

# THE INFLUENCE OF BANK PRODUCT SOCIALIZATION AND ELECTRONIC PAYMENT SYSTEM QUALITY ON INTENTION TO USE E-MONEY IN INDONESIA

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**ABSTRACT:** *This research aims to provide empirical evidence that bank product socialization and electronic payment system quality positively influence intention to use e-money. This research is important to be done for the sake of The Bank of Indonesia and all of Indonesian people because there are a lot of benefits would be acquired by a massive using of e-money. The population of this research is all of Indonesian people and the sample that taken for this research are 209 respondents from the college/ university students in Indonesia. The independent variables which are used in this research are bank product socialization and electronic payment system quality. Meanwhile, the dependent variable which is used in this research is intention to use e-money. The survey result which showed that the using level of e-money is very low which only 26% from all of the respondents indicates that The Bank of Indonesia have to increase the effort of bank product socialization and control the quality of electronic payment system.*

**Keywords:** bank product socialization; quality of electronic payment system; intention to use e-money; The Bank of Indonesia

## 1. INTRODUCTION

Technologies evolution these days have influenced various sectors including the payment system in Indonesia economy sector. Conventional payment system is decreasing as the modernization of payment system by electronic payment system launched for the first time. One of the latest bank products which was launched in Indonesia in 2007 was e-money.

The launching of e-money product in 2007 actually was too late if we compare it with the launching of e-money in another country in Asia. Malaysia and Thailand which are still included in ASEAN, similar with Indonesia, have launched e-money product since 1996. Where as, Hongkong, India and Singapore launched it since 1997, 1999 and 2000 (*CPSS Survey of Electronic Developments*, 2001) [1].

Rosmaya Hadi as The Head of Policy and Supervision Department in The Bank of Indonesia stated that the use of e-money still based in Java (*bisnis.news.viva.co.id*) [2]. An interactive discussion between stakeholders in industry sector, 'New Wave of Less Cash Society: Indonesian Chapter' concluded that the trend of e-money would be difficult to adopt by Indonesian people, especially for the people who live in countryside [3].

In 2013, MARS Indonesia did a survey on customer's awareness toward e-money product in 5 modern cities in Indonesia. They found that only 23.8 of the population who do aware of e-money product, which means there are still 76.2 of the population who doesn't aware of e-money product [4].

Based on the fact, the distribution of e-money user still focused in Java which has more modern lifestyle [5]. One of the purpose from issuing e-money is to decrease issuance of cartal money. However, if e-money isn't massively used, the demand of cartal money is still as high as before. This condition would result inefficiency

because the expense for cartal money issuance is as high as the initial budget and even higher with the expense for e-money system enforcement.

One of the benefits if e-money system could be massively used is decrease in cartal money demand which would increase Less Cash Society lifestyle and the implementation of paperless transaction as well. Therefore, The Bank of Indonesia could cut their expense for cartal money issuance which is relatively expensive (around 3 billions Rupiah each year) [6]. Besides, money counterfeiting could be minimalized because the use of cartal money has been decreasing. On the other hand, the use of e-money also could build a modern country image for Indonesia.

From the explanation above, this research is so important to be done for the sake of Indonesian people in using bank product, especially e-money. It's also important for The Bank of Indonesia to support their plan which is expanding the use of e-money across Indonesia, not just focusing on Java.

Based on the research background above, then the problems can be identified from this research are:

1. Does the bank product socialization have any influence on intention to use e-money?
2. Does the electronic payment system quality have any influence on intention to use money?

The purposes of this research from the problems above are:

1. To know and analyze the influence of bank product socialization on intention to use e-money.
2. To know and analyze the influence of electronic payment system quality on intention to use money.

## 2. THEORITICAL REVIEW AND HYPOTHESIS

### 2.1 THEORITICAL REVIEW

#### 2.1.1 E-Money

Bank for International Settlement (BIS) stated in

Implications for Central Banks of the Development of Electronic Money (1996), e-money is stored-value or prepaid products in which a record of the funds or value available to a consumer is stored on an electronic device in the consumer's possession [7].

### 2.1.2 Mass Communication

According to Macbride (1983), the function of mass communication in social system are [8]:

1. Information to make the right decision.
2. Socialization to have adequate knowledge to be active in society.
3. Motivation to do individual and group activity.
4. Debate and discussion to provide the fact and opinion to solve problems.
5. Education to develop intellectuality, character and skill.
6. Advance the culture by increasing creativity.
7. Entertainment by publishing music, art, sport, drama, etc.

Integration to exchange message each other to achieve unity.

### 2.1.3 Socialization

From Macbride's mass communication functions, this research emphasize the socialization function because it is one of The Bank of Indonesia's role to disseminate information or knowledge about e-money product.

There isn't much previous research about product socialization, so this research use a similar research about tax socialization as the preference. Ariyani (2009) stated that tax socialization (informal education, interactive dialogue and advertisement from radio) is quite effective to increase the number of tax reporting. The number of tax reporting increase 208% from 2007 until 2008 [9].

### 2.1.4 Product Knowledge

Alba & Hutchinson (1987) in Baker *et al* (2002:47) stated that product knowledge is a complex, multidimensional construct that is characterized by the structure and the content of information stored in memory [10]. While Zeithaml (in Candraditya, 2013) stated product knowledge is intrinsic reference which is used by costumer to consinder whether to buy the product or not [11].

### 2.1.5 Payment System

According to The Bank of Indonesia, payment system is a system which includes policy, institute and mechanism which are used to transfer fund in order to fulfill economy activity obligation. It includes the payment tools and clearing mechanism until the settlement of the transaction [12].

According to the information system quality concept which is similar to payment system concept, there are 5 indicators of information system quality (DeLone and McLean, 2003). They are ease of use, system flexibility, response time, reliability and security [13].

### 2.1.6 Customers (Users) Satisfaction

Zeithaml and Bitner (2003:86) stated satisfaction is the customers evaluation of product or service in terms of whether that product or service has meet their needs and expectations [14]. If product performace below customer's expectation, customer would not satisfied. Conversely, if the product performance

meets or even higher then customer's expectation, customer would satisfied with the product.

### 2.1.7 Relation between System Quality and Customers (Users) Satisfaction

Researches about payment system quality are still rare, so this research used a common system quality research as the preference. A previous research by Saleh *et al.* (2012) found that information system quality influence software users satisfaction by 45.16% [15]. It means there is significant positive influence between information system quality and users satisfaction. The other research by Fendini *et al.* (2013) which similar is a survey in PT PLN (Persero) Malang about the performance of Centralized Customer Service Application (*Aplikasi Pelayanan Pelanggan Terpusat* or *AP2T*). They found that the system quality influence the users satisfaction by 57.9% [16].

## 2.2 HYPOTHESIS

With reference to the formulation of the problem and the results of previous studies, the hypothesis of this research are:

H1: Bank product socialization positively influence intention to use e-money.

H2: Electronic payment system quality positively influence intention to use e-money.

## 3. RESEARCH METHOD

### 3.1 DATA TYPE AND DATA RESOURCES

This research use primary data from the survey by online questionnaire using Google Forms Application. The questionnaire were distributed to college students across Indonesia by attaching the online questionnaire link through social network, sent the link by e-mail to the head of college student in every province and left a message at the university's website.

The online questionnaire was available to be access for 8 days, from 13 August until 20 August 2014. There were 216 respondents in 8 days. But, there were 7 of 216 responses that invalid because there was improper answer for several questions in the questionnaire.

### 3.2 POPULATION AND SAMPLE

According to The Bank of Indonesia (2006), the potential users of e-money are [12]:

1. Cellphone users with prepaid card
2. College students and high school students
3. Medium to upper class society
4. Public transportation, highway and gas station users or consumers

From that 4 categories, this research restrain the respondents just from one category which is college students. We assume that college student have adequate knowledge about the use of e-money and potential to use it in daily transaction. So, the population in this research is all of potential users of e-money in Indonesia. Meanwhile, the sample that we used is the college students across Indonesia.

### 3.3 IDENTIFICATION VARIABLES AND OPERATIONAL DEFINITION

In this research, the dependent variable (Y) is intention to use e-money. Where as, the independent variables (X1 and X2) are bank product socialization an electronic payment system quality.

### 3.31 Bank Product Socialization (X1)

The indicators for bank product socialization variable are as follow:

1. Information about e-money
2. Socialization from media about e-money
3. Education from The Bank of Indonesia about e-money
4. Knowledge about product characteristic and attribute
5. Knowledge about maximum satisfaction which acquired after using the product

### 3.3.2 Electronic Payment System Quality (X2)

According to the information system quality concept which is similar to payment system concept, there are 5 indicators of information system quality (DeLone and McLean, 2003) as follow:

1. Ease of use
2. System flexibility
3. Response time
4. Reliability
5. Security

### 3.3.3 Intention to Use E-Money (Y)

The measurement used for intention to use e-money is referring to the indicators from previous study by Rahmatsyah (2011) which are as follow [17]:

1. Motivation to use e-money
2. Consideration to try using e-money
3. Plan to use e-money in the next transaction

## 3.4 DATA ANALYSIS TECHNIQUE

Data analysis in this research is using SPSS and EVIEWS software. Validity and Reliability test are using SPSS software. Whilst, the classic assumption and the regression test are using EVIEWS software. Variable validity was tested with Pearson correlation using SPSS 18 software and it showed that all of the variables were valid. Reliability test with Pearson correlation using SPSS 18 software showed Cronbach's Alpha at 0.911 which is reliable. Classic assumption test to avoid bias in the regression model was done by using EVIEWS software.

## 3.5 HYPOTHESIS TESTING

The first hypothesis testing showed t-score of 1.97 which is higher than t-statistic (1.67). Besides, the test result revealed the probability value at 0.05. It means that bank product socialization influence intention to use e-money for the sample used in this research. Based on the test result, we can conclude that the first hypothesis proved or supported by the fact.

The test result indicates that the higher level of bank product socialization, the higher intention to use e-money. Survey result showed that only 26% of total respondents who used e-money. It proves that the intention to use e-money in Indonesia is still at low level category.

According to the first hypothesis testing, this low level intention to use e-money is still related with the poor bank product socialization. Indonesian people need more knowledge and information about e-money, so they don't have any wrong perception about e-money. The negative perceptions that make Indonesian people unwilling to use e-money would be discussed more later.

From this phenomenon, Indonesian people definitely need bank product socialization from various sources, especially The Bank of Indonesia as the banking institute who has the higher authorities. Bank product socialization could be started first from the intellectuals, which are the college student or the scholars. College students or scholars were assumed already have adequate knowledge to receive education from bank product socialization and they're also potential users of e-money. If the use of e-money has been massive or popular among the college students, it will spread easily across Indonesia.

Next, the second hypothesis testing results t-score by 3.02 which is still in alternative hypothesis reception area. With the significant level at 0.00 which is lower than the error acceptance limit (0.05), we could conclude that electronic payment system quality positively influence intention to use e-money.

This result means the higher level of electronic payment system quality, the higher intention to use e-money would be. If we link it with the survey result which showed only 26% of total respondents who used e-money, it shows that the electronic payment system quality is still in a low level category.

A system was built to facilitate human works, including the electronic payment system. The electronic payment system certainly built to make transaction easier and faster. If the transaction could be easier and faster with electronic payment system, Indonesian people should tend to use e-money than using cartal money. But, the fact is 74% of total respondents don't use e-money, even it would be more efficient for the transaction. This fact should be questioned. There is an offer to make the transaction becomes more efficient, but why most of Indonesian people unwilling to take this offer.

The second hypothesis test indicates Indonesian people unwilling to use e-money probably caused by the poor electronic payment system quality. The offer to use e-money is very high, but it isn't supported by the electronic payment system quality. This problem becomes one of the reason why the intention to use e-money is very low in Indonesia.

## 3.6 ADDITIONAL ANALYSIS

From total 155 respondents who don't use e-money, 44% of them stated that they don't need e-money. Another 26% don't use e-money because they don't know well about e-money product, while 9% of them have a perception that using e-money need extra charge. The other 8% of the respondents said that there isn't any facility for e-money transaction nearby. The last 7% and 6% have a perception that e-money procedure is to complicated and transaction using e-money is not safe enough.

The main reason why Indonesian people don't use e-money which reflected from these 155 respondents is they believe that they don't need it for daily transaction. Indonesian people believe they don't need e-money because they still don't know there are a lot of benefits from using e-money. Indonesian people not aware enough about e-money product, especially for the people who lived outside Java. This issue could be

settled by giving bank product socialization to the people who lived outside Java. By building people awareness about importance of using e-money and the benefits of it, people's perception would change.

For another reasons, bank product socialization also could be the solution. Indonesian people's low level knowledge about e-money, the perception that extra charge on e-money is very high, perception that e-money procedure is complicated and perception that transaction using e-money isn't safe could be vanished by bank product socialization. The Bank of Indonesia should have a big role for this socialization. They should associate with e-money publisher to make a socialization program about e-money.

The Bank of Indonesia should pay more attention to provide facility for e-money transaction. If Indonesian people already have adequate knowledge about e-money but there isn't any facility nearby, the intention to use e-money wouldn't increase either. Therefore, The Bank of Indonesia need to supervise the distribution of the facility for supporting e-money transaction equally in every province across Indonesia.

#### 4. CONCLUSION AND SUGGESTION

##### 4.1 CONCLUSION

Based on the data analysis and statistical test, this research has found results as follow:

1. Bank product socialization positively influence intention to use e-money.
2. Electronic payment system quality positively influence intention to use e-money.

##### 4.2 SUGGESTION

According to the analysis and the discussion before, there are some suggestion we could give as follow:

1. The Bank of Indonesia should more intense in giving bank product socialization to the society, especially to the college students.
2. The Bank of Indonesia could associate more with e-money publisher in giving bank product socialization to the society in every province in Indonesia.
3. The Bank of Indonesia should think again carefully either the electronic payment system and the users are ready or not to use e-money for transaction.
4. The Bank of Indonesia should increase the periodically evaluation of electronic payment system quality in Indonesia.
5. The Bank of Indonesia could make a policy to give an equally distribution of e-money facilities across Indonesia, especially for public facilities such as public transportation and gas station.

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