

The Influence of Non-Cash Payment Transactions on Economic Growth in East Java

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ABSTRACT

The purpose of this study is to ascertain the impact of ATM-debit cards, credit cards and e-money on East Java's economic growth. This kind of descriptive quantitative research uses secondary data from the Central Statistics Agency and Bank Indonesia's official websites. The classical assumption test, multiple linear regression analysis, and hypothesis testing are the test instruments used in this study. The study's findings indicate that X1 influence on Y has a sig value of $0.077 > 0.05$. X2 has an impact on Y of $0.454 > 0.05$. X3 has an impact on Y of $0.397 > 0.05$. The simultaneous influence of X1, X2, and X3 on Y is known to be $0.140 > 0.05$. The usage of ATM-debit cards no significantly and positif to East Java's economic expansion. The growth of East Java's economy is no significantly and negative by credit card use. East Java's economic growth is no significantly and negatively by the use of e-money. Whereas, the use of ATM-debit cards, credit cards and e-money simultaneously has a positive and insignificant influence on economic growth in East Java.

Keywords: ATM-Debit Cards, Credit Cards, E-money, Economic Growth.

1. INTRODUCTION

Economic growth is used to describe the occurrence of economic progress or development in a region or a country. A country is said to experience economic growth if its products and services increase or in other words there is a development of GNP (Gross National Product) potential of a country, economic growth must reflect growth in per capita output. Gross Regional Domestic Product (GRDP) is works as a benchmark for assessing the welfare of a region and regional economic growth. The GRDP value can be seen based on economic growth from year to year. Increasing GRDP indicator means that it will increase the welfare and prosperity of the people in the area (Dewandaru et al., 2022).

The payment system has changed from time to time, starting with a system of bartering or exchanging goods and then cash payments using cash (currency) issued by Bank Indonesia, and currently a cash payment system has emerged which has begun to change how money works in transactions (Ismanda, 2019). By using a non-cash payment system, transactions or payments can be made anywhere and at any time using payment instruments supported by technology. Payment tools, namely card payment tools, such credit cards and debit cards, ATM cards, Bank Indonesia National Clearing System, Bank Indonesia system Real Time Gross Settlement and e-money (Febriaty, 2019).

Based on data obtained from the Central Statistics Agency official, it shows that from 2021 to 2023 the number of ATM-debit cards will continue to increase continuously, while the number of credit cards and e-money experienced ups and downs for three years. Development of the number of ATM-debit cards, credit cards and e-money in circulation can be an indicator of public acceptance of non-cash transactions and digital developments offer many benefits as well as convenience and efficiency that can be felt by the public regardless of security risks that have the potential to hinder the development of payment systems (Pangestika, 2021).

The amount of money in circulation in society will be impacted by the development of a non-cash payment system; the more money in circulation, the more economic growth can increase, because with an increase in the amount of money in circulation society will place some of its funds for consumption, thereby making producers produce more goods which has an increasing effect. demand for production factors thus influences per capita income and economic growth (Sinaga, 2021).

In the era period of globalization and quickening technological advancements, the shift towards non-cash payments has become one of the main characteristics of the modern economy. This phenomenon manifests itself not just at the national level but also at the regional one, including in East Java, one of the provinces that has great

economic potential in Indonesia. Based on the background of non-cash payment transactions on economic growth, researchers conducted a study entitled "The Influence of Non-Cash Payment Transactions on Economic Growth in East Java" how important it is to understand the use of non-cash payments and how it can shape more inclusive and sustainable economic development in East Java.

The following is the formulation of the research problem: 1. Does the use of ATM-debit cards influence economic growth in East Java; 2. Does to use of credit cards influence economic growth in East Java; 3. What to use e-money influence economic growth in East Java? 4. What is to use of ATM-debit cards, credit cards and e-money influence economic growth in East Java?

2. LITERATURE REVIEW

2.1. Economic Growth

The process of increasing overall output is known as economic growth, and it is determined by both GDP (Gross Domestic Product) and GNP (Gross National Income) (Pangestika, 2021). The Gross Regional Domestic Product (GRDP) number, which shows annual economic growth, is one measure of the effectiveness of regional development. By increasing economic growth as measured by the Gross Regional Domestic Product (GRDP) indicator, people's welfare and prosperity will also rise (Dewandaru et al., 2022).

2.2. Non-Cash Payment System

Non-cash payment systems are grouped into two types, namely payments using ATM-debit and credit cards which are used to transfer funds non-cash. The difference between debit transfer and credit transfer lies in the order when sending money (Pangestika, 2021). Currently, card-based payment instruments have developed into various types, including credit cards, ATM cards, debit cards, and various types of electronic money (e-money) (Mahendra, 2019).

Account Based Card (ATM Card and Debit Card) is a means of payment using a card where the funds come from an account (account) from the customer himself. Initially, the most widely used means of payment using cards was ATM cards, this was because the purpose of ATMs was initially only to substitute the teller function to increase efficiency, operational and overhead cost, such as providing new branch offices and adding human resources (Mahendra, 2019).

Credit cards are banking products that aim provides convenience for customers to carry out transaction, both with the credit card issuing bank itself and with several merchants or sellers of goods and/or services that accept credit cards as a payment medium (Firda, 2022).

Bank for International Settlement (BIS) defines that "e-money is a product that has stored value or prepaid where a certain amount of money is stored on an electronic medium owned by the user." E-Money aims to make it easier for people to carry out all kinds of economic transactions in daily life, especially micro-scale transactions, but e-money does not aim to completely replace the function of cash (Firda, 2022).

2.3. HYPOTHESIS

Below are the hypotheses of this study:

H1: The use of ATM-debit cards influences economic growth in East Java

H2: Use of credit cards influences economic growth in East Java

H3 : Use e-money influence on economic growth in East Java

H4: Use of ATM-debit cards, credit cards, and e-money influence on economic growth in East Java

3. METHOD

This research is quantitative descriptive research which describes variable as they are, backed by data in the form of numbers generated from actual conditions. The last three years' of data were used in this study, namely 2021 to 2023 in quarterly form. The data used in this research are data gathered from the Central Statistics Agency and Bank Indonesia's official websites.

Multiple linear regression analysis is used in this research method. classical assumption testing which includes: 1. Normality Test, a statistical test using the Kolmogorov-Smirnov approach produces a significant value of more than 0.05 which is declared normal. 2. Multicollinearity test by checking the VIF tolerance. The VIF maximum is ten, while the tolerance limit is 0.10. Multicollinearity arises when the VIF value is greater than 10 and the tolerance value is less than 0.10. If the opposite is true, then multicollinearity does not occur. 3. Heteroscedasticity test using scatterplot graphs. It is possible to conclude that there are no signs of heteroscedasticity if the the points do not follow any particular pattern. 4. Autocorrelation Test uses a run test to check for autocorrelation symptoms. Multiple linear regression analysis was carried out using the formula $y = a + b_1x_1 + b_2x_2 + e$ to determine the effect of the independent variable on the dependent variable. hypothesis test, partial t test, simultaneous f test, and coefficient of determination test (R^2) then done. The decision rule for the t-test (partial) is a significance value < 0.05 , meaning the research hypothesis is accepted, while a significance value > 0.05 means the research hypothesis is rejected. The decision for the f-test (simultaneous) is that if the f-test significance number is < 0.05 , then the research hypothesis is accepted, while the f-test significance number is > 0.05 , then the research hypothesis is rejected. R determination test² carried out to test whether the dependent variable is influenced by the independent variable.

4. RESULTS

From the test results using Kolmogrov-Smirnov consequently, it can be said that the normalcy test in this study is 0.200 which is greater than 0.05. This proves that the data for all variables is normally distributed. From the test result in this study show that the tolerance value for ATM-debit cards is $0.810 > 0.10$, credit cards $0.148 > 0.10$ and e-money $0.161 > 0.10$ and VIF value for ATM-debit cards $1.234 < 10$, credit cards $6.741 < 10$, e-money $6.228 < 10$ thus making it evident that in this study there is no multicollinearity. From the test results using scatterplots graphs, The dots are dispersed throughout the top, there is no discernible pattern. This indicates that the study does not exhibit any heteroscedasticity signs. Results of the run test autocorrelation test it is known that Asymp.sig (2 – tailed) is 0.762 it can be said that autocorrelation symptoms do not exist. Below is the result of Multiple Linear Regression Analysis:

$$Y = 1363573224271411.000 + 11361206.429 X_1 - 575453755.430 X_2 - 12397472.181 X_3 = 1709447137994310.000$$

From this equation, the following results are obtained:

1. This regression tests findings indicate that the constant value (a) is 1363573224271411,000, This indicates that economic growth is 1363573224271411,000 if the independent variable is equal to zero.
2. Regression coefficient value for ATM-debit cards is positive, namely 11361206.429, which means that if the ATM-debit card variable grows by one unit, then the rate of economic growth will by 11361206.429
3. Regression coefficient value for credit cards is negative, namely 575453755.430, which means that if credit cards increase grows by one unit, then the rate of economic growth will by 575453755.430.
4. Regression coefficient value e-money has a negative value, namely 12397472.181, which means that if the variable e-money increases grows by one unit, then the rate of economic growth will by 12397472.181.

From the partial test of the ATM-debit card variable, a significant value of $0.077 > 0.05$ was obtained. Thus, it can be said that H1 is rejected. From the partial test of the credit card variable, a significant value of $0.454 > 0.05$ was obtained. Thus, it can be said that H2 is rejected. Based on partial variable test e-money obtained a significant value of $0.397 > 0.05$. Thus, it can be said that H3 is rejected. The simultaneous test revealed a significant value of $0.140 > 0.05$. Thus, it can be said that simultaneously H4 states ATM-debit cards (X1), credit cards (X2) and e-money (X3) has an effect on economic growth (Y) is rejected.

The test show that the coefficient of determination (R^2) of 0.477. It was concluded that 47.7% of economic growth variables could be influenced by ATM-debit card, credit card and credit card variable e-money, while 52.3% was influenced by other variables not examined by researchers in this study.

5. DISCUSSION

The use of ATM-debit cards positively and insignificant influence on economic growth. The partial test results show that the significant value of the ATM-debit card variable is $0.077 > 0.05$. Thus, it can be said that H1 which claims that the use of ATM-debit cards influence economic growth in East Java is rejected. The results of this research are in accordance with research conducted by (Dewi & Ayuningsasi, 2020) which found that the use of ATM-debit cards no influence on economic growth.

The use of credit cards negatively and insignificant influence on economic growth. The partial test results show that the significant value of the credit card variable is $0.454 > 0.05$. Thus, it can be said that H2 which states that the use of credit card influence on economic growth in East Java is rejected. This research is in accordance with research conducted by (Aprilia, 2022) which found that the use of credit cards no influence on economic growth.

Use e-money negatively and insignificant influence on economic growth. The t test results show a significant value for the e-money variable of $0.397 > 0.05$. It can be concluded that H3 states usage e-money influence on economic growth in East Java is rejected. This research is in accordance with research conducted by (Pertiwi & Marna, 2023) which found that the use of e-money insignificant effect on economic growth.

Use of ATM-debit cards, credit cards and e-money simultaneously positively and insignificant influence on economic growth. The f test show a significant value of $0.140 > 0.05$ so it can be said that the use of ATM-debit cards, credit cards and e-money has an insignificant influence on economic growth in East Java. Thus, H4 states the use of ATM-debit cards, credit cards and e-money simultaneous influence on economic growth in East Java is rejected.

6. CONCLUSION

Based on the previous chapters, the following are the conclusions of this research: 1. From the test results, it was found that partial use of ATM-debit cards had a positive and insignificant influence on economic growth in East Java; 2. from the test results, show that the use of credit cards partially negatively and insignificant influence on economic growth in East Java; 3. From the test results obtained that use e-money partially negatively and insignificant influence on economic growth in East Java; 4. from the test results, show that the use of ATM-debit cards, credit cards and e-money simultaneously or together positively and insignificant effect on economic growth in East Java.

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