CHAPTER I

INTRODUCTION

1.1. Background

Human life essentially always follows the developments of the times that occur at that time. It can be seen that the dynamics of today's society have changed the pattern of life and have developed a new life order that leads to social, economic, cultural, defense, security, and law enforcement changes, as well as new thinking patterns influenced by scientific and technological advancements. Science and technology have extended throughout numerous aspects of life, one of which impact on economic activities, namely the financial and banking industry. Financial innovations have emerged in this industry, resulting in modifications to the payment system.

The payment system has evolved to follow the evolution of money due to several driving elements such as technological innovation and business models, community traditions, and authority rules. Payment technology innovations emerge at a rapid pace when a payment mechanism is required to meet every need of the community in terms of transferring funds quickly, safely, and efficiently, leading to efforts to strengthen infrastructure and develop systems based on advances in information technology.

This development was also observed by Bank Indonesia, which, in line with the Bank Indonesia Act No. 3 of 2004, has the ability and responsibility to control and maintain stable payment methods for both cash and non-cash payment systems. One of the most crucial components of a nation's financial infrastructure is a reliable and efficient payment system, which can help prevent financial crises, provide financial assistance, and stimulate economic activity by streamlining and simplifying the payment process (Taghiyev, Eminov, & Guliyev, 2016).

The payment system's importance in the economy is growing in tandem with the volume and value of payment transactions. To ensure the smoothness and security of the payment system, Bank Indonesia has implemented policies that focus on four main aspects: increasing security, and efficiency, expanding access to the payment system, and paying attention to consumer protection. The ease with which transactions may be completed through a seamless, efficient, rapid, and secure payment system has an impact on financial system stability, monetary policy implementation, and the smooth functioning of economic operations.

One standard means of payment used by the public is currency, namely banknotes and coins. Money has a significant impact on the economy since it, among other things, can boost consumer and producer efficiency as well as overall economic activity. The demand for money in Indonesia could, however, change as it develops. Because it has to do with how important money is as a medium of exchange and how important it becomes as the economy expands, the symptom of rising demand for money is an economic reality. A growing and developing economy has the consequence of increasing transactions that require money to facilitate the payment process; by using money as a means of payment in transactions, the economy of a country will run well so that the goal of the state is achieved, namely realizing a just and prosperous society. Bank Indonesia, as the monetary authority, has to always maintain the stability of the Indonesian economy, one of which is through the amount of money in circulation which is usually determined by the level of prices of goods and services available. The amount of money circulating in the community needs to be regulated as well as possible so as not to have a negative impact on monetary objectives.

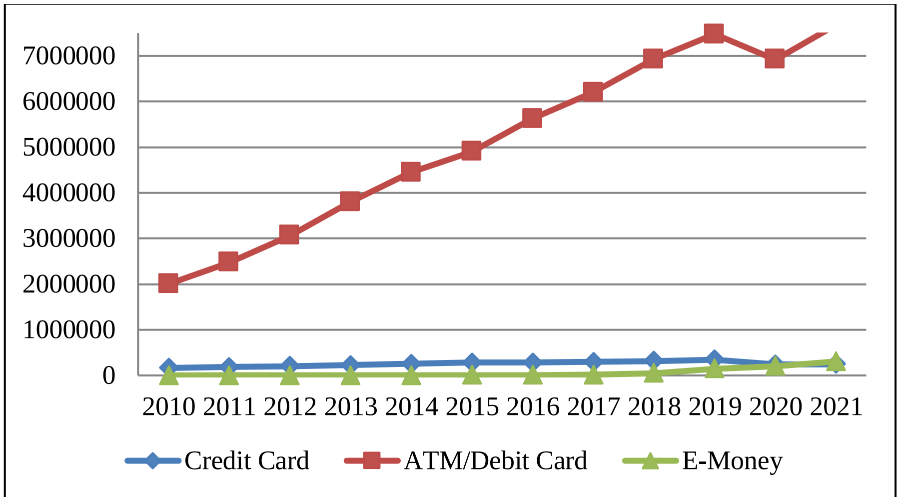
The usage of currency, however, eventually led to issues. It is acknowledged that the high proportion of cash used in payment transactions has various flaws, including the case of impracticality, the high cost of money management, and chances for criminal activity, specifically seizure and money laundering. In order to make payments more efficient, it is therefore required to build new payment systems.

Technology advancements are gradually displacing cash payments in transactions in favor of non-cash payments. Bank Indonesia also supports this; the country's central bank, on August 14, 2014, launched the Gerakan National Non Tunai (GNNT) to increase the value of non-cash payment transactions to reduce cash in circulation and also reduce the cost of printing money circulating in the community and will strengthen public understanding of the importance of using non-cash transactions. Bank Indonesia will also improve the quality of electronics as a means of non-cash payment transactions and enhance infrastructure in carrying out economic activities when transacting to encourage the replacement of the cash payment tradition with non-cash payments.

The scope of non-cash payment instruments consists of APMK (credit card and ATM/debit card), payments using checks, credit and debit notes, and e-money. Still, in this study, the author will focus on the proportion of non-cash payments using APMK (credit card and ATM/debit card) and e-money as transaction tools used by the community for economic activities that can directly affect the volume of transactions and the velocity of money in the Indonesian economy. The encouragement of this payment system will cause a multiplier effect on economic activity, directly related to the velocity of money.

According to Irving Fisher's theory, this phenomenon shows the connection between the quantity of money demanded and the number of transaction levels that offer the speed of money transfer. The size of the demand for money can be seen from the composition of liquid base money, namely currency and demand deposits, for example, APMK and e-money. Therefore, this non-cash transaction variable can be related to the output, as seen in Indonesia's total Gross Domestic Product (GDP).

Figure 1.1 Transaction Value of Non Cash Payment for 2010 – 2021

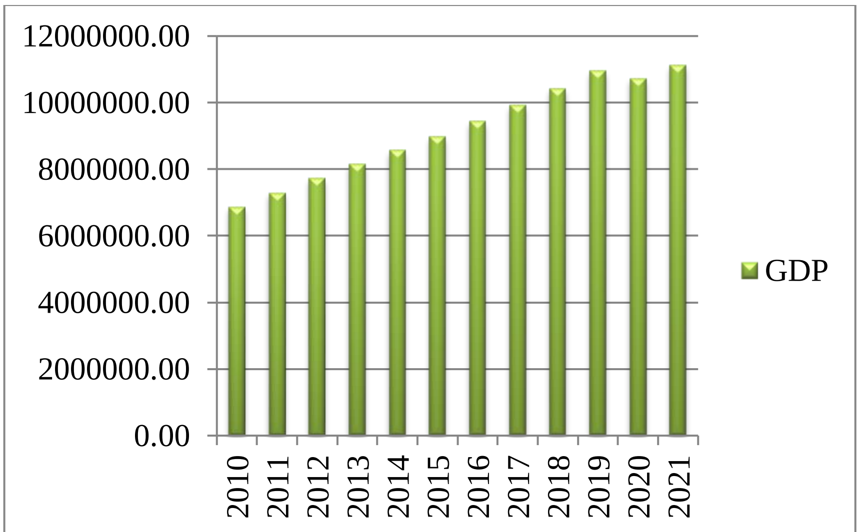


Source: Bank Indonesia (data processed)

According to the data in the figure above, the value of transactions made with credit cards, debit cards, and e-money tends to rise annually; however, in 2020, it fell as a result of the COVID-19 pandemic, which led to some regulations that restricted people's ability to engage in economic activity. This is due to developing secure, helpful, and effective non-cash payment methods that have gained widespread acceptance in society (Syarifuddin, Hidayat, & Tarsidin, 2009). The development of non-cash payment methods cannot be separated from Bank Indonesia's initiatives to make payments more convenient and from incorporating electronic money in a rapidly expanding digital environment. To facilitate the growth of the digital economy and finance, Bank Indonesia will continue to enhance the functionality of the payment system.

The presence of the non-cash payment instruments stated above is not just a result of innovation in the banking industry. Still, it is also a result of the public's demand for useful payment methods that may make transactions more convenient. The ease of transactions can encourage a decrease in transaction costs and, in turn, can stimulate economic growth. The non-cash payment system's function will significantly impact a nation's economy, especially given the large value payment system's growing dominance over the small value payment system. The effectiveness and ease of the non-cash payment system will help the overall national financial system and directly influence the people who use it. The graph below shows Indonesia's output from 2010 to 2021 based on Gross Domestic Product:

Figure 1.2 Gross Domestic Products for 2010 – 2021



Source: Central Bureau Statistics (data processed)

From the data above, it can be seen that Indonesia's gross domestic product has increased from 2010 to 2021, and it can be seen from 2010 to 2019 that it continues to grow. Only in 2020, there is a dip because of numerous regulations in community activities, but in 2021, it increased again. As can be observed, Indonesia's gross domestic product rose concurrently with the growth of the non-cash payment system.

The above phenomenon of non-cash transactions shows Indonesia's market efficiency, which raises the velocity of money and offers a way for the real sector of the economy to become financially included by managing and regulating the money supply. As the velocity of money rises through economic activities, the demand for money supply decreases. Non-cash transactions are expected to be utilized indefinitely to influence consumers' economic decisions to keep transacting, and producers can lower manufacturing and distribution costs to boost Indonesia's economic growth (Arner, Buckley, & Barberis, 2016). According to Irving Fisher's theory of money demand, if the velocity of money is higher, the money supply will fall, as seen graphically by the shift in the LM and AD curves, resulting in a reduction in income.

The presence of non-cash payment instruments can encourage economic growth and stimulate various business activities. Economic actors will be encouraged to transact along with reduced barriers to transactions in terms of cost, effort, and time. This will undoubtedly contribute to an increase in economic activity and GDP. How big the contribution, in this case, will depend on its share of the total cost, effort, and time of business activity. If the expenses, energy, and time reduction from the non-cash payment transactions are significant, this can stimulate business activities. However, if it is relatively small, the impact on increasing economic activity and GDP is also insignificant.

Several recent studies that many international organizations have carried out illustrate that the existence of an electronic payment system will have a positive effect on consumption levels, where a 1% increase in the value of non-cash payments will affect an increase in real GDP of 0.08% in developed countries and 0.08% in developed countries 0.11% in developing countries (Zandi, 2013). According to Pramono et.al (2006) the presence of non-cash payment instruments for the economy offers the benefits of increased financial efficiency and productivity, which encourages real activity and can further encourage economic growth and improve people's welfare as indicated by an increase in money velocity. Furthermore, research on the impact of non-cash payments on the economy has been carried out by Nirmala & Widodo (2011), Syarifuddin et al. (2009), Oyewole et al. (2013), Nwankwo & Eze (2012), and Hasan (2012). The results of this study conclude that an increase in non-cash payments will stimulate economic growth and shift the role of cash payments. Therefore, further advancement is required to enable non-cash payments to continuously increase, to increase the output, and provide a better improvement in economic growth.

The evolution of the phenomena demonstrates the importance of APMK (credit card and ATM/debit card) and e-money as non-cash transaction tools for ensuring financial stability and economic prosperity. Several studies have found that the number of transactions using non-cash (APMK and e-money) impacts the monetary amount of the money supply (M1). Still, this study examines the causal relationship between non-cash payment and output as seen from the total Indonesian Gross Domestic Product (GDP) and also explains quantitatively and qualitatively the relationship between non-cash transactions (APMK and e-money) and Indonesia's output based on Gross Domestic Product (GDP).

Based on the explanation above with the phenomenon of increasing non-cash payments in Indonesia and the findings of earlier studies, this study will investigate **"Analysis of the Relationship between Non-Cash Payment and Output in Indonesia"** in the latest year to prove the theory and to add literature for further research.

1.2. Research Problem

Increased transactions using non-cash payments (APMK and e-money) can increase gross domestic product by increasing the output produced due to increased public consumption with the ease of transactions, but if it is a gross domestic product that influences the increase in non-cash payments (APMK and e-money) because the higher the value of the gross domestic product can increase the amount of non-cash payments. Therefore, to see the analysis of the relationship between non-cash payments and output based on gross domestic product, the problem formulation of this study is as follows:

a. What are the non-cash payments (APMK and e-money) effect on output based on the gross domestic product in the long term?

b. What are the non-cash payments (APMK and e-money) effect on output based on the gross domestic product in the short term?

1.3. Research Objectives

Based on the description of the background and the formulation of the problem that has been described, it is necessary to know the objectives of this study are as follows:

a. To determine how the long-term relationship between non-cash payments (APMK and e-money) affects output (GDP).

b. To determine how the effect of the short-term relationship between non-cash payments (APMK and e-money) and output (GDP).

1.4. Research Benefits

The relationship of non-cash payments (APMK and e-money) and output (GDP) is investigated in this study. The final results to be achieved in this study are the benefits that include:

1.4.1. For the author

It was enriching scientific insights and honing the skill of writing scientific things. Furthermore, the step of writing this thesis can also upgrade the writer's soft skills along the process.

1.4.2. For readers

It can provide knowledge for readers and can be used as references and illustrations for further research in the same field. The reader also included government and any institutions which can be a reference for them in increasing policy in the area of the payment system.

1.5. Limitation of Study

Although this study has achieved its objectives, it only looked at the relationship of non-cash payments (APMK and e-money) and output based on the gross domestic product. The non-cash payments analyzed were only credit cards, ATM/debit cards, and electronic money. Secondary data was acquired from Bank Indonesia's Payment System Statistics and the Central Bureau of Statistics. The data used in this study is quarterly time series data from 2010Q1 to 2021Q4.

1.6. Systematic Writing

The systematic writing aims to give an overall picture of this research. The following systematic writing:

CHAPTER I: INTRODUCTION

There is consists of six sub-chapters, among of that is background, research problem, research objectives, research advantages, limitation of study, and systematic writing.

CHAPTER II: LITERATURE REVIEW

This chapter discusses about non cash payment and economic growth theoretical framework that supports and relates to the variables studied which are also supplemented by previous research which is related to the title of the study and hypothesis.

CHAPTER III: RESEARCH METHODOLOGY

This chapter contains type and sources of data, definition of variables, and research model.

CHAPTER IV: EMPIRICAL RESULTS AND ANALYSIS

This chapter explains about the output of the research and the analysis from the processed of data found in the statistical descriptive analysis.

CHAPTER V: CONCLUSION

This chapter is the final part of the research which contains conclusions and recommendation obtained from the publications in the previous chapters.