. The company also uses the Internet to carry, communicate, and provide information to sell a product, to get a response and conduct customer satisfaction surveys with them. Consumers use internet not only to buy products online, but also to compare the price, product features, and after-sales service that they will get if they shop at the online store. ([www.ms.com/insight/misc/inetretail.html](http://www.ms.com/insight/misc/inetretail.html))

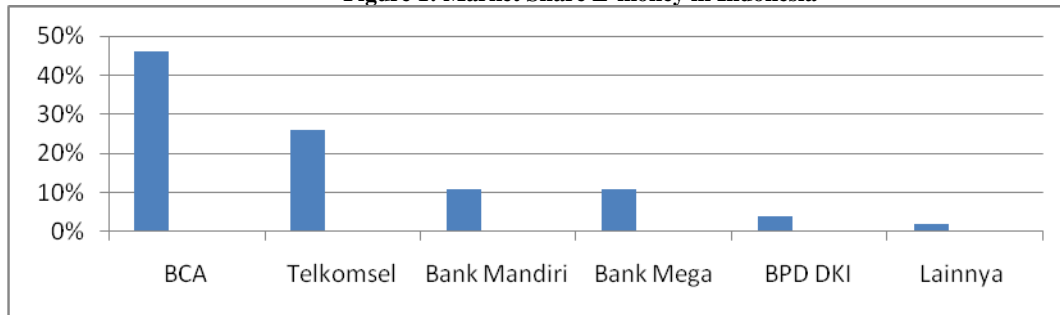
Online banking offers many benefits for banks and consumers. However, some banks still do not dare to use the online banking channel. Internet banking is considered not to have a social dimension (Matilla et al., 2003) and the questionable safety (Arens and Loebbecke, 1999). In addition, according to Arens and Loebbecke (1999), consumers also need access to the internet and learning can take advantage of the services of the bank. Consumer behavior (customer behavior) virtual world is very important because it is physically consumer or prospective buyers only dealing with a site as a representation. People familiar e-commerce is the buying and selling or exchange of goods or services and information through information networks including the Internet, enabling trade transactions in a variety of mechanisms (Matilla et al., 2003).

The reason people choose this type of trading is more electronic trading has many positive side compared with trade konvensional than producers gain proficiency level systems, for example, can expand the market place to the national and international markets. In other words, extending the market will have an impact on profit. In addition to the mini-capital outplay a trade can be easy to find more customers, suppliers, and business partners that best matches from all over the world. Electronic Commerce can lower the cost of the promotion, distribution, storage, and sales. When this became known practical electronic payment instrument ie electronic money or e-money, the same characteristics with the electronic payment which has experienced growth in its use, e-money transactions recorded amount of the nominal value of money equal to the cash, it's just that the money is converted into electronic form. According to Bank Indonesia Bank Indonesia regulations No.11/12/PBI/2009-Uang Electronics (Electronic Money) which has the following elements: (1) issued on the basis of the value paid by the customer prior to the issuer, (2) the value of money electronically stored in a medium such as a server or a chip, (3) as a means of payment

to the merchant who is not the issuer of electronic money, and (4) the value of electronic money paid by the holder and maintained by the issuer is not a deposit as defined in the Act menegenai governing banking (www.bi.go.id).

Understanding the above, it can be concluded that electronic money is a cash payment instrument where the nominal value is stored in a chip a prepaid card , and the transaction is offline, which do not require either a direct relationship with the bank and the user , in the electronic uanng not represent deposits of users. The use of e - money as an alternative to non-cash payment instruments in some countries shows that there is considerable potential reduces the growth rate of cash use, especially micro-payments are up to retail . Society already has several means of payment such as debit, credit, and so on. In Indonesia there are nine publishers who have issued electronic money, five of which are banks and four other non - bank institutions . The five banks are BCA, Mandiri Bank, BNI, Mega Bank, and the Jakarta Regional Development Bank, while the remaining four non-bank financial institutions consisting of PT Telkomsel, PT Telkom, PT Indosa, and PT Sky Sat ( www. waspada.co.id ).

**Figure 1: Market Share E-money in Indonesia**



Sources: <http://bisniskeuangan.kompas.com/read/2010/06/09/10093527/BCA>

Based on the records of Bank Indonesia (BI), users of digital currency / e - money has increased significantly , the detail in the first quarter of 2011 is 9.4 million people (an increase of 1.5 million people from 2010 of 7.9 million people). The number of transactions in the first quarter of 2011 reached 8.3 million transactions with a par amount of 176.56 billion .

Judging from some of the above information that the influence of the use of e-money by factors such as the perceived benefits (customer has e-money cards due to feel the benefits) , perceived ease of use ( the customer has e-money cards due to feel the ease in understanding how use), subjective norm ( the ownership and use of e-money cards are influenced by others), the perception keinovatifan technology (customers see that the system offered in the e-money card is a new and innovative technology that can replace the old system), and perception credibility (with e-money cards mearsakan customer safety and comfort in use) .

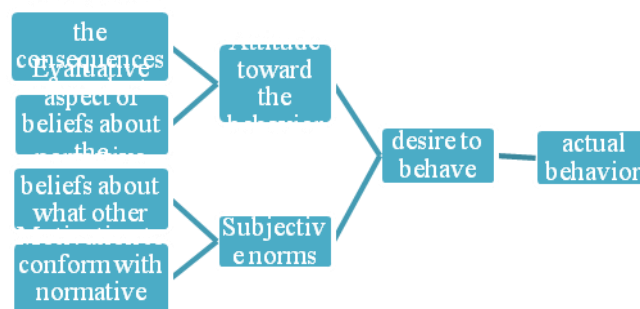
Several previous studies Hatta (2010), Ananda (2010), Rahayu (2012) , and Purnama (2012) who has been researching on -line banking, e-commerce and e-money, found no difference in outcome between the researcher with other researchers. One is the perceived ease of use of online banking, e-commerce and e-money differently. Based on the logical thinking of e-money , if the card is easy to use the results of these variables has a significant and positive effect , but some get negative results, indicating that the e-commerce transactions, e-money is not easy to use . That is the reason how this study to further examine the factors.

## THEORETICAL STUDIES AND HYPOTHETICAL DEVELOPMENT

### THEORY OF REASONED ACTION (TRA)

This theory was developed Fishbein and Ajzen (1975) to understand and predict the attitudes and behavior of individuals. TRA states that the primary determinant of actual consumer behavior is the desire to behave. The desire for this behavior is influenced by the attitude of the behavior (attitude toward the behavior) and subjective norm (subjective norm).

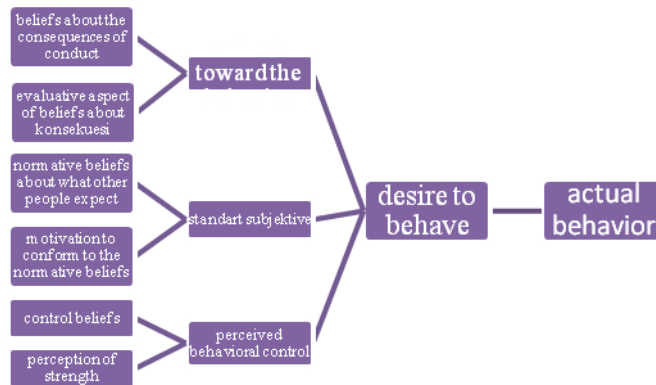
**Figure 2: Thought Groove TRA Model**



**THEORY OF PLANNED BEHAVIOUR (TPB)**

This theory was developed by Ajzen (1991) and is an extension of the TRA, with the added perception of behavioral control variables (perceived behavior control) in addition to the subjective norm attitudes and behavior, to explain the situation in which the individual has no control over the desired behavior, perceived behavioral control is defined as perceived ease or difficulty in performing the behavior. Taylor and Todd (1995) memodifikasikasi these definitions in the context of information systems research as perceptions of internal and external constraints on behavior. A person's behavior may not only be influenced by a person's desire to behave and opinion about the behavior of others, but can also be influenced by other factors, such as opportunities and resources such as: time, money, abilities / skills and cooperation with others (Harrison et al ., 1997).

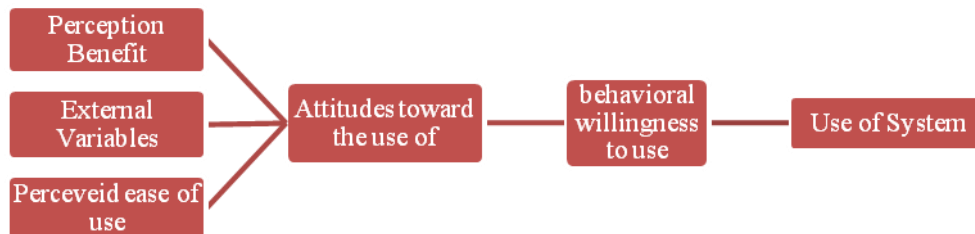
**Figure 3: Thought Groove TPB Model**



**TECHNOLOGY ACCEPTANCE MODEL (TAM)**

This model was developed by Davis (1989), which is designed to predict acceptance or use of the technology by users and benefits in employment. TAM is an extension of the TRA and TPB, which states that the desire to use a system is affected by two main determinants, namely perceived usefulness and perceived ease of use.

**Figure 4: Thought Groove TAM Model**



**DIFFUSION INNOVATION THEORY (DOI)**

This theory was popularized by Rogers (1995) defines as the process by which something is communicated through channels inivasi / specific relationships over time among members of the social system or the characteristics of innovation perceptions, beliefs and attitudes of individuals through their social environment (Karahanna et al., 1999). In this theory, the Rogers considered five attributes of innovations that may affect adoption an innovation, namely: relative advantage, compatibility, complexity, and clarity.

**INFLUENCE OF PERCEPTION BENEFITS FACTORS TO THE USE OF THE E-MONEY.**

Davis (1989) defines perceived benefits as a level where one believes that the use of a particular technology will enhance the performance of the person's pretasai . By Taylor and Todd (1995), perceptions of the benefits can be expedience with estimates of these factors such as: job easier, beneficial, increase productivity, enhance the effectiveness, and improve job performance.

The usefulness of the use of the E-Money can improve the performance of people using it. Therefore, the benefit of the E-money levels affect the attitude of the customer or the customer of the system. Davis in Jogiyanto (2007:114), that the benefits (Perceived usefulness) will improve the decision-making process work if a person feel confident that the information system is useful and he would use it. Conversely, if a person feels or believes that information technology systems are less useful then he will not use it . These results are supported by Hatta (2010), Rahayu (2012), Purnama (2012) which showed that the perception of the benefits of a factor considered in the customers using e-money .

**H1:** The positive influence of factors perceived benefits of the use of e-money .

## **INFLUENCE OF PERCEIVED EASE OF USE FACTOR TO USE E-MONEY**

Davis (1989) defines the perception of ease of use as a form where one believes that information technology can easily be understood. Davis (1989) also provide some ease of use of an information system that includes: easy to learn and easy to operate, easy to work with what is desired by the user, and add skills and client or customer.

Thus, any service charge E-Money perceived ease of use by the consumer, the service charge will then be adopted by customers in a transaction. As expressed (Davis in Jogiyanto, 2007:115) if a person feels or believes that information technology system is easy to use then he will use it . Conversely , when a person feels or believes that information technology systems are not easy to use , he can not use it . This corresponds to the analysis conducted by Rahayu (2012) and full moon (2012) to suggest that ease of use is a factor that customers consider the use of e -money.

**H2:** The positive influence perceptions of the ease of use factor on the use of e-money

## **INFLUENCE OF SUBJECTIVE NORM FACTORS TO THE USE OF THE E-MONEY**

Subjective norm is defined as the perception that someone else will make a reference to a person he thought others should be or not to perform a certain action (Fishbein and Ajzen, 1975). This reference can be derived from the superior, teacher or parent, for example, or from peers (classmates or co-workers). Although the relationship/influence of subjective norm on willingness to adopt the E - Money is not so clear, however, from a number of previous studies found the presence of a same theoretical importance of subjective norms on the use of information technology , either directly or indirectly {Taylor and Todd, 1995; Venkatesh and Davis 2000; Nysveen et al., 2005 in Hatta (2010)}. In the context of the E-Money, customers tend to make transactions through E-Money before they got those closest recommendations. This is supported by research conducted by Hatta (2010), showed that the Subjective Norm is not a factor considered in the customers using e - money.

**H3:** The negative influence subjective norm factor on the use of e-money .

## **INFLUENCE OF TECHNOLOGICAL INNOVATIVENESS FACTORS TO THE USE OF THE E-MONEY.**

Technology innovativeness is the desire of the individual to try out some new information system (Bhatti, 2007 in Hatta, 2010). Several studies have found an association u between keinovatifan consumers with the decision to adopt various technologies (Citrin et al., 2000). Someone who tends to be innovative always looking for something new. Relation to E-Money, customers will try something new if they feel the technology will support the smooth work Hatta (2010).

**H4:** The negative influence of technological innovativeness factor on the use of e-money.

## **INFLUENCE OF PERCEIVED CREDIBILITY FACTORS TO THE USE OF THE E-MONEY .**

Is defined as the perception of the credibility of the decision/assessment of the person's privacy and security associated with a particular system (Amin, 2007) . In banking technology, several studies have found empirical evidence of the importance of security and privacy factors to pengapdosian information technology in banking (Howcroft et al., 2002; Polatoglu and Ekin, 2001; Sathye , 1999 in Hatta, 2010) . Security and privacy is considered a major obstacle in adopting information technology. Customers are generally reluctant to provide information that is privacy to others. When customers find that transact through the E-Money is less guarantee the security and confidentiality of information .

According to the research Hatta (2010), that customer confidentiality very negative impact on the use of e-money. Therefore, by using e-money does not guarantee the confidentiality of customer information maintained properly pin, because the use of e-money without using it .

**H5:** The positive influence perceptions of credibility factor on the use of e-money .

## **RESEARCH METHODS**

### **POPULATION AND DATA COLLECTION PROCEDURES**

The population in this study were all e-money users in the city of Semarang are using purposive sampling method, with the following criteria: (1) respondents men and women aged 17-60 years, (2) respondents are customers of Bank BCA, Bank Mandiri and Bank BRI, (3) respondents have at least one card of the following cards: BCA Flazz cards, card e-toll card Mandiri, Gaz card, E-Money Self, and BRIZZI card, (4) the respondent has a profession such as: student , employees, employers who have an income.

Collecting data in this study is a questionnaire through the correspondent characteristics, respondents' experience in using the BCA Flazz card, E-Toll Card Mandiri, Mandiri Card Gaz card, e-money card Mandiri, and BRIZZI card.

**OPERATIONAL DEFINITION AND MEASUREMENT OF VARIABLES**

**Table 1: Operational Definition and Measurement of Variables**

<b>Variable</b>	<b>Operational Definition</b>	<b>Dimension</b>	<b>Indicators</b>
1. Perception of Benefit (X <sub>1</sub> )	a level where one believes that the use of a particular technology will enhance the performance of the person's presai. Davis (1989) and Adam et al., (1992)	1. Faster  2. improve performance  3. more benefits  4. Easier  5. More Practical	1a. Speed of transactions 1b. Speed as to avoid giving my change process  The role of e-money in improving the performance of  3a. Benefits in avoiding miscalculation 3b. Benefit avoid counterfeit money 3c. Got a promo of various merchant e-money  4a. Facilities without input pin 4b. Facilities without signature  5a. Practicality without carrying large amounts of cash 5b. Practicality without saving a dime
2. Perceived Ease of Use (X <sub>2</sub> )	ease of use of an information system that includes: easy to learn and easy to operate, easy to work with what is desired by the user, and add to the skills of the customer (Davis (1989)	1. Easily to be learn 2. Operationable 3. More useble	- ease in the study e-money -Ease of operation of the e-money -easily get access to the merchant's e-money
3. Subjective Norm (X <sub>3</sub> )	perception that someone else will make a reference to a person he thought others should be or not to perform a particular action (Ajzen and Fishbein, 1980).	influence of others	The influence from the around people of the use of e-money
4. Technological Innovativeness (X <sub>4</sub> )	willingness of individuals to try out some new information system (Bhatti, 2007).	New Technology	1a. Influence the use of new technologies.  1b. Utilization of new technologies of e-money products
5. Credibility Perception (X <sub>5</sub> )	decision / assessment of the person's privacy and security relating to a particular system (Amin <i>et al.</i> , 2007).	1. Privation  2. Security	Customer privacy in the use of e-money  2a. Security of e-money cards carry everywhere
6. Actual Use (Y)	Actions taken by someone. This means that the behavior of the actual technology is the use of technology.		1. Frequency of use of e-money 2. Benefit with 3. Bringing e-money.

**METHODS OF DATA ANALYSIS**

Data analysis method used is multiple regression method (Multiple Regresional Analysis) to determine how much influence the independent variable (independent), namely: perception benefits (X<sub>1</sub>), Perceived ease of use (X<sub>2</sub>), subjective norm (X<sub>3</sub>), technological innovativeness (X<sub>4</sub>), and perception of credibility (X<sub>5</sub>) on the use of e-money (Y). The shape of the multiple linear regression equation used in this study as follows:

$$Y = b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + e$$

extensive details:

Y = the use of e-money  
X1 = perception of benefits  
X2 = perceived ease of use  
X3 = subjective norm  
X4 = technological innovativeness  
X5 = perception of credibility  
b1, b2, b3, b4, b5 = regression coefficient  
e = error

## DATA ANALYSIS

### DATA QUALITY TEST RESULTS

Validity test results showed that the correlation between each indicator to the total score of the construct showed significant results. So it can be concluded that each question is a valid indicator. While the reliability of test results showed that the Cronbach Alpha value of 72.9%, meaning that the data in this study reliably

### REGRESSION TEST RESULTS

Results of regression test t-statistics show that all five independent variables include the perception of benefit, ease of perception, subjective norms, and technology keinovatifan not significant. These results can be seen from the probability of significance for the perception of the benefits of 0.802, perceived ease of 0.900, subjective norm by 0.328, and keinovatifan technology by 0.861, all four of them well above 0:05, while the perception of the credibility of 0.005 under 0:05. from here it can be concluded that only variables that affect the perception of the credibility of the use of e-money.

## DISCUSSION

### PERCEIVED USEFULNESS FACTOR INFLUENCE THE USE OF THE E-MONEY.

Rejection of the first hypothesis (H1) indicates that only the consumptive society of Semarang, just want to buy it, do not see what the benefits of what is received. Thus, in terms of the variables that should benefit perceived benefits but in reality could not feel the benefits provided in the facility of e-money is not realized. The results of this study are not consistent with studies conducted Hatta (2010), Rahayu (2012), Purnama (2012) who explains that the perception of the benefits of a positive effect on the use of e-money.

### PERCEIVED EASE OF USE FACTOR INFLUENCE THE USE OF THE E-MONEY.

The second hypothesis (H2) stated that perceived ease of use positively influence the use of e-money is rejected. These results are consistent with the results of the study Hatta (2010) and Ananda (2010). However, in contrast to the results of research Rahayu (2012) and Purnama (2012). The results of this study indicate that people who use the Semarang e-money cards can only be used alone without wanting to know what is actually a very easy use of e-money, such as ease of transactions at merchants designated. When customers buy e-money card does not know its cards right. Thus, in terms of the variables perceived ease of use that should be easy to use but in fact our customers can not feel the ease of use of the facilities provided in the e-money.

### SUBJECTIVE NORM FACTORS INFLUENCE THE USE OF THE E-MONEY.

Results of testing hypothesis three (H3) in this study are consistent with the research Hatta (2010) which states that the Subjective norms negatively affect the use of e-money. However, in contrast to research conducted by Ananda (2010), Rahayu (2012) and Purnama (2012) who explains that the subjective norm no effect on the use of e-money. The results showed that people who use the Semarang e-money card is not affected over others in its use. Customers buy e-money card when he felt the need to see a system that is easy and convenient transaction without having to be influenced by others in have it. Thus, in terms of the subjective norm variable that should be influenced by others, but in fact is not affected by others.

### TECHNOLOGICAL INNOVATIVENESS FACTORS INFLUENCE THE USE OF THE E-MONEY.

The results show that the fourth hypothesis which states that keinovatifan technology negatively affect the use of e-money is accepted. These results are consistent with Hatta (2010) and not in accordance with the study Ananda (2010), Rahayu (2012) and Purnama (2012) which states that technology keinovatifan no effect on the use of e-money. That is, people who use the Semarang e-money card does not see that e-money card is a breakthrough new ones to replace the manual transaction. E-money users see e-money card merely ordinary payment card, did not see that the system will replace the old conventional system.

## PERCEIVED CREDIBILITY FACTORS INFLUENCE THE USE OF THE E-MONEY.

Acceptance of the fifth hypothesis (H5) indicates that there is a positive and significant influence among the perception of credibility to the use of e-money. That is, people who use the Semarang e-money cards can feel the benefits of privacy, comfort in use. Because customers see that without the use of a pin or signature in a transaction easier because it does not need to remember the pin has. The results are consistent with research Hatta (2010) which states that the perception of credibility positive effect on the use of e-money. However, these results do not otherwise in accordance with the results of Ananda (2010), Rahayu (2012) and Purnama (2012) explains that the perception of credibility that no negative influence on the use of e-money.

## CONCLUSION

Based on the test results and a discussion of the influence of variables Perceived Benefits, Perceived Ease of Use, Subjective Norm, Technological Innovativeness and Perception of Credibility on the use of e-money, it can be **concluded** that of the five proposed hypotheses, hypothetical fifth received only variable that is the perception of credibility has positive and significant influence on the use of e-money. Some **previous literature** showed different results, Hatta (2010) showed that perceptions of benefits and factors influence positively the perception of credibility to the use of online banking. While Factors Perceived Ease of Use, Subjective Norm, Compatibility, and Technology Keinovatifan negatively affect the use of Online Banking. Ananda (2010) found that ease of use variables negatively affect the use of Click Bank. While variable comfort, confidence, availability feature has a positive effect with the use of Click Bank. Rahayu (2012) found that the perception of the benefit factor, Perceived Ease of Use, and Perceptions positive effect on intention to use and actual use. Purnama (2012) showed that the Fascination Promotion, Perceived Ease of Use, Perceived usefulness, for a positive effect on interest in purchasing the E-Toll Card Mandiri.

This study has **limitations** that can be used as consideration for subsequent researchers to obtain better results, ie First, the availability of recharging time is very limited. Second, the selection of a relatively short period of time resulting in the low test so that the level is still relatively small acuration of information. While **suggestions** for future research are: First, using a broader data covering cross-sectional data and time series. Secondly, simulating the use of e-money. Third, the system safeguards your e-money card. Fourth, the use of e-money card for larger transactions.

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