International Journal of Accounting and Economics Studies, 12 (6) (2025) 169-175

International Journal of Accounting and Economics Studies

Website: www.sciencepubco.com/index.php/IJAES
https://doi.org/10.14419/gbs8mw83
Research paper

The Development of Digitalization of Rupiah Currency Towards National Security, Especially in Dealing With Cyber Crime and Financial Crime

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Received: July 5, 2025, Accepted: September 22, 2025, Published: October 5, 2025

Abstract

This study aims to describe the development of digitalization rupiah currency against national security, specifically in the face crime cyber and cybercrime. The approach used descriptive qualitative methods. The research object is in the form of secondary data, consisting of primary policy materials, secondary policy materials, and tertiary policy materials. Temporary Qualitative data analysis is carried out through a process where data is sorted, collected, and managed into an organization or categorization, then synthesized to obtain clarity, including finding patterns, what things are important, and can be learned as lessons in order to decide something that can be told to other parties. The government is expected to immediately strengthen cybersecurity policies to protect the financial system from increasingly sophisticated cyber attacks. Cases of data leaks that have occurred on various digital platforms show how vulnerable a system that is not fully secure is. To support this, the Indonesian government, together with Bank Indonesia, the Financial Services Authority, and the Attorney General's Office, needs to actively involve the public in financial and digital literacy programs. The program aims to increase public understanding of digital currency and its benefits for national economic stability. Cooperation with educational institutions is also important to disseminate information related to the use of digital rupiah safely and effectively. The digitalization policy model for the rupiah currency through CBDC should be accompanied by mature risk mitigation, one of which is related to national threats in the form of monetary stability. With the right policy and regulatory model, the digital rupiah or CBDC is expected to become a stronger monetary sovereignty and a payment instrument that functions to strengthen national security in the digital era.

Keywords: *Crime Cyber; Crime Finance; Digitalization Currency; Security National.*

1. Introduction

Rupiah, as the legal currency in Indonesia, is a means of payment and at the same time a symbol of state sovereignty, with great pride for all Indonesian citizens (Maulina et al., 2024), as the legality of its use is stated in the regulation of Law Number 7 of 2011 concerning Currency and the regulation of Law Number 23 of 1999 concerning Bank Indonesia and Law Number 3 of 2004 concerning amendments to Law Number 23 of 1999 concerning Bank Indonesia.

Bank Indonesia is a central bank that has the authority to specifically regulate the flow of rupiah currency in economic interactions of people in all sovereign territories of the Republic of Indonesia, and the implementation of the rupiah is very important in payments (Atmaja & Paulus, 2022). Indonesia is a country with the largest economy in Southeast Asia, also facing challenges and opportunities in adopting currency digitalization. The digitalization of the rupiah currency is expected to strengthen state sovereignty and national security. According to Bank Indonesia, the use of digital technology in the payment system is expected to increase efficiency and financial inclusion, which are very important for economic growth (Afrizal et al., 2021).

The development of digital technology is very significant for producing innovation in the field tool payment tools with digital currency or digital currency. Creation of currency with digital technology exists in various methods, one of which is with use method cryptography(Fauzi et al., 2023). The currency created uses a method called with cryptocurrencies. Cryptocurrencies can become the first implementation of existing technology, Blockchain, and not limit their potential only to system payment. Decentralized application created for the influence field of life, basically like knowledge, economics, art, education, culture, and others (Shovkhalov & Idrisov, 2021).

Cryptocurrency or digital currency is a designation as form by a system with operationalized cryptography that is through activity transfer documents for exchange into a digital token(Afrizal et al., 2021). The method of making digital currency through the technique of cryptocurrency is a type of digital currency. First time cryptocurrency appeared in 2008, with the term bitcoin coined by Satoshi Nakamoto, is used and sold by company trading platforms, investors, and retail consumers that is not believe in the system banking (Noh & Bakar, 2020). Satoshi Nakamoto as Bitcoin creator of Bitcoin, expresses concern about the system of finance and banking, with existence 2008 crisis and inflation due to a transparent of transparency in banking. Bitcoin, as crypto cryptocurrency, is not controlled by anyone, uses easy transactions, has relatively low transfer fees, and range enough transaction areas. occurrence increasing use of Bitcoin because of without through

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Government Banks (Fitriyani, 2020). This is in line with data released by Bank Indonesia (BI) in April 2020, in the study stating that the use of sophisticated technology in the financial sector increased by 37.35% as an economic booster (Ferraro et al., 2018).

In Indonesia, cryptocurrency first entered in 2013 due to the rise of digital payments through online games, and then, around 2014, an Indonesian Bitcoin merchant named Indodax was established (Ausop & Aulia, 2018). Bitcoin Indonesia is increasingly well-known after having assets of around 200 coins of crypto assets registered with the Commodity Futures Trading Supervisory Agency (Bappebti), and customers who transact around 5.6 million people and a monthly volume of 2 trillion rupiah.

With the digitalization plan for the rupiah, the government must prepare policies to better control the flow of money, prevent illegal activities such as money laundering, control the amount of money in circulation, and increase the efficiency of transaction recording. The digitalization policy for the rupiah is expected to increase financial stability through better transparency of financial transactions, both domestically and internationally(Usman, 2017). The use of digital rupiah through the Central Bank Digital Currency (CBDC) is expected to reduce the risk of disintermediation and increase monetary efficiency.

However, the readiness of digital infrastructure in Indonesia is still not adequate to support the digitalization of the rupiah currency, which will be fully implemented in the form of CBDC. In Indonesia still many remote areas, access to internet technology and financial infrastructure needed to support digital transactions is very limited and lacking adequate. Including the existence of cybersecurity threats and financial systems that become a major challenge in implementing CBDC as an implementation of digital rupiah, with the potential for cyber attacks that could disrupt the national payment system (Shalua & Semlambo, 2024).

Monetary theory, particularly concepts from Friedman (1960) and Keynes (1936), helps explain the role of Central Bank Digital Currencies (CBDCs) in managing the money supply, controlling inflation, and stabilizing the economy. In the context of Indonesia's digital rupiah, this theory provides insight into how CBDCs can serve as tools for more effective monetary policy and enhance economic stability. On the other hand, the cybersecurity resilience model, as outlined by Bodin et al. (2014) and Krotofil et al. (2018), addresses the risks associated with the digitalization of currency, emphasizing the importance of securing financial systems against cyber threats. This model suggests that a robust cybersecurity infrastructure is essential for protecting CBDCs from cyberattacks and financial crimes, ensuring the integrity and trustworthiness of the system as it becomes an integral part of Indonesia's national security framework.

Regulations that specifically regulate the use of digital currency in Indonesia are still unclear, especially covering important aspects related to data protection, cybersecurity, and the monitoring of digital transactions (Salsabila & Sulistiyono, 2019). In Law of the Republic of Indonesia Number 7 of 2011 concerning Currency, it is expressly stated that the currency used by the Republic of Indonesia is the rupiah, but in Article 2 paragraph (2) of Law Number 7 of 2011, it does not mention the use of digital rupiah, only paper and metal rupiah. Including in Law Number 23 of 1999 and its amendments in Law Number 3 of 2004 concerning Amendments to Law Number 23 of 1999, Article 19 also does not stipulate the types and characteristics as a valid payment medium in digital form (Rikmadani, 2021).

However, regarding payments, the existence of Law of the Republic of Indonesia Number 4 of 2023 concerning the Development and Strengthening of the Financial Sector is used as a legal basis related to payments, as used by the Ministry of Finance as a policy to be able to conduct electronic rupiah currency transactions. In this context, the central bank through Bank Indonesia, the Financial Services Authority as a supervisor of financial transactions, and the Attorney General's Office in handling financial crimes have not formulated a policy model partially or collaboratively, in the implementation of standard operating procedures (SOPs) for control, supervision, and prosecution related to the security of the use of digital currency in the form of electronic circulation of rupiah currency.

In addition, there are still things that need to be prepared in the digital currency policy model regarding security related to personal data leaks in digital transactions, this is included with several cases that pose a serious threat to the financial system and crimes (Gajah et al., 2023). BI, together with OJK and the Attorney General's Office, must work together to create a legal framework in the form of regulations that support the implementation of the digitalization of the rupiah currency in the form of the Indonesian CBDC or under the name Rupiah Digital. Because countries with good regulations in the digital sector tend to have more stable economic growth, as shown by data from the World Bank.

In previous research, conducted by Maulana Ihsan Fairi et al. (2021) with the title "Analysis of the Implementation of CBDC in the Perspective of National Security". The study used an analysis of the perspective of defense economics, which was studied using a qualitative descriptive method. The conclusion obtained by the researcher is that the threat to the country is no longer focused on the military alone, but on facing actors other than the state, namely non-military and other security issues. And BI's response to CBDC as a legal currency issued by the central bank in digital form, then a real contribution to the national economy, and the best among emerging market countries.

Another study, conducted by Lisanawati (2022), entitled "The urgency of CBDC legal regulation in the dimension of money laundering." The study resulted in the need for further regulations regarding the implementation and prevention of CBDC in money laundering and terrorism financing crimes. The general overview in this study discusses the presence of digital rupiah or CBDC, which focuses more on legal, social, economic, and national security aspects. The difference with previous studies is that there has been no research that discusses more comprehensively the digitalization policy model for the rupiah currency or CBDC as a symbol of state sovereignty. This study will also measure national security variables related to cybersecurity and the financial system.

Furthermore, in another study conducted by Rafli Fadilah Muhammad, et al. (2023) entitled "Legality of CBDC Implementation in Indonesia". This study is an enrichment of the concept of national security from a legal aspect and analyzes it using a legality perspective that is examined using qualitative methods. The conclusion obtained by the researcher is that the threat to the state must pay attention to finance and regulations, as well as other policy issues. In terms of implementing digital rupiah or CBDC through regulations, Indonesia, when compared to other countries, already has a legal basis as one of the requirements, although not yet holistically, and still requires further policies by the central bank, including distribution, issuance, and administration. As a legal basis used, namely Law Number 4 of 2023 concerning the Development and Strengthening of the Financial Sector (UUP2SK), in this regulation, there are types or types of rupiah, not only paper rupiah and metal rupiah, but also digital rupiah. In addition, the existence of UUP2SK also provides attribution authority to Bank Indonesia in regulating further operations related to the issuance of digital rupiah currency or CBDC, in this case, implementing BI Regulations. Thus, indirectly, the Indonesian government shows its seriousness in supporting financial inclusion policies in Indonesia.

The main difference between this study and the three previous studies is that this study will focus on the thinking system and dynamic system approaches to obtain the right policy model related to the digitalization of the rupiah currency as monetary sovereignty to support national security. The novelty of this study lies in the technique of obtaining a digitalization policy model for the rupiah currency in terms of monetary sovereignty and national security, which produces novelty or research findings in the form of regulations as a legal umbrella for the implementation of Indonesia's CBDC in the form of Digital Rupiah. Of course, it is very different from previous studies that focused more on legality and economic aspects alone; this study will examine how the digital rupiah can become a stronger monetary sovereignty amidst global economic pressures. In addition, this study offers a comprehensive and innovative policy model in dealing with cybersecurity threats and ensuring the sustainability of the national economy.

This research is very important because it needs to support the 2025-2045 RPJPN towards Golden Indonesia, so that the right policy model for digital currency transformation as a global issue, such as the emergence of BRICS consisting of five countries including Brazil, Russia, India, China and South Africa which were essentially formed to strengthen developing countries from the dominance of developed countries that use dollars, then the presence of Indonesia as carried out by Bank Indonesia by taking the initiative to face the challenges of economic globalization through the digitalization of the rupiah currency in the form of CBDC, then Bank Indonesia's initiative through the Garuda project as one of the strategies to create a digital transformation program for the rupiah currency through CBDC which is specifically in the form of blockchain must be continued.
However, at this time, the digitalization of the rupiah currency into the form of CBDC is still in the process of phasing out visibility studies, and in reality the Government of the Republic of Indonesia does not yet have an appropriate and systematic policy model that can be immediately implemented as a form of strengthening Indonesia's monetary sovereignty, including in the process of strengthening to implement CBDC as a system that can be used to support national security.
This study aims to describe the development of digitalization rupiah currency against national security, specifically in the face crime cyber and cybercrime. Research: This is the development of defense science in the concentration of national security, especially regarding the digitalization policy model of the rupiah currency from a national security perspective, continuing previous research from the perspective of defense economics, legal sociology, and legal science.

2. Methods

Approach in study: This uses descriptive qualitative. The object of research in this study is in the form of secondary data types, consisting of primary policy materials, secondary policy materials, and tertiary policy materials. First, primary policy materials are taken from several policy sources in the form of regulations, namely, Law of the Republic of Indonesia Number 23 of 1999 concerning Bank Indonesia, Law of the Republic of Indonesia Number 7 of 2011 concerning Currency, Law of the Republic of Indonesia Number 21 of 2011 concerning the Financial Services Authority, Law of the Republic of Indonesia Number 4 of 2023 concerning Development and Strengthening of the Financial Sector, Bank Indonesia Regulation Number 17/3/PBI/2015 concerning the Obligation to Use Rupiah in the Territory of the Republic of Indonesia, Bank Indonesia Regulation number 20/6/PBI/2018 concerning electronic money. Second, secondary policy materials are books on monetary sovereignty in general, research results from experts, journals, and scientific papers. Third, tertiary policy materials are articles from various sources, including magazines, tabloids, newspapers, and articles from the internet and legal dictionaries. Temporary Qualitative data analysis is carried out through a process where data is sorted, collected, and managed into an organization or categorization, then synthesized to obtain clarity, including finding patterns, what things are important, and can be learned as lessons to decide something that can be told to other parties.

3. Results and Discussion

3.1. Policy digitalization rupiah currency

Policy is a statement official government about the " best " solution for a problem in society. According to MC Lemay (2002), the policy public is defined as planned actions performed by the actor or group of actors to handle a problem. That thing aims to solve problems that occur in the public sector or society (Ginanjar, 2019). A leadership government or organization can set goals, ideals, principles, or meaning as a guideline to reach a target. The term " policy " also refers to a set of ideas and principles that serve as an outline and basis plan for carrying out tasks.(Kristian, 2023). William Dunn explains policy as a rule written as stipulated legally to create a new social order in society(Agbazuere, 2020).
Harold Lasswell and Charles E. Lindblom (1970), through their book entitled Power and Society, have provided a framework for understanding the policy-making process. Public policy theory, as expressed by Harold Lasswell and Charles E. Lindblom, emphasizes the importance of systematic analysis in policy making. Lasswell proposed the "Who Gets What, When, How" approach, which is relevant in the context of the distribution of benefits from a digitalization policy model for the rupiah currency(Eviany, 2019).
Policy, or policy, is usually intended for select and show choice or alternative best use repair life, good in form organization government, organization social, or organization personal. Policy is applicable rules that keep going and keep going continuously, good from the maker or implementer. The government makes a series of mutual decisions related to the intended of the public, which consist of group interests. In the statement delivered, the government acts as a tool adhesive, gets optimal support from all over the element group interests, so that it becomes a united force to reach the objective together (Ayogu et al., 2019).
Regulations and policies are mainly used in the framework policy model, making digitalization Rupiah currency:
1) Law Number 23 of 1999 concerning Bank Indonesia
2) Law Number 7 of 2011 concerning currency
3) Law Number 21 of 2011 concerning the Financial Services Authority
4) Law Number 4 of 2023 concerning Development and Strengthening Sector Finance
5) Law of the Republic of Indonesia Number 59 of 2024 concerning the 2025-2045 RPJPN
6) Regulation No. 20/6/PBI/2018 concerning electronic money

Hiekkanen, Pekkala & Collin (2015) argue that digital is the conversion of analog information that is converted into binary numbers 0 or 1: digital digits. In defining digital, what is related is the development of information technology and digital technology. In the use of digital technology, it has a close relationship with the media; therefore, the development of media goes hand in hand with technology, which means there is a change from old media such as newspapers in paper form to new media in the form of paperless, thus making it practical in matters related to digital technology (Hashemi Joo et al., 2020).
Meanwhile, Danuri (2019) revealed the existence of digital technology obtained from information technology by prioritizing simple activities through computer media, electronic media, and not using human power. Danuri stated that digital is basically a fast calculating system that processes all data in the form of information into numerical form, with another understanding of information processed by technology leading to changes in the quality and efficiency of data storage capabilities that are created and then used and sent, such as images that are clearer and better quality, even capacity becomes more efficient in the form of a faster delivery process (Mikołajewicz-Woźniak & Scheibe, 2015).

Digital technology that changes codes with bits and bit systems, to store data and process data, visualization, data systems that are converted into binary values. From this system, it produces very significant savings, such as in the fields of information, communication, data transformation, data processing, data security, and handling of electronic media activities, as digital technology (Liu & Tsyvinski, 2021).
According to Musnaini, Suherman, Wijoyo, and Indrawan (2020), the use of digital technology is a technology that no longer uses human power, or manual technology, but tends to an automatic operating system with a computerized system using a format that is controlled in a computerized format or which is operated through an automatic system that can be read by a computer. Musnaini, Suherman, Wijoyo, and Indrawan stated that digital is a complex but flexible method that makes it a component of numerical data collection in the binary development of the analog system (Mikołajewicz-Woźniak & Scheibe, 2015).
Bitcoin is legalized as a medium of exchange used in thousands of transactions worldwide. Several countries have issued regulations to prohibit Bitcoin and other cryptocurrencies because they bypass the authority of the central bank. In Indonesia, the legality of cryptocurrency is not found in Law of the Republic of Indonesia No. 7 of 2011 concerning Currency. Bank Indonesia, in its Press statement No 16/6DKom dated February 6, 2014, about Law of the Republic of Indonesia Number 7 of 2011 concerning Currency and about Law No. 23 of 1999 concerning Bank Indonesia, last amended by Law No. 6 of 2009, stated that Bitcoin and other virtual currencies are not legal currency or means of transaction in Indonesia.
Furthermore, in response to the global digital development of the economy that is more towards easier transactions, lower costs, and time saving, Bank Indonesia then conveyed a policy to the public to be careful with Bitcoin and other virtual currencies. All risks related to the ownership and use of Bitcoin are borne by the owner or user of Bitcoin and other virtual currencies. (Afrizal et al., 2021) Bank Indonesia then issued BI Regulation Number 18/4/PBI/2016 concerning the Implementation of the Payment Transaction Process and BI Regulation Number 19/12/PBI/2017 concerning the Application of Financial Technology.
To understand digital currency, known as electronic currency or cryptocurrency, is a technological transformation of fiat currency using blockchain technology in the entire currency structure, as well as electronic currency assets whose operations are managed, stored, sent or exchanged through a digital computer system, especially through the internet network. Types of digital currencies include cryptocurrency, virtual currency, electronic currency, and stablecoin currency (Wahri, 2021).
Simply understanding digital currency is by getting to know cryptocurrency, which is a digital currency in private form. Cryptocurrency is not available in physical form, such as coins or cash banknotes that are commonly used throughout the world. In the use of cryptocurrency, everything is digital or completely virtual or electronic. As with the digital rupiah currency through CBDC, which has a digital format in the form of crypto code, electronic money has a chip and server-based, and this digital currency is used as a means of payment using cards/APMK (debit and credit cards) that we currently use(Wijaya, 2021).
research is important because it will produce a digitalization policy model for the rupiah currency through the form of CBDC or Digital Rupiah issued by Bank Indonesia after completing the stages of risk mitigation against the challenges of economic globalization through digital, through the Garuda project study as a digital transformation program for the rupiah currency. The existence of regulations related to the Indonesian CBDC which will later be named Rupiah Digital as a rupiah currency that has been specifically digitized in the form of blockchain has been equipped with a policy model that is stated in laws and regulations that can be derived into Bank Indonesia Regulations, OJK Regulations and Prosecutor's Office Regulations as an effort to support monetary sovereignty and at the same time support national security.
The digitalization of the rupiah currency, which is part of Indonesia's monetary sovereignty in the future, will show great potential in supporting national security. By understanding existing trends, methods, and research results, it is hoped that the policy model taken can be more effective in facing challenges in this digital era. Further research is needed to explore the long-term impact of currency digitalization on the Indonesian economy and society, especially to support the 2025-2045 RPJPN.

3.2. Development of digitalization rupiah currency and national security

Cyber Security Theory (Whitfield Diffie & Martin Hellman) is the relevance of digital infrastructure protection to protect digital currency systems from cyber security threats (cyber security) refers to the existence of activities, processes, capabilities or abilities, or a position where information and communication systems and information stored in the data have been protected from damage, use, modification, or exploitation by unauthorized parties.
Cybersecurity tools are considered to have violated information security provisions (Nurse et al., 2015). In a cybersecurity system, information protection efforts are carried out by an authority in an area that is considered to have the greatest potential to face the greatest situation of experiencing cyber attacks or crimes(Mitnick & Simon, 2003).
Cybersecurity skills are essential because of cybersecurity protection, along with the increasingly strong trend of cybercrime or cyber attacks in various organizations. Security protection against cyber attacks is aimed at information technology devices used as devices owned in the form of anticipating malware attacks or data breaches to steal data (data breach). Malware is malicious software designed by hackers to infiltrate, damage computer systems that endangering computers with special codes. In its operation, the destruction of the computer system is not directly aware of the destruction of the attack.
Meanwhile, other things, data theft that occurs generally occurs in companies that do not filter the entry of malware as a crime or cyber attack on data security, which is the reputation of the organization, thus causing major losses for the company.
Research related to digital currency, in the form of CBDC legality from a National Security perspective, has been widely conducted. Research on the digitization of the rupiah currency, which generally uses the CBDC nomenclature, is widely studied from the perspective of defense economics, sociological law, and defense science. Meanwhile, the research that will be studied now, namely the model of the rupiah currency digitalization policy as a form of monetary sovereignty from a defense science perspective, has never been done before, especially from the perspective of supporting national security against cyber threats and financial system crimes. Thus, the research that will be conducted now is different from previous research.
Referring to previous research that is still considered relevant and can be continued with this research, the continuation of the CBDC analysis, which is one form of digital currency, needs to be researched to produce a policy model related to the digitalization of the rupiah currency as monetary sovereignty in Indonesia. In Law Number 4 of 2023 concerning the Development and Strengthening of the Financial Sector and Bank Indonesia Regulation No. 20/6/PBI/2018 concerning electronic money, the two regulations cannot provide legal certainty, justice, or benefits in the policy of using digital rupiah currency in Indonesia.
Description in study expected capable made into input in 5 (five) policy models in the form of recommendations for changes to the Law of the Republic of Indonesia concerning currency or Government Regulations, the issuance of the Bank Indonesia Regulation (PBI) policy concerning CBDC or Digital Rupiah, the issuance of the Financial Services Authority Regulation (POJK) concerning supervision of Digital Currency, the issuance of the Republic of Indonesia Attorney General's Regulation (PERJARI) concerning the prosecution of criminal acts

against cybersecurity and financial system crimes and Joint Regulations (Perber 3 institutions) namely the Governor of Bank Indonesia, the Head of OJK and the Attorney General of the Republic of Indonesia in the form of legal norms for the implementation of CBDC or digital rupiah which is used as an instrument for reforming the payment and monetary system to prevent and overcome national security threats.

Contextually, the legality of the rupiah currency is based on Law of the Republic of Indonesia Number 7 of 2011 concerning currency, as in the general provisions of article 1, the currency used by the Republic of Indonesia is the rupiah, so that the legal tender in Indonesia is of course using the rupiah currency, but in article 2 paragraph (2) of Law of the Republic of Indonesia Number 7 of 2011 there are no regulations regarding the digital form of the rupiah currency, only the rupiah currency in the form of paper and metal. Furthermore, Law of the Republic of Indonesia Number 23 of 1999 concerning Bank Indonesia in Article 19 does not stipulate the types and characteristics of legal tender in the form of digital currency.

Bank Indonesia, which has innovated the rupiah currency through the Garuda project, and to implement the digital currency in the form of CBDC, it turns out that there are still many obstacles faced, especially in the stages of BI's authority to control the circulation of digital rupiah currency as monetary sovereignty, there is still no legal umbrella in the form of regulations or policies, so that Bank Indonesia (BI) which wants to develop the rupiah currency through the digital transformation of the rupiah currency into a Digital Rupiah or later through the existence of the Central Bank Digital Currency (CBDC). Based on this, BI requires a visibility study in the implementation of CBDC, including in addition to the issue of technology that will be used to strengthen monetary sovereignty, CBDC is also still faced with the problem of supervision and handling of crimes against cybersecurity and financial system crimes.

The digital rupiah that will be controlled by CBDC is BI's hope in improving the economy. The digital rupiah that has a crypto code from blockchain technology is expected to be used to complement the use of paper money (paper and metal money), the use of digital money (chip and server-based) in digital rupiah as a means of payment, as most Indonesian people have used cards/APMK (debit and credit cards) that we use today. The Digital Rupiah itself, which is regulated by CBDC through Bank Indonesia as the Central Bank of the Republic of Indonesia, also requires collaboration with institutions such as OJK, the Attorney General's Office, and other Ministries.

The initial step in developing Rupiah Digital through the Garuda Project program is to review visibility by publishing a white paper as a communication to the public regarding the Rupiah Digital development plan. In addition, the White Paper aims to obtain input from various related parties.

After the publication of the White Paper, BI will undertake a series of interactive, literate and gradual developments that begin with gathering public views on the design of the Digital Rupiah starting from public consultation (Consultive Paper and Focus Group Discussion), technology experiments (proof of concept, prototyping, and piloting/sandboxing), and ending with a review of the policy stance. The iterative series aims to open up a wide flexibility space for stakeholders and the private industry to prepare themselves and conduct trials together before the Digital Rupiah is implemented.

Digital Rupiah will be issued in two types, namely wholesale Digital Rupiah (w-Digital Rupiah) with limited access coverage and only distributed for the settlement of wholesale transactions such as monetary operations, foreign exchange market transactions, and money market transactions; while retail Digital Rupiah (r-Digital Rupiah) with access coverage that is open to the public and distributed for various retail transactions both in the form of payment transactions and transfers, by personal/individuals and businesses (merchants and corporations).

The strategy implemented by Bank Indonesia is to innovate through CBDC in the project Garuda, which has not yet made a policy related prohibition of transaction payments using currencies other than the rupiah. BI is still compiling a plan in the System Blueprint National Payment 2025, and is still delving deeper study of visibility. Among them formulation policy to benefit implementation of CBDC as reflection sovereignty currency, prevent crime finance, improving efficiency in printing paper and metal money, increasing inclusion finance, and press cost distribution of money, while risks faced No lost important in the form of risk security, privacy, disintermediation sector banking, run risk at the time crisis, disruption technology and attacks cyber. It is hoped that BI can finish its study on visibility in the implementation of CBDC in Indonesia and can quickly carry out an experiment using CBDC as public policy.

The use and implementation of public policies in the digitalization of the rupiah currency which will later be through CBDC with the name digital rupiah is expected to become a systematic payment instrument at Bank Indonesia in the future, attempted as a solution in eradicating corruption in Indonesia, money laundering crimes (TPPU), fraud, terrorism financing and other financial system crimes, this is because the use of digital currency in the form of CBDC with blockchain technology in a structured manner is very difficult to manipulate, tracking the distribution of money, and tracking of the digital data can be manipulated by the government.

Furthermore, the planning for the use of CBDC through the Garuda project, which is currently still underway, is a visibility study through iterative efforts, namely the information technology approach, from an economic and legal sociological perspective, carried out by Bank Indonesia. The research to be conducted examines the digitalization policy model for the rupiah currency as monetary sovereignty implemented by Bank Indonesia as the Central Bank, with a thinking system and dynamic system approach to support national security. Bank Indonesia Regulation Number 20/6/PBI/2018 concerning electronic money is the inspiration for initiating the provision of guidance related to digital transactions through electronic money, cryptocurrency, or crypto money has not become a comprehensive framework regulated in regulations in Indonesia regarding currency in full. This incident proves that there is still much that needs to be improved in terms of law and regulation (Afrizal et al., 2021).

The government is expected to immediately strengthen cybersecurity policies to protect the financial system from increasingly sophisticated cyber attacks. Cases of data leaks that have occurred on various digital platforms show how vulnerable a system that is not fully secure is. So this study aims to develop a digitalization policy model for the rupiah currency as a symbol of state sovereignty while also supporting national security. In addition, this study will identify strategies as the right solution in facing infrastructure and cybersecurity challenges, as well as expanding digital literacy for the Indonesian people, especially in remote areas. The implementation of DBDC or digital rupiah is also expected to overcome the problem of financial inclusion in all levels of society, from urban to rural (Afrizal et al., 2021).

To support this, the Indonesian government, together with Bank Indonesia, the Financial Services Authority, and the Attorney General's Office, needs to actively involve the public in financial and digital literacy programs. The program aims to increase public understanding of digital currency and its benefits for national economic stability. Cooperation with educational institutions is also important to disseminate information related to the safe and effective use of digital rupiah (Warsito, 2020).

The digitalization policy model for the rupiah currency through CBDC should be accompanied by mature risk mitigation, one of which is related to national threats in the form of monetary stability and dependence on foreign technology. The government needs to develop strong local technology to reduce dependence on foreign technology providers, so that it can ensure that the digital rupiah will remain safe and in accordance with national needs. Bank Indonesia needs to immediately create a CBDC or digital rupiah policy with global trends so that Indonesia does not lag in the development of the international digital economy. This policy adjustment is important to ensure that Indonesia can continue to compete with other developed countries that have already adopted digital currencies (Afrizal et al., 2021).

With the right policy and regulatory model, digital rupiah or CBDC is expected to become a stronger monetary sovereignty and a payment instrument that functions to strengthen national security in the digital era. The success of the implementation of CBDC or digital rupiah will be a benchmark for Indonesia's ability to adapt to increasingly dynamic global economic changes (Yuneline, 2019).

The implementation of the policy model for the digitalization of the rupiah currency through CBDC is expected to strengthen monetary sovereignty and is also expected to be an opportunity for Indonesia to support national security, with higher efficiency in terms of printing money, distribution, and prevention of financial crimes, and other major risks, namely risks including privacy threats, disintermediation of the banking sector, and potential technical disruptions that can disrupt the national payment system. This requires further evaluation before the full implementation of CBDC in Indonesia. So that with the policy of digitalizing the rupiah currency in the form of CBDC in the form of a valid legal umbrella and receiving a positive response in terms of trust in Bank Indonesia, the Garuda project is considered successful. In legal science (Hans Kelsen in Maria Farida Indrati S, 2007: 23) law as a dynamic norm (nomodynamic) is considered valid if the law is made by an authority or institution that has the authority to form it and is based on a higher source of norms, so that in analyzing lower (inferior) norms, they can be formed by higher (superior) norms, and the existence of the law is layered, tiered and hierarchical.

The digital rupiah must be usable and become a fast, safe, reliable, and cheap currency in the future. The Garuda project initiated by Bank Indonesia is expected to provide visibility studies and strengthen Indonesia's national security, while ensuring that the rupiah remains the only legal currency in the Unitary State of the Republic of Indonesia (NKRI). The successful implementation of the digital rupiah will strengthen Indonesia's position as a sovereign country with a strong and innovative digital economy. CBDC in the form of a digital rupiah will not only be a legal tender but also a force for monetary sovereignty in the era of modern technology. The success of this project is expected to strengthen the stability of Indonesia's national security and economy (Afrizal et al., 2021).

Although the process of issuing the Digital Rupiah still must go a long way, the digital rupiah through CBDC is a necessity as an effective and efficient payment in the future. Because in addition to making a currency that can be used quickly, practically, easily, cheaply, safely and reliably in a digital ecosystem in the future, the digital rupiah is also a solution that ensures that the rupiah remains the only legal currency in the Republic of Indonesia, and this requires a comprehensive analysis so that facing challenges in the form of cyber security threats and financial system crimes is an inseparable part to support national security.

4. Conclusion

The digitalization policy model for the rupiah currency through CBDC should be accompanied by mature risk mitigation, one of which is related to national threats in the form of monetary stability. With the right policy and regulatory model, the digital rupiah or CBDC is expected to become a stronger monetary sovereignty and a payment instrument that functions to strengthen national security in the digital era. This study recommends the right policy model related to the implementation of digitalization of the rupiah currency through CBDC by analyzing the position and authority of Bank Indonesia as a central bank, namely an institution that has the authority to control the rupiah currency, which is the only legal tender in the territory of Indonesia. The rupiah currency as monetary sovereignty, an appropriate policy model related to the position and authority of the OJK to be able to supervise the circulation of digital rupiah in terms of anticipating disruptions and threats to cyber security and financial system crimes as well as an appropriate policy model related to the Attorney General's Office regarding the prosecution of perpetrators who threaten cyber security and the financial system.

Acknowledgment

I would like to express my sincere gratitude to all those who have contributed to the completion of this research on The Development of Digitalization of Rupiah Currency Towards National Security, especially in dealing with Cyber Crime and Financial Crime. I extend my appreciation to my academic mentors for their guidance and invaluable support throughout this study. I would also like to thank the financial sector experts and cybersecurity professionals whose insights have been instrumental in shaping this research. Furthermore, my deepest thanks go to my family and colleagues for their constant encouragement, which has been a source of motivation throughout this journey. This work would not have been possible without their support and inspiration.

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