

# Impact of E-Money Policies in Indonesia as New Payment System Tool

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**ABSTRACT:** *This research study focuses on a payment system policy by Bank of Indonesia that aims to provide information and an overview of e-money and the impact that appears on the policy. This study also analyzes the impacts which arise when the policy is issued and menjelaskan from a different point of view, namely from the point of view of society as a user of the e-money products. E-money itself is the output of economic policy in the payment system which aims to minimize the amount of money in circulation so that the rate of inflation can be controlled by Bank Indonesia. Payment systems using e-money is a process of modernization of the payment system that is safe, convenient, and easy which has been developed in several countries in the world.*

**KEYWORDS:** *e-money, economic policy, payment system.*

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## I. INTRODUCTION

Along with the progress of the times, technology and information systems are also developing in society, making it easier for humans in their daily life activities. The development of technology and information is not only used for the needs of the world of education, but also in the economic field. Currently, many economic activities take advantage of sophisticated information technology to facilitate the public, such as online buying and selling transactions, mobile transfers, or also payments for purchases and bills through online credit or debit card services provided by banks. Technological developments have brought a change in people's needs for payment instruments that can meet speed, accuracy and security in every electronic transaction. History proves that the development of payment instruments continues to change in form, starting from metal forms, conventional banknotes, until now payment instruments have evolved in the form of data that can be placed in a container or are called electronic payment instruments (Adiyanti: 2015).

In its development, electronic payment systems or what can be called non-cash are heavily influenced by advances in technological developments and changes in people's lifestyles. At present the development of non-cash payment instruments is progressing very rapidly in line with the development of payment system technology which has recently had a major impact on the parties involved in the payment system. With the support of increasingly advanced technology, users and service providers of non-cash payment systems are continuously looking for alternative non-cash payment instruments that are more efficient and secure. In addition, changes in people's lifestyles accompanied by increased efficiency in lifestyles require the availability of telecommunication and transportation facilities that are so fast that distance and time barriers can be reduced. The development of telecommunications and transportation has also had a major impact on financial transactions, especially those related to the way parties make payments.

Based on Law Number 3 of 2004 concerning Bank Indonesia, one of the authorities of Bank Indonesia in the context of regulating and maintaining the smooth operation of the payment system is to determine the use of payment instruments. The determination of the use of payment instruments is intended so that the payment instruments used in society meet the security and efficiency requirements of their users. Technological developments in the field of information and communication have had an impact on the emergence of new innovations in electronic payments. In facing the development of the national economy which is constantly moving fast, competitive and integrated with increasingly complex challenges and an increasingly advanced financial system, it is necessary to adjust policies in the economic sector, including finance. In view of these conditions, Bank Indonesia as Indonesia's central bank, which has the task of determining monetary policy and regulating the payment system, issued a payment system policy through e-money as stipulated in Bank Indonesia Regulation No. 16/08/PBI/2014.

In the provisions of Bank Indonesia Regulation Number 11/12/PBI/2009 concerning Electronic Money (e-money) in the provisions of Article 1 Paragraph 3, "Electronic Money is a means of payment issued on the

basis of the value of money deposited in advance by the holder to the issuer" money is stored electronically in a media server or chip that is used as a means of payment to merchants who are not issuers of said electronic money. The value of electronic money deposited by the holder and managed by the issuer is not a deposit as referred to in the law that regulates banking. The initial purpose of using e-money is for practicality, only one press of the transaction is successful, besides that there is no need to carry cash if you want to buy something. However, basically e-money does not aim to completely replace the function of cash. E-money card holders should choose an e-money card according to their needs. This is because there are many e-money cards on the market and offer different payment facilities. In addition, not all merchants can accept payment transactions via e-money. In other words, there is no e-money card that can meet all needs.

With the existence of an e-money policy implemented by Bank Indonesia, of course there will be an impact on the economic sector, especially those that will emerge in the future. It will be interesting to see what impact will occur later if Indonesia fully implements the e-money policy. With the existence of non-cash payment instruments such as e-money which is part of the new payment system policy by Bank Indonesia, it will be able to optimize people's purchasing power which at the same time has an impact on increasing the country's economy. Because e-money itself provides convenience and security for the community, in this case as e-money users, one of the conveniences and security provided is that people do not need to carry large amounts of cash directly for transactions. This makes people comfortable and safe. This is the advantage of e-money compared to other payment instruments.

Even though it is relatively still in its early development stage, e-money has the potential to shift the role of cash for retail payments because retail transactions can be carried out more easily and cheaply for both consumers and merchants. The development of e-money in various countries has given rise to various issues regarding the implications of e-money development for Central Bank policies, especially those related to the payment system oversight function and the effectiveness of monetary policy (Anita: 2013). Unlike credit cards or debit cards, e-money cards do not require data confirmation or PIN (Personal Identification Number) authorization when used as a means of payment and are not directly related to the customer's account at the bank. This is because e-money is a stored value product where a number of monetary values have been recorded in the means of payment used. This allows the card to be transferred and can be used by anyone as long as the balance is sufficient. This can be dangerous because if the e-money card is lost, the remaining balance can be used by someone else. In fact, e-money with a value that can be topped up or refilled is not included in the bank's inventory as one of the institutions that issue this product. This means that if the theft or use of an e-money card that is not the cardholder cannot be traced and the card cannot be blocked.

Examples of existing e-money products issued by issuers approved by Bank Indonesia include Flazz Cards from BCA, e-money cards from Bank Mandiri, Bank Mega e-money cards, Brizzi cards from BRI, besides that there are also e-money cards. Apart from that, there is also e-money in the form of an application, such as t-cash from Telkomsel, XL Tunai from XL Axiata, and Dompotku from Indosat. What should be observed together from Bank Indonesia's policy regarding e-money is whether the policy can truly be effective and efficient in its implementation, namely that it can provide convenience for consumers so that their purchasing power is optimal and safe. This policy can also be seen as a strategy from the government and Bank Indonesia to control inflation and regulate the amount of money in circulation as well as deal with redenomination policies that have not received a good response from the public. This study aims to dig up information regarding the effectiveness of the e-money policy issued by Bank Indonesia in carrying out its duties to regulate the monetary sector and regulation of effective payment systems in today's modern economy. The expected benefit of this research is that readers can find out the advantages of using e-money and the reasons Bank Indonesia issued this policy so that readers can find out the impact that can occur on the implementation of Bank Indonesia regulations regarding e-money.

## **II. LITERATURE REVIEW**

### **Electronic Money**

The Bank for International Settlements (BIS, 1996) defines e-money as a stored-value or prepaid card product in which a monetary value is stored electronically in an electronic device. Electronic value can be obtained by depositing a certain amount of cash or by debiting the account at the bank and then storing it in the electronic equipment that belongs to him. With this equipment, the owner can make payments or receive payments, where the value will decrease when used to make payments or increase when receiving payments or when refilling. The definition of e-money is more focused on a type of prepaid card that can be used for various payment purposes (multi-purpose) not on a single prepaid card that can only be used for certain purposes, such as telephone cards as applicable in Indonesia.

Rivai (2001) in Bahri (2010) explains that electronic money is an electronic payment instrument that is obtained by depositing a sum of money in advance to the publisher, either directly or through issuing agents or by debiting an account at the bank, and the value of that money is entered into the value of money in electronic

money media, which is expressed in units of Rupiah, which is used to make payment transactions by directly reducing the value of money on the electronic media. In Bank Indonesia Regulation No. 11/12/2009 PBI concerning e-money, that what is called e-money is a means of payment that fulfills the elements: (a) issued on the basis of the value of money deposited in advance by the holder to the issuer, (b) the value of money is stored electronically in a medium such as a chip or server, (c) used as a means of payment to traders who are not issuers of the electronic money, (d) The value of electronic money deposited by the holder and managed by the issuer is not a deposit as explained in the Banking Law.

Through Bank Indonesia circular letter no 11/11/DASP dated 13 April 2009 concerning types of electronic money, namely on Table 1.

Table 1. Similarities and Differences in the Types of Electronic Money (E-Money)

Similarities and Differences	Registered	Unregistered
1. Registration of Identity Holders	The electronic money cardholder's identity data is recorded and registered with the issuer.	The electronic money cardholder's identity data is not recorded at the issuer / does not have to be a customer of the issuer.
2. Stored e-money value	The maximum value limit for electronic money stored in chip/server media is Rp. 5,000,000,-	The maximum value limit for electronic money stored in chip/server media is Rp. 1,000,000,-
3. Transaction value limit	In 1 month for each electronic money as a whole it is determined that the maximum number of transactions is Rp. 20,000,000,-	Within 1 month for each electronic money as a whole it is determined that the maximum number of transactions is Rp. 20,000,000,-
4. Transaction types that can be used	Includes payment transactions, fund transfers, and other transaction facilities provided by the Issuer.	Includes payment transactions, fund transfers, and other transaction facilities provided by the Issuer.

Source: Bank Indonesia, 2022

### Payment System

In Law no. 23 of 1999 concerning Bank Indonesia, in article 1 point 6 it is explained that the Payment System is a system that includes a set of rules, institutions and mechanisms used to carry out the transfer of funds to fulfill an obligation arising from an economic activity. The payment system in society must be able to guarantee the implementation of money transfers efficiently and safely so that people feel comfortable in carrying out every transaction in economic activity.

According to Anita (2013) explained that what is meant by electronic payments are payments that utilize information and communication technologies such as Integrated Circuits (IC), cryptography and communication networks. Electronic payments that we know and already exist in Indonesia today include phone banking, internet banking, credit cards and debit cards or ATMs. Even though the technology used varies, all of these electronic payments are always directly linked to the bank customer accounts that use them. In this case, every payment instruction made by a customer, either via phone banking, internet banking, credit card or debit card or ATM, always goes through an authorization process and will be charged directly to the customer's account.

### Bank Indonesia as the Central Bank

Based on Law No. 23 of 1999 concerning Bank Indonesia, it is explained that Bank Indonesia is an independent state institution, free from interference from the government and/or other parties. Bank Indonesia has the goal of achieving and maintaining stability in the value of the rupiah. As a Central Bank that has a strategic role in the economic and monetary fields.

In an effort to realize the goal of achieving and maintaining the value of the Rupiah, Bank Indonesia has the duties contained in the law that Bank Indonesia has the right to establish and implement monetary policy, regulate and maintain the smooth operation of the payment system and regulate and supervise banking. As a strategic institution in the economic sector, Bank Indonesia continues to monitor developments in the national, regional and international economy as a whole. Looking at economic developments in other countries, one of the factors is influenced by arrangements in the payment system. Bank Indonesia itself, in the task of regulating and maintaining the smooth operation of the payment system, has the authority to ensure that the payment system can be properly controlled, namely by determining the use of payment instruments that are legal and recognized by Bank Indonesia and granting approval for permits for the operation of payment systems such as cash and non-cash payment systems.

In addition, there is also the authority to oblige payment system service providers such as banks or other financial institutions to report their business activities and to carry out tasks in the implementation, development and supervision of payment systems. Bank Indonesia has 4 basic principles in the payment system function, namely risk control principles, efficiency, equal access and consumer protection.

### **III. RESEARCH METHODS**

The method applied in this research is descriptive method with a quantitative approach. Descriptive research is a method that aims to obtain an overview or concept in certain situations and conditions (Gursida& Harmon, 2017). This method was chosen in order to get an overview of the trust of e-money users in Indonesia with data obtained through distributing questionnaires. The population in this study is included in the unknown population where the exact number is not known. The research sample was taken using purposive sampling, which is one of the methods used for sampling in a study where there is a consideration in determining it (Sugiyono, 2019). The criteria used in determining this sample were having used any type of e-money, whether server-based or chip-based. In determining the research sample size, the formula proposed by Hair (2006) was used where the number of indicators or statements in the questionnaire was multiplied by 5 to 10. This study had 11 indicators where each indicator was represented by two statements so that the number of samples in this study was 22 times 10, so the number of samples obtained is 220 respondents.

### **IV. RESULTS AND DISCUSSION**

Various economic policies set by the government are aimed at building economic development which can also have an impact on national development. As a country that is in the developing category with a fairly rapid and high growth rate in the economic sector, this economic development cannot be separated from Indonesia's involvement in its participation with countries with large economies in the world such as APEC and the G20 which has made Indonesia begin to be able to compete with other countries. these large and developed countries and are counted in the world economic arena. The growth of the Indonesian economy has also triggered an investment climate which has resulted in the growth of national development. All of these achievements are achievements for Indonesia as a developing country and appreciation should be given to the government and also high state institutions in the economic field that have been able to achieve these achievements.

Indonesia's involvement in world economic forums has also slightly influenced Indonesia's economic policies, one of which is policy regarding the payment system. In Indonesia, the payment system in general still uses cash as legal tender, even though the large amount of money circulating in society can trigger an increase in inflation. So look at the development of payment systems in several other countries such as Japan, Singapore, England and the United States which have already implemented a payment system using a tool called e-money.

One of the goals of making payment system regulations is to provide security and convenience for the public to carry out buying and selling transactions so that no one feels disadvantaged (Anita: 2013). The rules regarding the payment system have been stipulated by Bank Indonesia as the Central Bank which has the authority in this matter. In this case, one of the objectives of implementing a non-cash payment system, especially with e-money as a micro-payment innovation, is to optimize purchasing power and increase public consumption rates. The high number of payment transactions in society makes Bank Indonesia see this as an opportunity for developments in economic innovation in Indonesia (Adiyanti: 2015). From this e-money policy itself, Bank Indonesia can regulate the amount of money in circulation and see developments in the existing inflation rate. Eny Sri Hartati, Executive Director of INDEF (Institute for Development of Economics and Finance), said that the use of electronic money accelerates transactions and trading processes.

In general, e-money policy as a type of non-cash payment model has had several impacts on several sectors such as the economy and monetary, this can happen because the policy issued by Bank Indonesia concerns the payment system and financial transactions that are used by the public so that impact on several economic and monetary fields. The impacts or implications that occur due to the implementation of e-money system policies occur in several legal, technical and operational mechanisms (Adiyanti: 2015). Things that happened after the implementation of e-money were caused by several factors that influenced the development of e-money, these factors made e-money a means of payment that was able to contribute positively to economic development. The factors that influence the development of e-money also have an impact on the e-money that is developed. The

#### **Impact of E-money on Issuers**

Issuers or issuers are parties that make and provide e-money cards, e-money issuers consist of the banking and non-banking sectors. These issuers are legitimate and legal to make e-money because they have obtained permission from Bank Indonesia. Issuers that have been approved by Bank Indonesia can provide e-money cards for the public. With the presence of e-money, the types of non-cash payment facilities provided by banks have also increased, but the public is still not interested and still lacks information about using e-money facilities and this has resulted in the growth of the number of payment instruments using cards or CPI, such as debit cards, credit cards, to increase.

For the community, the CPI (Card Payment Instrument) is a facility that can facilitate transaction processes such as cash withdrawals, transfers and bill payments. CPI provides efficiency benefits in the form of reduced transaction costs for consumers and producers as well as increased public satisfaction due to the fulfillment of the need for easy and practical means of payment. The existence and use of CPI such as e-money can reduce the costs incurred by the public when they have money both for transactions and precautions.

Table 2. The Number CPI Circulating

Period	2018	2019	2020	2021	2022
Credit Cart	13.574.673	14.785.382	14.817.168	15.091.684	16.043.347
ATM Cart	2.766.085	3.623.992	4.533.187	6.292.164	7.189.917
ATM Cart + Debit Cart	48.873.080	59.761.318	73.219.365	83.170.125	98.638.287

Source: Bank Indonesia, 2022

Based on the data in the Table 2, it shows that after e-money became a type of non-cash money, the growth of the CPI has increased in the last 5 (five) years, this shows that people are starting to switch from cash to non-cash, but the emergence of e-money has not directly affected the growth in the number of CPI. The high growth of CPI is due to the increasing awareness and interest of the public who want security, speed and efficiency in their payment transactions. The existence of e-money does not directly affect the growth in the number of CBPIs, because e-money itself is part of a non-cash payment instrument using a card. The increase in consumption and economic growth that occurs from the use of e-money in turn has the potential to stimulate public demand for non-cash money to simplify and speed up the transaction process. For banks or non-cash payment issuing institutions, this is again a potential source of income and profit. This is referred to as a dual effect or multiple impacts from the use of non-cash payment instruments. The multiple impact of using non-cash payments to consumers and entrepreneurs can in turn encourage economic growth (Hidayati: 2006).

#### **Impact of E-money on Traders or Entrepreneurs (Merchants)**

Entrepreneurs or merchants in the e-money system are entrepreneurs or traders who provide payment service facilities using e-money in their payment transactions. Entrepreneurs in this case try to prepare this to increase the effectiveness and efficiency of their business. From the entrepreneur's point of view, increased consumption followed by transaction cost efficiency will increase profits for entrepreneurs which then has the potential to encourage business activity and business expansion. The more efficient the transaction costs obtained from the use of non-cash payment instruments, the greater the potential for increased output. This in turn encourages increased production in the real sector which can boost economic growth.

Technically operational, by using e-money services, entrepreneurs can minimize errors that occur in each transaction and can save time needed in one transaction. The advantage that the entrepreneur gets from each transaction is the security of the money in the transaction because the funds can go directly to the entrepreneur's account. (Hidayati: 2006). Entrepreneurs hope that with the presence of e-money, business effectiveness and efficiency can occur. The expected effectiveness is that the time for payment transactions can be faster or shorter because by using an e-money card, entrepreneurs do not need to provide change and do not need to count money again. In their business, these entrepreneurs do not need to provide cash to serve payments in small or micro amounts (Adiyanti: 2015).

While the efficiency that occurs from using e-money for entrepreneurs is security in each transaction, where entrepreneurs don't need to worry about counterfeit money and when the transaction is complete, the money from the payment will go to the entrepreneur's account connected to the transaction

#### **The Impact of E-money on E-money Card Users (Customers)**

Users or consumers who use e-money, in this case, are people who use e-money in their payment transactions. The convenience provided by e-money means that users do not need to prepare or carry cash anywhere when they go and avoid counterfeit money that might be obtained when making transactions in cash. The use of non-cash payments with e-money in addition to increasing people's income through reducing transaction costs and saving time also increases people's income through interest income obtained from cash funds that should be brought in every transaction but placed in a bank in the form of savings. From the point of view of banks or institutions issuing non-cash payment instruments, increased use of non-cash payments is a fee-based source of income because customers who use non-cash payments will be charged an administration fee each month. In addition, income derived from fees is also obtained from fees charged for certain types of transactions, for example for transfers or bill payments (Hidayati: 2006).



#### IV. CONCLUSION

Of course, all policies that have been prepared by the government are for the common good, in this case Bank Indonesia has tried to create a new payment system innovation using new tools as a manifestation of its duties as an institution that regulates the smooth running of the payment system. In this case, the innovations created by Bank Indonesia by issuing e-money policies have been able to provide many benefits to society and need a lot of support from all parties. However, it is necessary to have an active role from the government to intensify information about this e-money and also support facilities that can support the smooth implementation of this policy. Furthermore, the community as potential users or users of non-cash payment instruments can be wiser in choosing and using payment instruments that suit their needs and functions. The convenience and security that exists in e-money can be an important consideration for the public in choosing e-money as a means of payment. From the various things that have been explained above, it can be concluded that:

1. A payment system was issued to regulate the amount of money in circulation so that it can be controlled properly and prevent the circulation of counterfeit money which is increasingly widespread and with the presence of e-money which has the advantage of being safe, the circulation of counterfeit money can be suppressed.
2. From the new payment system policy, it is expected that Indonesia's economic growth can grow well and economic stability can be maintained because it is easy for people to make transactions.
3. Card-based payment instruments or APMK have become a new trend for payment systems in society, as evidenced by the continued growth in the number of APMK in society.

Departing from the things described above, the researcher suggests that the government and Bank Indonesia jointly activate economic programs in which e-money can be explained so that more and more people know what is called e-money so that the country's economic growth can increase but do not forget to prepare supporting facilities that are evenly distributed in all regions and not only focused on big cities

#### REFERENCES

- [1]. Adiyanti, Arsitalka. 2015. Effect of Income, Benefits, Ease of Use, Promotional Attractiveness, and Trust on Interest in using E-money Services. *Journal of Economics*, University of Brawijaya.
- [2]. Bank Indonesia, 2006. E-money Study Paper, Bank Indonesia, Jakarta.
- [3]. Chandrawati, Ni Nyoman Anita. 2013. Legal Protection for E-money Card Holders as a Means of Payment in Commercial Transactions. *Udayana University Journal of Economics*.
- [4]. Hidayati, Siti et al. 2006. E-money Operational Review. Jakarta: Bank Indonesia.
- [5]. Bank Indonesia Regulation Number 10/8/PBI/2008 concerning Amendments to Bank Indonesia Regulation Number 7/52/PBI/2008 concerning Implementation of Card-Based Payment Instrument Activities.
- [6]. Bank Indonesia Regulation Number 11/11/PBI/2009 concerning Implementation of Card-Based Payment Instrument Activities.
- [7]. Bank Indonesia Regulation Number 14/2/PBI/2012 concerning Implementation of Card-Based Payment Instrument Activities.
- [8]. Bank Indonesia Regulation Number 11/12/PBI/2009 concerning Electronic Money.
- [9]. Rahmatsyah, Deni. 2011. Analysis of Factors Influencing Interest in Using New Products (Case Study: BCA Flazz Card). Master's Thesis in Management Science, University of Indonesia.
- [10]. Law No. 23 of 1999 concerning Bank Indonesia.
- [11]. Yudhistira, Afrizal. 2014. Analysis of Factors Influencing Preference and Accessibility to the use of Electronic Payment Cards. *Journal of Economics*, University of Brawijaya.

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