The Effectiveness Of Using E-Money On The Smart Transportation Payment System In The City Of Jakarta

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Abstract
The background of this research is how to find out the effectiveness of the use of electronic money that is applied to the transportation system so that it can help the payment system to be more sophisticated and can help the wider community in making payments quickly in various sectors. The method used in this study is to use the literature review method and use quantitative methods, which use survey tools, with a survey, the data will be confirmed as real data, which can be useful in data processing so that you can find out the results of the data in field. The problem raised in this research is how to make payments quickly on a transportation system that is already advanced and sophisticated. With an electronic money payment system, it will be able to solve the problem of this research so that it can be seen that the payment system is more effective than the previous payment system. The purpose of this research is how to find out a variable is considered effective if it affects other variables, with a variable that is considered effective, the other variables will follow from the variables raised in this study, the variable raised in this study is electronic money, smart transportation payment system on the transportation system in Jakarta.

Keyword : *E-Money, Smart Transportation, Payment System, Jakarta.*

I.   INTRODUCTION

The use of electronic money is increasingly being used in various fields of life, with various conveniences, which are obtained by using electronic money will be able to help people make payments without having to carry cash in various places, but every advantage has a drawback, so the disadvantages must be minimized. Because it can help many people, especially in the field of transportation that is raised in this study, by using a smart system in the use of electronic money [1].The problem raised in this study is how to determine the effectiveness of the use of electronic money that is applied to the payment system in transportation modes and how to use the effectiveness of payments in the smart city of Jakarta [2].The method used in this study is by using the literature method, and using survey methods combined with quantitative methods, so that they can find out the actual data in the field [3].

The purpose of the research raised on this vector is how to find out the effectiveness of the use of electronic money that will be applied to the transportation system, especially the smart transportation system in the city of Jakarta, with the use of electronic money everything will be done virtually and no longer use cash or cash. Paper money, with the use of electronic money can also help people make payments quickly so that there is no touch or that can make the spread of covid-19 even more [4].The use of electronic money has begun to be widely used in many fields, especially in the field of education, transportation and transactions that can be used anywhere and anytime without using cash. Therefore, the use of electronic money has begun to be expanded because its effectiveness is high enough so that the public and users of electronic money can experience significant benefits [5].

II.   RESEARCH METHOD

This research uses quantitative methods using survey media to 100 users of electronic money in the transportation system, with the use of electronic money it will make it easier for many parties and will make it easier to examine the finances of the transportation system, thus making it easier to audit [6].This study uses

SPSS software with SPSS 20 software, so it will be able to process the data that has been obtained based on the questionnaire obtained. Therefore, the use of software in this study can help researchers in solving problems, especially data management problems [7].The survey was conducted on 100 people who use electronic money to make payments on a smart system in the transportation system, by conducting a survey they will be able to find out real data and be able to know the impact in the field [8].
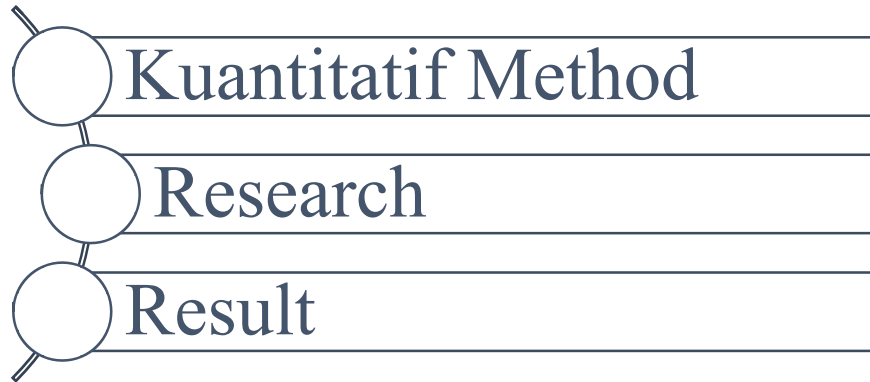
Kuantitatif Method

Research

Result

Fig 1. Research Method

III.   RESULTS AND DISCUSSION

        Based on Figure 2 below, it can be explained as follows that there are 2 independent variables, namely E-Money and Smart Transportation, then there is 1 dependent variable, namely Payment System, E-Money is represented by X1, Smart Transportationis represented by X2 and Payment System is represented by Y. There is one hypothesis. What is the relationship between faith and Payment System and hypothesis 2 what is the relationship between Smart Transportation and Payment System.
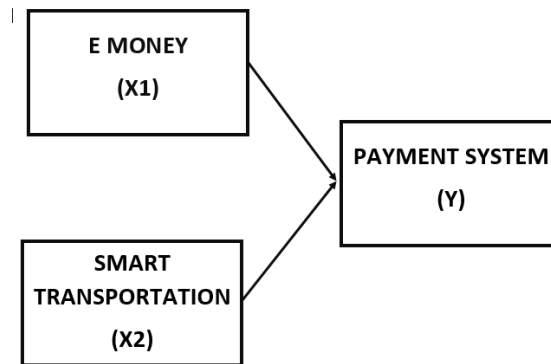
E MONEY
(X1)

SMART TRANSPORTATION
(X2)

PAYMENT SYSTEM
(Y)

Fig 2. Hypothesis Model

Table 1. Questions given to 100 Online User Transportation

No	Questions	Variable
1	E-Money is very Effective	X1
2	E-Money is very simple	X1
3	E-Money is easy to use	X1
4	Smart Transportation is important	X2
5	Smart Transportation is part of Smart City	X2
6	Smart Transportation in Jakarta is must	X2
7	Payment System is really needed	Y
8	Payment System is sistem in transportation	Y
9	Payment System use cashless	Y
10	Payment System part of system	Y

1. Multiple Linear Regression Analysis

a. Regression Equations

Table 2. Recapitulation of the Results of Multiple Linear Regression Analysis

Variable	*Unstandardized Coefficients*
E-Money	2,212
Smart Transportation	0,478
Payment System	0,378

Source: The Results of Data Processing

Based on table 2 above, the following explanation will be given, the E-Money variable has an Unstandardized Coefficients value of 2.223, the Smart Transportation variable has an Unstandardized Coefficients value of 0.478 and the Payment System variable has an Unstandardized Coefficients value of 0.378 which means that it is very influential between one variable and another.

b.Koefisien Determinasi (R2)

Table 3. Correlation and Determination Coefficients

Dependent Variable	Independent Variable	R	R *Square*	*Adjusted R Square*
Y	X1 & X2	0,5 32	0,416	0,647

Source: The Results of Data Processing

Based on table 3 above, there are dependent variables, namely Y and independent variables, namely X1 and X2, variable X1 has an R value of 0.5 and variable X2 has an R value of 32, variables X1 and X2 have an R Square value of 0.416 and variables X1 and X2 has an Adjusted R Square value of 0.647, which means that the independent variable and the dependent variable have a very significant relationship.

c. Hypothesis Testing

c.1. Hipotesis I (F test / Serempak)

Table 4. F / Simultaneous Test

Dependent variable	Independent Variable	F Count	F Table 0,05	Sig.F	decision on H0
Y	X1 & X2	54,114	1,674	0,003	Rejected

Source: The Results of Data Processing

Based on table 4 above, there are dependent variables, namely Y and independent variables, namely X1 and X2, variables X1 and X2 have an F Count value of 54.114 and variables X1 and X2 have an F Table value of 1.674, variables X1 and X2 have a Sig.F value, namely 0.003, X1 and X2 variables have a Decision on H0 value, namely Rejected, which means that there is a relationship between variables.

c.2 Hipotesis II (t test / Parsial)

Table 5. t / partial test results

Variable	t	Sig.
X1	3,522	0,003
X2	5,456	0,002

Source: The Results of Data Processing

Based on table 5 above, there are independent variables, namely X1 and X2, variable X1 has a t value of 3.522 and variable X2 has a t value of 5.456, variable X1 has a sig value of 0.003 and variable X2 has a sig value of 0.002 which means variable X1 and X2 has a very significant value to the dependent variable Y.

2. Discussion of Research Results

a. Hypothesis 1 (H1) variable E-Money (X1) on Payment System (Y)

Based on the results of data processing above, the results of hypothesis testing 1 (H1) of the E-Money variable (X1) on Payment System (Y), the E-Money variable (X1) has a significant relationship to the Payment System variable (Y).

b. Hypothesis 2 (H2) variable Smart Transportation (X2) on Payment System (Y)

Based on the results of data processing above, the results of hypothesis testing 2 (H2) on the Smart Transportationvariable (X2) on Payment System (Y), the Smart Transportation variable (X2) have a significant relationship to the Payment System variable (Y).

3. Descriptive Analysis

a. Variable E-Money (X1)

Based on the results of the research above and data processing, it can be concluded that the E-Money variable (X1) affects the Payment System variable (Y) significantly, which means that the use of electronic money will affect Smart Transportationso that it can make Payment System a good business too, by Therefore E-Money is a variable that must exist and have a good influence on Payment System.

b. Variable Smart Transportation (X2)

Based on the results of the research above and data processing, it can be concluded that the Smart Transportation(X2) variable affects the Payment System variable (Y) significantly, which means that if an Smart Transportation wants to run well, it can take advantage of the Payment System sales system because it can affect sales.

c. Variable Payment System (Y)

Based on the results of the research above and data processing, it can be concluded that the Payment System variable (Y) is significantly influenced by the E-Money (X1) and Smart Transportation(X2) variables, which means that if an Payment System can be maximized using electronic money and using E-Money in Transportations, and it can be seen the effectiveness of using E-Money.

IV.   CONCLUSION

The conclusion generated based on the research above is that the E-Money (X1) and Smart Transportation(X2) variables significantly affect Payment System (Y), which means that a good E-Money (X1) will be able to produce Payment System (Y). Which is also good, because transactions with electronic money increase satisfaction with Payment System, then a good Smart Transportation (X2) will be able to produce good Payment System (Y), because transportation on Payment System media will be able to maximize sales and make payments faster with electronic money. Future research is how to use electronic money in all payment systems and payment systems in all fields such as business transportation and others.

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