

The Intention to Use Electronic Money: The Case of Developing State

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Submission date: 30-Mar-2023 12:49PM (UTC+0700)

Submission ID: 2050735790

File name: JAAI_Paper1_Yuni_Nustini_-_Fariz.docx (53.98K)

Word count: 2893

Character count: 16378

2 The Intention to Use Electronic Money: The Case of Developing State

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ABSTRACT

This research employed TAM to explore whether perceived usefulness, perceived ease of use, perceived risk, and quality of services influenced the intention of Pontianak's people to use e-money with attitude as an intervening variable. The study was conducted in year 2018 in response to the State Regulation that require citizens to use e-money when they made fuel purchase at gas stations. Random sampling was used to collect the samples. The sample criteria were consumers who paid fuel transactions at gas stations with e-money. Results of the study showed that except for the perceived risk, all independent variables influenced the the intention to use e-money through attitude with large effect size. While Pontianak citizens represent people who were mostly unfamiliar with advanced technology, results of this study can be considered for the execution of e-money or other digital payment methods in other developing sites

Keywords: E-money, TAM, intension, developing state

Type of Paper: Empiric

1. Introduction

E-money has been functioned as a payment mode which is convenience, safe, accurate and efficient to execute transactions (Priambodo & Prabawani, 2016). Nowadays around the world, especially in megapolitan cities, e-money tends to be used to execute many kind of transactions. However, in small and developing cities or communities, the people have not get accustomed to use e-money yet.

This study is important because it was conducted in the early period of the e-money policy in Pontianak city. This study aims first is examining factors influencing people in Pontianak to use e-money as a response to the regulation made by the city government. Secondly, it is intended to describes how people living in developing communities that are not familiar with e-money react to the use of e-money.

2. Literature Review

Bank for International Settlements (1996) defined e-money as a certain amount of money that is kept in an electronic device and has credit or prepaid value, and every time a transaction is made, the value is subtracted by the nominal value of every transaction.

This study accommodated Technology Acceptance Model (TAM) introduced by Davis (1989) as the theoretical basis to build up the research model. The advancement of research hypothesis are explained in the following paragraphs.

The influence of perceived usefulness on the attitude toward the use of e-money

Perceived usefulness was defined by Davis (1989) as a degree in which an individual perceives that a new technology he/she implements will improve his/her performance. If an individual believes that a new system or technology that he/she uses is useful for him/herself, he/she will keep using it. Otherwise, if he/she does not believe so, he/she will stop using it. Previous studies found that perceived usefulness had a positive influence on user attitude

(Olatokun & Owoeye, 2012); (Fortuna, 2012); (Priambodo & Prabawani, 2016); (Habibi & Zaky, 2013). 1

Hypothesis 1: Perceived usefulness positively influences the attitude toward the use of e-money in Pontianak.

The influence of perceived ease of use on the attitude toward the use of e-money

Perceived ease of use is a degree in which an individual perceives that a technology is easy to use (Davis, 1989). Venkatesh and Davis (2003) divided ease of use into several aspects: easy to understand, less effort, easy to use, fulfilling someone's needs. In this study, perceived ease of use is related to whether or not e-money users easily learn, understand, and use e-money for fulfilling their needs. Previous studies found that perceived ease of use had a positive relationship with the systems being used (Davis, 1989; Priambodo and Prabawani, 2016; Olatokun and Owoeye, 2012).

Hypothesis 2: Perceived ease of use positively influences the attitude toward the use of e-money in Pontianak.

The influence of perceived risks on the attitude toward the use of e-money

Pavlou in Priambodo and Prabawani (2016) pointed out three ways of measuring perceived risks: previously known risks, possible loss, and unknown risks. In the context of this study, perceived risks of the use of e-money include losing account balance with no reason and losing cards due to the lack of authentication for the use of e-money. Fortuna (2012) found that perceived risks had a negative influence on the use of e-money, and this finding was supported by Priambodo and Prabawani (2016). Thus, it can be concluded that higher perceived risks causes unwillingness to use e-money.

Hypothesis 3: Perceived risks negatively influence the attitude toward the use of e-money in Pontianak.

The influence of quality of service on the attitude toward the use of e-money

Bharati and Chaundhury (2006) stated that quality of system is an individual's perception of a whole system as the manifestation of hardware and software. Users define a system with good quality of service based on its ability to fulfill their expectation, which includes practicality, ease of use, and time efficiency. If an individual finds that e-money allows users to make transaction more easily, practically, and efficiently, users will keep using it. Fortuna (2012), and Olatokun and Owoeye (2012) found that quality of service positively influences the attitude toward the use of e-money.

Hypothesis 4: Quality of service positively influence the attitude toward the use of e-money in Pontianak.

The influence of attitude on the intention to use e-money

According to Jogiyanto (2007), attitude is the amount of affection or feeling of an individual in accepting or rejecting an object or behavior that is measured using a method in which an individual is placed in a two-polar evaluative scale, such as good or bad, agree or disagree, and so on. Previous studies on user acceptance of internet banking show that attitude positively and significantly influences user's perceived to use e-banking (Suh & Han, 2002); (Tjini & Baridwan, 2013).

Hypothesis 5: Attitude positively influences the intention to use e-money in Pontianak.

3. Research Methodology

Participants of this study were people who purchased fuel in Pontianak gas stations who using e-money. The sampling method was random sampling. A set of questionnaires was developed adopting Likert model with five scales. The questionnaire were distributed by

Google Docs or directly asking people who were purchasing fuel in gas stations in Pontianak. This study utilized Smart Partial Least Squares 3 (SPLS M3) to perform the tests required.

Items included in the questionnaires were adopted or adapted from previous studies. Intension to Use E-money as Dependent Variable the indicators were adapted from Olatokun and Owaoeye (2012). The Independent Variables included: Perceived Usefulness: the indicators were adopted from Utami (2016); Perceived Easy of Use: the indicators were adopted from Utami (2016); Perceived Risks: the indicators were adopted from Wijayanti (2017); and Quality of Service: the indicators were adopted from Utami (2016). The Intervening Variable was Attitude, the indicators were adopted from Olatokun and Owaoeye (2012).

4. Results

Profile of the Respondents

The descriptive statistic test was conducted by SPSS version 20. Number of the data collected was 100. Profile of the respondents can be illustrated as: 64% were at the age of 20 – 40 years old which 75% were employees or entrepreneurs, the rest are students or house wives. There were 59% participants have one or more cars. 96% respondents have one or more motorcycle, and 4% had no motorcycle. 73% participants buy fuel twice or more in a week, while 27% buy once in a week.

Tests of the Model and Hypothesis

This study utilized Smart Partial Least Squares 3 (SPLS M3) to perform the tests. In the outer model analysis, the research model, variables and items were assessed by examining the reliability, convergent validity, and discriminant validity. For convergent validity, the value is expected to be more than 0.7, while for composite reliability is 0.8 (Ghozali & Latan, 2015)

The findings confirm that loading of each item were well above the threshold 0.70 (Ghozali & Latan, 2015) - (except for 2 items). The cross loading analysis demonstrated good convergent validity. In addition, the Average Variance Extracted (AVE) was expected to be more than 0.5 (Ghozali & Latan, 2015), and it was met. Structural model is intended to identify cause and effect of each latent variable, the measure is R-square. Table 1 listed the composite reliability and R-square. This research confirmed that all of the test met the satisfactory values.

Table 1. R-square & Compisite Reliability => **Tab.9**

Variable	R-square	Composite Reliability
Perceived usefulness		0.935
Perceived ease of use		0.904
Perceived risks		0.880
Quality of service		0.949
Attitude	0.759	0.921
Intention to use	0.760	0.938

Mean while, this study determined confidence level of 95% ($\alpha = 5%$, one tailed). Table 2 shows the result of the hypothesis testing.

Table 2. Hypothesis Testing Result => **Tab.10**

Hypothesis	Path	Original sample	p -value*	Decision
H1	Perceived usefulness → Attitude	0.157	0.049	Supported

Hypothesis	Path	Original sample	p -value*	Decision
H2	Perceived ease of use → Attitude	0.346	0.000	Supported
H3	Perceived risks → Attitude	-0.080	0.231	Not supported
H4	Quality of service → Attitude	0.412	0.001	Supported
H5	Attitude → Perceived Use	0.265	0.018	Supported

Test of Intervening Variable

According to Baron and Kenny (1986), there are two analysis models to examine the influence of an intervening variable on the correlation between dependent and independent variables. Bootstrapping test was conducted to examine whether attitude as an intervening variable influenced the relationship between each of the independent variables and the dependent variable, the summary are presented in Table 3.

Table 3. The Analysis Intervening Variable => Tab. 11

Path	Original sample	p-Value	Result	Type of Intervening Variable
Quality of service → Intention to use	0.412	0.000	Significant	Quasi Mediaton
Quality of service → Attitude	0.411	0.000	Significant	
Perceived ease of use → Intention to use	0.183	0.059	Not Significant	Full Mediation
Perceived ease of use → Attitude	0.346	0.000	Significant	
Perceived risks → Intention to use	0.081	0.285	Not Significant	No Mediation
Perceived risks → Attitude	- 0.080	0.231	Not Significant	
Perceived usefulness → Intention to use	0.140	0.067	Not Significant	Full Mediation
Perceived usefulness → Attitude	0.157	0.047	Significant	

Effect Size Analysis for Intervening Variable

The effect size (f^2) test for attitude as the mediating variable resulted a large effect size.

Table 4. Effect Size of the Intervening Variable => Tab 12

	Intention to Use	Attitude
Attitude	(+) 1.981	
Quality of Service		(+) 0.220
Perceived Ease of Use		(+) 0.195
Perceived Usefulness		(+) 0.039
Perceived Risks		(+) 0.019

Note: Cohen (1988): $f^2 = 0,02$: small effect; $f^2 = 0,15$: medium effect; $f^2 = 0,35$: large effect.

5. Discussion

Referring to Table 2, the following paragraphs elaborate and discuss the results.

1
Hipotesis 1: Perceived usefulness positively influences the attitude toward the use of e-money.
Hypothesis 1 was supported, “Perceived usefulness significantly influenced the attitude toward the use of e-money”. From the previous study, Irmadhani and Nugroho in Wijayanti (2017) stated that perceived usefulness is related to productivity and effectiveness from the benefits of a system for improving user performance. It can be concluded to this research finding that when the citizens of Pontianak City feel that they get many benefits by using e-money, they will have more positive attitude toward using it. This result is in line with Wijayanti (2017) and Priambodo and Prabawani (2016), it is confirming that perceived usefulness influences the attitude toward the use of e-money

Hipotesis 2: Perceived ease of use positively influences the attitude toward the use of e-money.
Hypothesis 2 was supported: “Perceived ease of use significantly influenced the attitude toward the use of e-money”. This relationship works in the way that an individual will use a system if he/she finds it easy to operate and vice versa (Davis, 1989). In the context of this study, it was easy to purchase fuel by using e-money in gas stations in Pontianak, and thus the attitude toward became more positive. This result is in line with Olatukun and Owoeye (2012), in which perceived ease of use positively influences the attitude toward the use of Internet banking.

Hipotesis 3: Perceived risks negatively influence the attitude toward the use of e-money.
Hypothesis 3 was not supported: “Perceived risk did not significantly influence the attitude toward the use of e-money”. Stone and Gronhaug in Utami (2016) stated that an individual tends to avoid risks when there is an uncertainty for the possible outcomes in any kinds of transactions. This study conclude the people of Pontianak city as users cannot easily be sure of the use of e-money. When users find more positive information as well as learn more about the use of e-money, users will see fewer risks in using e-money, that leading to more possibility to use e-money (Wijayanti, 2017). This result was predictable since the use of e-money in Pontianak was obligatory regardless the fact that people were not aware of any possible risks.

Hipotesis 4: Quality of service positively influences the attitude toward the use of e-money.
Hypothesis 4 was supported: “Quality of service significantly influenced the attitude toward the use of e-money”. Good quality of services that come from banks or other institutions as e-money service providers will increase the use of e-money in any kind of transactions, not only for purchasing fuel. This finding was supported by Fortuna (2012) and Utami (2016).

Hipotesis 5: Attitude toward the use of e-money positively influences the intention to use e-money.

Hypothesis 5 was supported: “Attitude significantly influenced the intention to use e-money”. When people find e-money is beneficial, they will be agree to have it and then foster their intention to utilize it. This is in line with the result of Olatukun and Owoeye (2012)’s.

6. Conclusion

This study concludes that Pontianak communities support the new pronouncement to use e-money in fuel transaction. Afterwards, it will encourage people’s behavior to utilize e-money.

Implication

Attitudes to use e-money in this study is influenced by perceived usefulness, perceived ease of use, and quality of service provided by the e-money issuers, but not by perceived risk to use e-money. When people find it beneficial utilizing e-money, people will be agree and happy to have it and then motivate them to spend it. People start to feel comfortable and secure using e-money and no longer depend on cash payments. In the case of Pontianak people, e-money will then be expended not only for fuel transaction, but also for many other transactions.

Limitation

The far distance between the researcher's site (in Yogyakarta city) and the object together with the limited time and fund to doing the research became three main concerns for this research. These caused a constraint to get a lot number of sample.

Suggestions

Some suggestions can be address for future studies. First, involving new variables especially individual factors that might express people awareness to use e-money. Next it suggests to involve more participants from some other areas or locations with similar development characteristics.

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