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The Effect of E-Money on the Money Supply andInflation di Indonesia Year 2019-2021

Yani Mulyani[1], Istamkhuja Olimovich Davronov[2]
[1]STIAMI Institute of Social Sciences and Management, Indonesia
[2] Bukhara state University, Uzbekistan
Correspondent: yanimulyani@gmail.com[1]

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ABSTRACT: This study aims to examine the results of data on the effect of e-money on the money supply and inflation in Indonesia in 2019-2021. In this study, researchers used a quantitative approach. The data used in this study are secondary data. Sample determination is carried out by purposive sampling method. The data processing technique used is a multiple linear regression method using the eviews application. The results of this study show that E-money has a significant positive effect on the variables of Money Supply and Inflation, and the Money Supply has a significant positive effect on the variable Inflation.

Keywords: E-Money, Inflation, Money Supply

INTRODUCTION

The development of the current era of globalization is very rapid, one of which is the payment system. The development of increasingly advanced technology, payment instruments have developed from cash payment instruments to non-cash payment instruments. Non-cash payments consist of various bases, ranging from card-based transactions to electronic network-based. In its development, card-based non-cash payment instruments and electronic networks. Electronic network-based cashless payment systems are known as electronic money (e-money).

In Indonesia, e-money has the potential to replace the role of cash in retail transaction payments. In Bank Indonesia Regulation No. 7/52/PBI/2005, electronic money is included in Card-Based Payment Instruments (APMK), namely credit cards, debit cards, and ATM cards. The development of the era of e-money payments can not only use cards but also use digital money / applications (Kalam, 2021).

Electronic money or e-money was first released in Indonesia in 2009 or about 13 years ago. Marked by the issuance of Bank Indonesia Regulation No.11/12/PBI/2009 dated April 13, 2009 related to electronic money (E-money) by Bank Indonesia. In Indonesia itself there are 2 types of electronic money payments recognized by Bank Indonesia. The first type is card-based using chips such as brizzi and flash. Then the second is in the form of applications, such as ovo, gopay and dana (Fastpay, 2020, The development of e-money in Indonesia).

CHIP	APP/E-WALLET
Brizzi (BRI)	**OVO**
Flash (BCA)	**FUNDS**
Tap Cash (BNI)	**GO-PAY**
E-money (Mandiri)	**JUST LINK**
	Doku Wallet
	Shopeepay

Table 1 Examples of Electronic Money Payment in Indonesia

The use of e-money as a means of payment has benefited various parties, including consumers who can make payments more effectively, and efficiently. In particular, the use of e-money also provides advantages especially for micropayments and retail. The issuance of this e-money can act as a factor that can change the function of money demand and reduce the amount of currency in circulation. With the circulation of e-money, currency circulation will be increasingly privatized (Kemenku, 2018, It is time to switch to e-money payment instruments today). This is because the dominance of state money will be threatened by the circulation of e-money (non-cash payment system). Therefore, the government in this case in particular will have little choice in implementing policies if it wants to continue its responsibility for macroeconomic performance that they have and will complete, unless the government wants to find new policy instruments that they will implement in Indonesia (Kemenku, 2018, It is time to switch to e-money payment instruments today).

2019 is a year where covid 19 spreads very quickly, so cash payments are not recommended because it can cause the spread of covid 19. Finally, every government purchase is recommended using electronic money. After that, eat a lot of electronic money that has sprung up that makes it easier for people / customers to sell / buy either directly or online.

Bank Indonesia (BI) noted that digital economic and financial transactions developed rapidly during the Covid-19 pandemic. This is in line with the increasing lifestyle of people in online shopping. BI Governor Perry Warjiyo said that until November 2021, the value of electronic money transactions was recorded at IDR 31.3 trillion. "In November 2021, the value of electronic money transactions grew 61.82 percent (on an annual basis)," he said in a virtual press conference, Thursday (16/12/2021). In addition, BI also recorded the value of digital banking transactions reaching Rp 3,877.3 trillion. The value of digital banking transactions increased 47.08 percent on an annual basis. In terms of cash, currency in circulation in November 2021 increased 7.81 percent to reach IDR 867.8 trillion (kompas, 2021, soared 618 percent in electronic money transactions to reach IDR 313 trillion).

In Indonesia, there are two types of electronic money, first chip-based electronic money or cards. The second is server-based or application-based electronic money. Digital money through this smartphone application is commonly known as a digital wallet. Both types of electronic money continue to increase, both in terms of users, and the number of transactions. Referring to data released by Bank Indonesia, electronic money transactions until June 2019 reached Rp 11.87 trillion (Wikipedia, 2019).

This figure has increased dramatically by 242% compared to the same period last year of Rp 3.46 trillion. In February 2019, BI released data that electronic money grew by 66%. BI noted that currently there are 37 electronic money, both from chip-based types of electronic money and servers or applications (Wikipedia, 2019).

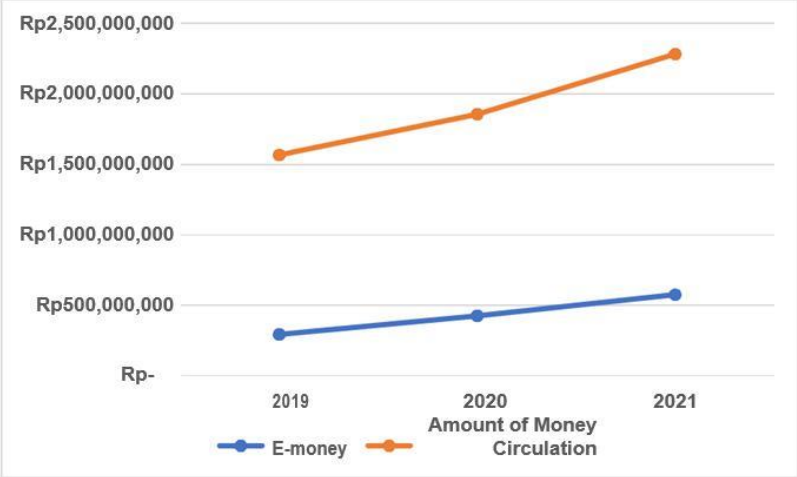

Figure 1 Total E-money Circulation and Money Supply from 2019 – 2021

Source : Bank BI

Year	Inflation
2019	2,72 %
2020	1,68 %
2021	1,87 %

Table 2 Total inflation from 2019 – 2021

But behind the convenience for the public there is also a negative impact of the use of electronic money, for example, due to the high public demand for electronic money, it can be a trend for cyber criminals to commit fraud. For example, data theft, theft of money through the balance contained in it. In addition to crime, for the economy there is a negative impact that causes inflation, although it does not directly cause inflation. As a user, you must wisely use this electronic money to avoid negative impacts and risks that occur in the future.

Uang circulating is a means of payment used by the public in transactions before the existence of this electronic money. Usually, the development of the money supply is in line with economic development. In this condition, it shows that when the economy grows and develops, the money supply will increase. Therefore, inflation must be controlled so that hyperinflation does not occur which will change and disrupt the economic system in Indonesia.

According to the results of Purba's research (2019), research shows that partially or simultaneously, electronic money, APMK and the number of EDC machines have a significant and positive influence on the circulation of money in Indonesia.

As a result of Abidin's research (2015), the payment system using e-money is a process of modernization of a safe, convenient payment system, This research study focuses on payment system policy with Bank Indonesia which aims to provide information and an overview of electronic money and its emerging impact on policy. This study also analyzes the impact that arises when policies are issued and explains them from a different point of view, namely from the point of view of the community as users of e-money products. E-money itself is the output of economic policy in the payment system which aims to minimize the amount of money entering circulation so that the inflation rate can be controlled by Bank Indonesia. Payment systems using e-money are a process of modernization of safe, convenient, and easy payment systems that have been developed in several countries in the world.

Research conducted by Rahmawati (2020) In 2014-2018 the circulation of money in Indonesia has decreased every year, this indicates that the payment system is not smooth. This study aims to analyze the effect of E-Money on Money Circulation in Indonesia. The data used in this study is time series data, namely 2014 Q1-2018 Q4 with multiple linear regression analysis. The results showed that the amount of electronic money in circulation and electronic money readers had a significant effect on the circulation of money. Meanwhile, Electronic Money Transaction Volume does not have a significant effect on money circulation. Simultaneously, these three independent variables have a significant effect on the velocity of money in Indonesia.

Literature

1) Business Administration

a) Definition of Business Administration

A general understanding of business administration is all related activities within a company with the aim of achieving the targeted profit by the company. Some expert opinions about the definition of business administration, according to Poerwanto (2006: 25) that, "Business Administration is the overall cooperation in producing goods or cooperation in producing goods or services needed and desired by customers to the delivery of these goods or services to customers by obtaining and providing benefits in a balanced, responsible and sustainable manner".

According to Wayong (2004: 12) states that "Business Administration is the entire activity starting from the production of goods and suits until the arrival of these goods and services in the hands of consumers". Handayaningrat (2013) business administration is the process / business activities carried out in the business field in an effort to achieve the goal of seeking profit.

Siagian (2010) suggests that business administration is the entire activity starting from the production of goods or services until the arrival of these goods and services in the hands of consumers

Business administration includes the implementation of management activities ranging from producing a product or service to delivering products or services to customers. Administration is often thought of simply as the job of making reports or letters, but actually more than that, administration includes the coordination of all procedures that allow products or services to be delivered, along with bookkeeping records that can be checked to identify errors or opportunities for improvement.

b. Type of Business Administration

Administration with business / commercial objects (Business Administration) can be divided into:

1) Company administration

Corporate administration is an administrative process applied to a company or private partnership entity. The administrative activities of the enterprise include production, transportation, insurance, banking and other areas. Effective corporate administration is important for the smooth running of the organization.

2) Non-Company / Non-Commercial Administration

Non-commercial administration usually tends towards social-private enterprises, for example social administration of private schools, private hospitals, charities, clubs, and so on. Business administration includes a wide range of work requirements. The basic elements of business administration include:

a) Financial management

Financial management is one of the most important functions in business management that handles resources and finance for the production activities of a company.

b) Human resource management

Human resource management is a management of employees who act as expert workers in their respective fields in a company. Includes the process of planning human resource needs, including recruitment, selection, training and skill development, promotion and transfer, and termination of work. It also covers employee welfare and safety, as well as salary issues. Human resource management is a part of the management process that deals with maintaining human relations and guaranteeing the physical well-being of employees so that they make the maximum contribution to work efficiently.

c) Communication

Communication is the ability of individuals or groups to convey ideas or feelings and is needed to arouse or get a response from others so that they can work together. In a business environment, communication is an applied skill or a technique to obtain cooperation so that an organization is able to work synergistically. Good management is management that can communicate with employees appropriately. A good relationship between employees and management also produces many benefits. New ideas from employees regarding the solution of problems that occur in the company will be easily resolved.

d) Technology management

Technology management is organized into management disciplines that enable organizations to manage their technological fundamentals to create a competitive advantage. Typical concepts used in technology management are technology strategy (logic or the role of technology in the organization), forecasting technology (identification of technologies that may be relevant to the organization, perhaps through technology scouting), technology roadmapping (mapping technology to business and market needs), technology portfolio projects (a set of projects under development) and technology portfolio (a set of technologies used). The role of technology management in an organization is to understand the value of a particular technology to the organization. Continue to develop valuable technology as long as there is value to the customer

and therefore the technology management function in an organization must be able to argue when to invest in technology development and when to back off.

Technology Management can also be defined as, integrated planning design, operation optimization, and control of technology, product processes and services, a better definition would be the management of the use of technology for human benefit.

2)Money

a. Understanding Money

In modern economics, money is something that is available and generally accepted as a means of payment for the purchase of goods and services and other valuable wealth as well as for the payment of debts. Some experts also mention the function of money as a means of delaying payments. Money according to some experts as follows:

Mankiw (2008), Money is a supply of assets that can be immediately used to make transactions, besides that money is everything that can be used or received to make payments for goods, services and debts, money has one fundamental purpose in the economic system, facilitate the exchange of goods and services, shorten the time and effort needed to make trade. According to Hart (2005), is a wealth that is owned to be able to pay off debts in a certain amount and at a certain time as well.

According to Walker (2005), the notion of money in general is all things that can be done by money. In other words, money is money because of its function as money and not because of other functions.

According to Pigou (2006), the notion of money can be defined as everything that is commonly used as a medium of exchange.

b. Money Function

Broadly speaking, the function of money is divided into 2 types, namely the original function and the derivative function of money itself. The original function of money itself is also divided into 3 categories. The first function is money as legal tender. The second original function was as a unit of calculation, and the third original function of money was as a store of value.

There are at least 5 derivative functions of money itself. The first derivative function of money is money as a means of transferring wealth. The second derivative function is money as a tool to drive economic activity.

The third derivative function is money as legal tender. The fourth derivative function is money as a means of debt payment, and the last derivative function of money is money as a means of accumulating wealth.

c. Theory of Value of Money

The Value Theory of money can be divided into two groups, namely: Static Money Theory and Dynamic Money Theory. Static Money Value Theory, also called Static Qualitative Theory, focuses on answering the question: what is money? And why does money have a price? and questions relating to the money supply. This theory does not question the value of money caused by economic development.

1) Static Money Theory, consisting of:

a) Theory of Metallism, this theory explains that money is like goods, its value is not artificial, but equal to the value of the raw materials used to make the money, such as gold and silver.
b) Convention theory, this theory explains that money is created on the basis of consensus (convention) of society to facilitate the exchange of goods and services in the economy.
c) Nominalism theory, this theory explains that money is accepted by society because money has purchasing power.
d) State Theory, this theory explains that the origin of money is because a country establishes an object that is imposed as a medium of exchange and a medium of payment. This means that money has value because of the legal certainty of the country in the form of currency laws.

2) Dynamic Theory of Value of Money,

This group of theories explains the causes of changes in the value of money. This group of theories includes:

a) Quantity Theory (David Ricardo)

This theory was developed by David Ricardo who explained that the strength or weakness of the value of a currency depends on the money supply. For example, if the amount of money increases by 2%, then the value of money will decrease by 2%, and vice versa. That is, there is a direct relationship between changes in the money supply and increases in general prices (inflation).

b) Quantity Theory of Money (Irving Fisher)

The Quantity Theory of Money developed by Irving Fisher is a development of the Quantity Theory compiled by David Ricardo, this theory was refined by Irving Fisher by including elements of the speed of circulation of money, goods and services as factors that affect the value of money. This theory explains the relationship between the money supply and changes in the value of money (inflation). This theory is the basic theory of the study of the transmission mechanism of monetary policy in the money channel (monetarist channel). This theory holds that the mechanism of transmission of monetary policy is direct, the amount in circulation and its growth are the main causes of inflation (Marshall and Swanson, 1980; 370)

3)Electronic Money

a. Understanding Electronic Money

Electronic money is defined as a means of payment in electronic form where the value of money is stored in certain electronic media. Users of this electronic money must first deposit into the issuer who collects this money in electronic media, usually in the form of chips and after that it can be topped up. The use of electronic money is increasingly becoming a trend for people today who prefer the convenience of transacting without money in physical or cashless form. Currently, many have used transactions using electronic money, even the use of electronic money has been replaced by digital wallets that make transactions easier.

Definition of Electronic Money (E-Money) Electronic money according to Bank Indonesia Regulation No.20/6/PBI/2018 concerning electronic money is a payment instrument that meets the following elements: a. Issued on the basis of the value of money deposited in advance to the issuer. b. The value of money is stored electronically in a server or chip. c. The value of electronic money managed by the issuer is not a deposit as referred to in the Law governing banking.

According to Rivai (2001) electronic money is an electronic payment instrument obtained by depositing a certain amount of money directly with the issuer, either directly, or through issuing agents, or by debiting an account at a bank, and the value of the money is entered into the value of money in electronic money media, expressed in units of Rupiah, which is used to make payment transactions by directly reducing the value of money in electronic money media aforementioned.

Meanwhile, according to Hidayati (2006: 4) the definition of electronic money (e-money) refers to the definition issued by the Bank for International Settlement defines electronic money as "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" (storedvalue or prepaid products where a certain amount of money is stored in an electronic medium owned by someone).

b. Characteristics of Electronic Money (E-Money)

According to Bank Indonesia (2006), in general, e-money features have several characteristics, including the following:

1) The value of money has been recorded in e-money instruments, or often referred to as stored value, which will decrease when consumers use it to make payment transactions.
2) The funds recorded in e-money are entirely in the control of consumers.
3) At the time of transaction, the transfer of funds in the form of electronic value from the consumer's e-money to the merchant terminal can be done offline. In this case, verification is simply done at the merchant level (point of sale), without having to go online to the issuer's computer

c. E-money function

1)Provide Convenience

By using e-money, the ease of transactions is increasing. You just need to give the card at the checkout, and payment takes place immediately. Unlike the use of debit cards. If you have a debit card, you need to enter a pin for transactions. However, by using e-money, the cashier simply attaches the card to the machine and the transaction is processed.

2)No Waiting for Change

By using e-money, you can pay for the total shopping according to the calculation. That way, you won't wait for change after shopping. In addition, it can minimize the amount of change in your wallet or pocket.

3)Easy to Apply

As discussed earlier, e-money can be used for various transactions such as transportation payments, toll payments, daily shopping at minimarkets or supermarkets, parking, even to buy fast food. All can be done using e money.

4)Money Supply (JUB)

a. Definition of Money Supply (JUB)

Currency in circulation is a number of money issued and circulated by the Central Bank where the currency in circulation consists of two types, namely metal money and paper money or commonly called currency currency. While all money supply in the economy is the amount of currency plus

giral money in the umum bank. Money is divided into 2, namely money in the narrow sense (M1) and money in the broad sense (M2). Money in the narrow sense is currency plus giral money which includes the balance of the general public stored in banks. While money in a broad sense is M1 plus time deposits and savings balances belonging to the public at banks.

According to Rosyidi (2009) money supply or money supply (JUB). In English-language literature, this supply is called money supply (Ms or M). Economists have attempted to define this money supply and examine the components or elements that make it up. At 7 generally, they look at that amount of money supply gradually. At first they saw the elements that were easiest to use as a means of payment, then moved on to the more difficult ones.

According to Boediono (2014: 86), "the first understanding of money in circulation is all currency and giral money available for public use". Cash is cash (issued by the government or central bank) that is directly under the power of the public (general) to use it. While giral money is the entire value of current account balances (current accounts) owned by the public at commercial banks. This balance is part of the money in circulation because at any time the owner can use it for needs. In monetary economics literature, this definition is called money supply in the narrow sense or narrow money.

Macroeconomics (2004: 197), the money supply can be interpreted as: "The main monetary concept is transaction money or in the narrow sense M1, which is the sum of metal and paper currencies in circulation outside the bank, plus current accounts. But it refers to broad money (M2), including assets such as savings accounts in addition to metal and paper currencies, and time deposits".

b. Factors affecting JUB

According to Nopirin (2009, p. 98) the factor affecting the money supply is inflation. The money supply is largely determined by its level 10 output. He then developed an equation written as follows: MxV = PxY. Where M is the amount of money, V is the velocity of money circulation, P is the price level, and Y is real GDP. So, if nominal GDP (P x Y) is 5 trillion a year, the speed of money is 5, then the money supply is 1 trillion rupiah. This finding was then further developed and analyzed by classical economists who then gave rise to a theory called the quantity theory of money. When explaining the relationship between the money supply and inflation, this theory states that price movements (inflation) are caused only by changes in the money supply. Assuming that the speed of money circulation is (M) and real GDP (Y) is fixed, the growth of the money supply (M) will directly affect price increases/inflation (P). Thus, according to this theory, if the money supply increases by 5 percent, there will be an increase in prices (inflation) by 5 percent as well (Nopirin. 2009, p. 98). Sunariyah (2006, p. 105) suggests that if the interest rate increases, the amount of savings will also increase. Because the interest rate is expressed as a percentage of the principal money per unit of time. This is very logical because interest is an attraction so that people who are excess funds will save and a measure of the resources used by debtors paid to creditors. The government can utilize interest rates to control the money supply. That is, the government can 11 regulate the circulation of money in an economy. Interest rates can be used as a monetary tool in order to control bidders.

c.Indicator JUB

Indicators of money supply according to Raharja and Manurung (2008: 324)

1) The money supply in the narrow sense (M1) is the money supply consisting of currency and giral money
2) The money supply in the broad sense (M2) is the money supply consisting of currency and giral money plus quasi-money

5) Inflation

a. Definition of Inflation

Inflation is an increase in the price of goods that are general and occur continuously in a certain period Ambarini (2017, 201). In addition, inflation can also be interpreted as a general and continuous increase in prices within a certain period of time (Bank Indonesia website 2020). According to classical monetary theory, inflation occurs due to an increase or increase in the money supply in society (Ambarini 2017, 205).

According to Boediono (2014: 155) a brief definition of inflation is as follows: "Inflation is the tendency of prices to rise generally and continuously. The increase in the price of just one or two goods is not called inflation. The condition of a continuous upward trend also needs to be underlined. Increases in prices due, for example, to seasonality, the eve of holidays, disasters, etc., which are only temporary in nature are not called inflation, unless the increase is widespread or results in an increase in other goods". Sukirno (2002: 15) explained the definition of inflation is "a process of increasing prices that prevail in an economy".

While Harsono (2000: 2) argues that, "inflation is an increase in the price of the level of goods that does not affect one's income at all". So, inflation is a general increase in prices, or inflation can also be said to be a decrease in the purchasing power of money. The higher the price increase, the lower the value of money. Inflation is one of the risks that must be faced by humans who live in a money economy, where the purchasing power that exists in money over time erodes.

B. Types of Inflation

According to Sutedi (2012), "inflation is caused by an increase in demand and an increase in production costs". Further explanations for the causes of such inflation are as follows:

1). Inflation due to Demand Pull Inflation

Inflation like this occurs due to an increase in demand for certain types of goods. In this case, public demand increases in aggregate (aggregate demand). This increase in demand can occur due to increased spending on the government, increased demand for goods for export, and increased demand for goods for the needs of 21 private companies. This increase in aggregate demand causes prices to rise due to fixed supply.

2). Cost Pull Inflation This kind of inflation occurs due to an increase in production costs. The increase in production costs occurs due to the increase in raw material prices, for example because of the success of trade unions in raising wages or because of the increase in fuel prices. Increased production costs cause prices to rise and inflation occurs.

3. Inflation due to the Increase in Money Supply

This theory was proposed by the classicists who said that there is a relationship between the money supply and prices. If the quantity of goods is fixed, while the money supply doubles, the price will

double. An increase in the money supply can occur, for example, if the government uses a deficit budget system. The budget shortfall was covered by printing new money which caused prices to rise.

c. Inflation Indicators

Aprice index is the weighted average of the prices of a number of goods and services. In compiling price indices, economists weigh individual prices according to the economic importance of each item The most important price indices (indicators) of inflation according to Samuelson and Nordhaus (2004: 118), are:

1). The Consumer Price Index (CPI) Consumer Price Index measures the cost of purchasing a standard basket of goods at different times. Market baskets include the prices of food, clothing, housing, fuel, transportation, medical care, tuition, and other goods and services purchased for daily living.

2). Gross Domestic Product (GDP) Deflator Gross Domestic Product (GDP) The Gross Domestic Product deflator is the price of all goods and services produced within the country (consumption, investment, government spending and net exports).

3). The Producer Price Index (PPI) / Large Trade Price Index (IHPB) The Large Trade Price Index measures the price level at the wholesale or producer stage. The index is based on approximately 3400 commodity prices, and mining products. The fixed scale used to calculate the CPI is the net sales of each commodity. Because of its large detail, this index is widely used by businesses

The focus of this research discussion is to analyze the effect of E-Money on the money supply (M2) and inflation in Indonesia for the period 2019 - 2021.In this study, it is suspected as follows

1) The Effect of E-money on the Money Supply Ancient theory, 2019 with research results The results showed that partially or simultaneously, electronic money, APMK and the number of EDC machines have a significant and positive influence on the circulation of money in Indonesia.
2) The effect of e-money on inflation Kalam theory, 2021 with the results of E-money on inflation has no significant effect.
3) The Effect of Money Supply on Inflation in Kalam, 2021 research by JUB has a significant influence on inflation in Indonesia

METHOD

This study used a quantitative descriptive approach. The descriptive research method according to (Sugiyono, 2018) is a study conducted to determine the value of independent variables, either one or more variables (independent) without making comparisons or connecting with other variables. This means that this study only wants to know how the state of the variable itself without any influence or relationship to other variables such as experimental research or correlation). Researchers used the place and time of the study, namely Indonesia with a range of data from each variable, namely the month from January 2019 to December 2021.

According toBungin (2015, pp. 48-49) quantitative descriptive research is a method used to describe, explain, or summarize various conditions, situations, phenomena, or various research variables according to events as they are that can be photographed, interviewed, observed, and can be expressed through documentary materials.

This research was obtained from secondary data in the form of reports from Bank Indonesia. The report that has been reprocessed then the results will be explained again in the pressat the end of the study will be analyzed to test the initial hypothesis of this study).

RESULT AND DISCUSSION

A. Overview of the Research Object

E-money Release History, Electronic money or e-money was first released in Indonesia in 2009 or about 13 years ago. Marked by the issuance of Bank Indonesia Regulation No.11/12/PBI/2009 dated April 13, 2009 related to electronic money (E-money) by Bank Indonesia. In Indonesia itself there are 2 types of electronic money payments recognized by Bank Indonesia. The first type is card-based using chips such as brizzi and flash. Then the second is in the form of applications, such as ovo, gopay and dana (Fastpay, 2020, The development of e-money in Indonesia). There are several differences between chips and applications as follows:

1.The first difference is in its shape. E-money is in the form of chips planted on cards or other media. In other words. E-money uses chip based. Meanwhile, digital wallets or e-wallets in the form of electronic money that reside on servers or in other words server based. So, in its use, it must first be connected to the publisher server.

2.The second difference is in the range of use of both. Electronic money that is generally in the form of cards, such as Danamon Flazz, is used in everyday transactions. For example, to pay for toll roads, pay for public transportation tickets, purchases at retail outlets, and payment for tourist attraction tickets. While digital wallets are used for online and offline shopping, paying electricity tokens, BPJS bills, cable TV bills, and so on.

3.The third difference is in the maximum balance amount between the two. In e-money, you can only top up a maximum balance of Rp1 million. As for digital wallets, the maximum balance can reach Rp10 million. However, both e-money and e-wallet topping up balances can be done at EDC machines, ATMs, internet banking, mobile banking, and retail outlets.

4.The fourth difference between electronic money and digital wallets lies in their security features. E-money does not have security features so it can be used easily by others. However, in e-wallets, there are security features in the form of activation of the user's mobile number and pin .

Era		**YEAR**	
	2019	**2020**	**2021**
January	173,825,919	313,785,298	442,612,567

February	189,222,546	319,294,014	456,736,475
March	199,174,153	330,391,364	470,811,351
April	197,413,945	412,055,870	483,354,024
May	198,790,786	346,881,617	498,202,416
June	209,891,847	353,587,670	511,254,525
July	232,348,971	359,670,019	495,280,424
August	250,477,938	376,142,547	513,968,693
September	257,078,749	393,904,001	530,664,510
October	269,340,218	410,656,671	544,192,781
November	277,925,012	420,412,942	558,959,664
December	292,299,320	432,281,380	575,323,419

Table 3 E-money data used for research

Source : Bank Indonesia

Era	**YEAR**		
	2019	**2020**	**2021**
January	1,376,136	1,484,403	1,762,295
February	1,386,329	1,505,491	1,784,763
March	1,428,607	1,648,681	1,827,391
April	1,454,279	1,576,401	1,850,950
May	1,508,040	1,653,610	1,861,766
June	1,513,520	1,637,750	1,915,429

July	1,487,802	1,683,193	1,933,291
August	1,475,544	1,759,639	1,938,389
September	1,563,602	1,780,721	1,968,434
October	1,504,156	1,782,244	2,071,417
November	1,553,134	1,799,087	2,114,703
December	1,565,358	1,855,624	2,282,106

Table 4 Money Supply Data used for research (units of billion)

Source : Bank Indonesia

Era	**YEAR**		
	2019	**2020**	**2021**
January	2.82 %	2.68 %	1.55 %
February	2.57 %	2.98 %	1.38 %
March	2.48 %	2.96 %	1.37 %
April	2.83 %	2.67 %	1.42 %
May	3.32 %	2.19 %	1.68 %
June	3.28 %	1.96 %	1.33 %
July	3.32 %	1.54 %	1.52 %
August	3.49 %	1.32 %	1.59 %
September	3.39 %	1.42 %	1.6 %
October	3.13 %	1.44 %	1.66 %
November	3%	1.59%	1.75%
December	2.72 %	1.68 %	1.87 %

Table 5 Inflation Data used for research

Source : Central Bureau of Statistics

B. Research Results

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1066294.118	39381.640		27.076	.000
	e-money	.002	.000	.946	16.987	.000

Figure 2 Path Coefficient model I (e-money to JUB)

Data Analysis: From the results of the regression output of model I, in the coefficient table it is known that the signification value of the two variables is X = 0.000. The HasiL significance of both variables is less than 0.05. These results conclude that in Regression Model 1, variable X has a significant effect on Y1

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.946[a]	.895	.891	72915.22002

a. Predictors: (Constant), e-money

Figure 2. Summery Model Model I (e-money against JUB) Furthermore, the R Square value in the Model Summary table is 0.895. This shows that the contribution or contribution of X's influence on Y1 is 89.5%, the rest is influenced by other variables that are not included in this study. The value of e1 can be calculated by means of e1 = √1 − 0.895 = 0.324 With that obtained diagram structure 1 as follows:

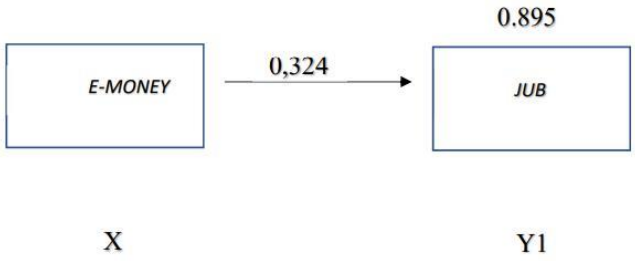

Figure 3 Diagram of the structure of the Line Coefficient model I (e-money to JUB)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4.023	.245		16.423	.000
	e-money	-4.913E-9	.000	-.801	-7.789	.000

a. Dependent Variable: inflasi

Figure 4. Model II Line Coefficient (e-money to inflation)

Data Analysis :

From the results of the regression output of model II, the coefficient table can be known the value of variable significance, namely X = 0.000. The HasiL significance of variable X is less than 0.05. These results conclude that in Regression Model II, variable X has a significant effect on Y2.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.801[a]	.641	.630	.45357

a. Predictors: (Constant), e-money

Figure 5. Model Summary Model II (e-money to inflation)

Furthermore, the R Square value obtained in the Model Summary table is 0.641. This shows that the contribution or contribution of X's influence on Y2 is 64.1%, the rest is influenced by other variables that are not included in the study. The value of e2 can be calculated by means of e1 = $\sqrt{1 - 0.641} = 0.599$ Thus obtained structural diagram 2 as follows:

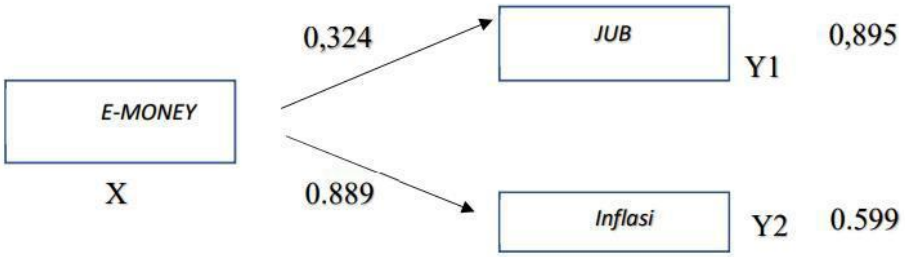

Figure 6 Diagram of the Structure of the Line Coefficient model II (e-money to Money Supply and inflation)

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	6.496	.659		9.853	.000
	JUB	-2.518E-6	.000	-.747	-6.557	.000

a. Dependent Variable: inflasi

Figure 7 Model III Line Coefficient (Money Supply to inflation)

Data Analysis :

From the results of the regression model III output, the coefficient table can know the value of the significance of the variable, namely Y2 = 0.000. The HasiL significance of the variable Y2 is less than 0.05. These results conclude that in Regression Model II, the variable Y1 has a significant effect on Y2.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.747[a]	.558	.545	.50294

a. Predictors: (Constant), JUB

Figure 8 Model Summary Model III Line (Money Supply to inflation)

Furthermore, the R Square value obtained in the Model Summary table is 0.558. This shows that the contribution or contribution of the influence of Y1 to Y2 is 58.8%, the rest is influenced by other variables that are not included in the study. The value of e2 can be calculated by means of e3 = √1 − 0.558 = 0.664 Thus obtained structural diagram 3 as follows:

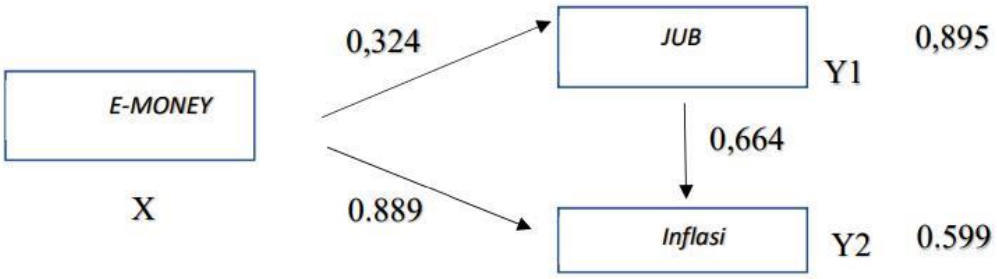

Figure 9 Diagram of the Structure of the Line Coefficient model III (e-money to Money Supply and inflation)

C.Discussion

1. Analysis of the effect of X1 on Y1: from the results of the analysis obtained X1 values of 0.000 < 0.05. So it can be concluded that there is a direct significant influence of the variable X1 on Y1. (H1 accepted).
2. Analysis of the effect of X1 on Y2: from the results of the analysis obtained X2 values of 0.000 < 0.05. So it can be concluded that there is directly a significant influence of the variable X2 on Y2. (H1 rejected).
3. Analysis of the effect of Y1 on Y2: from the results of the analysis obtained X2 values of 0.000 < 0.05. So it can be concluded that there is asignificant influence of the variable Y1 on Y2. (H1accepted) .

CONCLUSION

Based on the results of the analysis and hypothesis test in research on the Effect of E-money on the Money Supply and Inflation in Indonesia in 2019-2021 using SPSS. It can be concluded that the three hypotheses in this study are acceptable. Here are the conclusions in this study:

1. The E-money variable has a significant positive effect on the Money Supply variable. This result shows that if the use of E-money has an impact of 89.5% on the Money Supply.
2. The E-money variable has a significant positive effect on the Inflation variable. This result shows that if the use of E-money has an impact of around 64.1% on inflation.
3. The Money Supply variable has a significant positive effect on the Inflation variable. This result shows that if the spread of money supply has an impact of around 55.8% on inflation

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