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The Strategic Role of Bank Indonesia in the Payment System in the Digital Era

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Abstract

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This study examines the strategic role of Bank Indonesia (BI) in strengthening the national payment system in the context of rapid digital transformation. BI's mandate extends beyond the technical administration of payment infrastructures to include safeguarding monetary stability, ensuring the soundness of the banking sector, and supporting overall economic resilience. The research highlights how innovations such as Quick Response Indonesian Standard (QRIS), and BI-FAST have significantly improved transaction efficiency, reduced costs, accelerated settlement processes, and expanded financial inclusion across different segments of society, Particularly MSMEs. These policies have created a more accessible and integrated financial ecosystem that contributes directly to the growth of Indonesia's digital economy. Nevertheless, the findings also reveal major challenges that accompany this transformation. These include low levels of financial literacy in large portions of the population, heightened cybersecurity risks associated with increasing volumes of electronic transactions, and regulatory gaps that struggle to keep pace with the rapid innovation of financial technology (fintech). Using a qualitative descriptive approach, the study concludes that BI plays a central role in ensuring that the payment system not only facilitates economic activities but also serves as a strategic foundation for monetary stability.

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1. Introduction

Central banks in various countries have a strategic role in maintaining monetary stability, financial system stability, and smooth payment systems. In the global context, the central bank's functions are not only limited to controlling inflation and currency value stability, but also include maintaining public confidence in the financial system. Along with the development of the digital economy, payment systems are the main backbone in supporting modern economic activities. Financial digitalization, fintech growth, and the global trend towards a cashless society require central banks to continuously adapt to new innovations, including the emergence of cryptocurrencies, stablecoins, and Central Bank Digital Currencies (CBDCs) (Abubakar & Handayani, 2022).

The transformation of the global financial system is driving central banks to design policies that are responsive to technological change. The phenomenon of economic digitalization demands efficiency, speed, and security in financial transactions. Many countries have experimented with CBDCs to strengthen the central bank's role in payment systems and reduce reliance on private financial instruments. International studies show that the presence of CBDCs can increase financial inclusion, lower transaction costs, and strengthen monetary stability. However, these innovations also present challenges, especially in terms of regulation, data security, and financial system stability risks if not properly regulated (Boar & Wehrli, 2021).

In the Indonesian context, the role of Bank Indonesia (BI) has evolved through several important regulations. Law No. 13 of 1968 provides the basis for BI as a central bank, then strengthened by Law No. 23 of 1999 which affirms BI's independence, and further expanded by the Financial Sector Development and Strengthening Law, which adds a new mandate in line with the development of the digital economy. BI's mandate includes maintaining rupiah stability, regulating monetary policy, supervising the payment system, and regulating and supervising the banking sector. These three main pillars show that BI not only focuses on currency value stability, but also plays a central role in maintaining the integrity of the national financial system (Agung & Juhro, 2016).

The payment system has a strategic position in the Indonesian economy. Through instruments such as the BI National Clearing System (SKNBI), Real Time Gross Settlement (RTGS), BI-FAST, and Quick Response Indonesian Standard (QRIS), BI seeks to ensure that financial transactions take place safely, efficiently, and quickly. BI's role is not only as a regulator and supervisor, but also as the main infrastructure operator of the payment system. That way, BI functions to prevent the risk of default and reduce potential systemic risks that can disrupt monetary and banking stability. The efficiency of the payment system has been proven to be able to increase public confidence in the financial sector and strengthen national economic resilience (Wardhono et al., 2019).

On the other hand, BI realizes that digital transformation brings opportunities as well as challenges. BI affirms the strategic direction towards a fast, easy, cheap, secure, and reliable payment system. Innovations such as QRIS, e-wallets, mobile banking, BI-FAST, and the National Open API Standard (*Standar Nasional Open API Pembayaran*/SNAP) strengthen financial inclusion and drive transaction efficiency.

However, the challenges that must be faced include low financial literacy, potential cybersecurity threats, the emergence of shadow banking, and the need for consumer protection amid the increasing penetration of fintech (Nasution et al., 2022).

The main problem that is the focus of this research is the importance of an efficient, fast, safe, and reliable payment system as the foundation for rupiah stability. Risks such as default, fraud, and systemic disruptions can damage public trust in the national financial system. Furthermore, the gap between fintech innovation and the regulatory framework has the potential to create new vulnerabilities that need to be anticipated. This situation is increasingly relevant for Indonesia, which is experiencing rapid post-pandemic digital economic growth, with the value of the digital economy projected to be one of the largest in the Southeast Asian region (Sheng & Gu, 2018).

Based on these conditions, this study aims to analyze the strategic role of Bank Indonesia in the payment system. This role is not only technical in providing infrastructure, but also strategic in maintaining monetary stability, banking health, and supporting national economic growth. With an adaptive approach to technological and regulatory developments, BI is expected to be able to strengthen the payment system as the foundation of Indonesia's economic resilience in the digital era.

2. Literature Review

2.1. The Role of Central Banks in the Global Context

Central banks in various countries are facing major challenges in the digital era marked by the development of financial technology, the emergence of cryptocurrencies, and the push towards a cashless society. At the global level, central banks focus not only on controlling inflation and monetary stability, but also on developing an efficient, secure, and inclusive payment system (Duarte, 2019). Digitalization is driving significant changes in the structure of financial transactions, thus demanding new and responsive regulations. International research shows that CBDCs can be an important instrument for maintaining monetary sovereignty and improving the efficiency of cross-border payment systems. However, its implementation still raises debate, especially related to financial stability, data protection, and consumer privacy risks.

In addition, the trend towards a cashless society that occurred in Europe, America, and East Asia shows that people are increasingly leaving cash in their daily economic activities. This poses both an opportunity and a challenge for central banks to reorganize their role in the digital financial ecosystem. Empirical studies have found that the success of the transition to a cashless society is strongly influenced by the readiness of digital infrastructure, financial literacy, and the level of public trust in monetary authorities (Boar & Wehrli, 2021). Thus, the role of global central banks is increasingly complex: not only maintaining monetary stability, but also overseeing the digital transformation of finance to remain in line with the principles of security and sustainability.

2.2. Payment System and Economic Stability in Indonesia

In Indonesia, the role of Bank Indonesia (BI) as a central bank has undergone important changes over time. Through Law No. 23 of 1999 and strengthened by the Financial Sector Development and Strengthening Law, BI has a mandate to maintain the stability of the rupiah through monetary policy, payment system regulation, and banking supervision. The payment system is one of the main instruments that ensures smooth monetary policy and economic stability. The efficiency and security of payment systems have been proven to support economic growth by providing adequate liquidity and reducing the risk of default in interbank and retail transactions (Bordo & Levin, 2022).

The importance of the payment system in Indonesia can be seen from the development of various infrastructures such as SKNBI, RTGS, BI-FAST, and QRIS. This innovation not only speeds up the transaction process, but also expands people's access to formal financial services. Recent research shows that BI-FAST is able to reduce transaction costs and improve banking operational efficiency. This is in line with BI's goal to strengthen the reliability of the national payment system in supporting macroeconomic stability. In addition, the implementation of QRIS has accelerated the digitization of payments among MSMEs, which in turn increases financial inclusion and expands the digital acceptance base across Indonesia (Handayani et al., 2021). Therefore, the role of the payment system in Indonesia is closely related to national economic stability.

2.3. Digital Transformation and Payment System Challenges

Digital transformation has a major impact on the payment system in Indonesia. Innovations such as mobile banking, e-wallets, QRIS, BI-FAST, and SNAP show how people are moving from conventional payment methods to digital-based systems. With this strategy, BI seeks to improve transaction efficiency while strengthening financial inclusion, especially for people who were previously unreached by formal banking services (Nasution et al., 2021).

However, digitalization also presents serious challenges. The low financial literacy of the Indonesian people is the main obstacle to the adoption of digital services equally. In addition, cybersecurity threats are increasing as the volume of digital transactions increases. The potential for shadow banking is also a new risk that can disrupt the stability of the financial system if not properly supervised. Recent research emphasizes the need for adaptive regulation and collaboration between BI, the financial industry, and fintech operators in dealing with these risks. Thus, the digitalization of the payment system must be balanced with strengthening regulations, strict supervision, and consumer protection in order to provide maximum benefits for the national economy.

3. Methods

This study uses a qualitative approach with a descriptive type of research. The qualitative approach was chosen because it was able to provide a deep understanding of the phenomenon being studied, namely the strategic role of Bank Indonesia in the payment system. Qualitative research does not focus on numbers or statistical data, but rather on understanding the meaning, context, and relationships between the various aspects involved in the payment system. Meanwhile, descriptive nature is used to systematically describe the ongoing facts, situations, and conditions, so that this study can provide a comprehensive picture of how Bank Indonesia carries out its functions in supporting monetary stability and the national economy. The first stage in this study is the collection of secondary data. Data was obtained from various sources, such as official Bank Indonesia reports, government publications, legal documents related to payment systems, and relevant academic articles.

In addition, data is also collected from publications of international institutions that have authority on the issue of the global payment system, such as the Bank for International Settlements (BIS) and the World Bank. This secondary data is the basis for understanding both the global and national contexts related to payment systems and the role of central banks. The second stage is data classification. The data obtained were then grouped according to the main themes of the study, namely the role of central banks in the global context, the evolution of regulations and the role of Bank Indonesia, the digital transformation of the payment system, and the challenges and opportunities faced. This classification process aims to facilitate the preparation of research narratives to be more structured and systematic. Through this process, the relationship between Bank Indonesia's strategic role and monetary stability, banking health, and economic growth can be analyzed more clearly.

The third stage is descriptive analysis. The analysis is carried out by interpreting the data that has been classified and compiling it in the form of a coherent narrative. This analysis not only describes the actual conditions, but also highlights the interconnectedness between variables, for example between payment system innovation and monetary stability or between regulation and fintech developments. This descriptive analysis helps to find patterns and trends that are relevant to the focus of the research.

This research also adopts a normative approach, namely assessing the extent to which the policies and regulations implemented by Bank Indonesia are in line with international best practices. Thus, this study not only describes the facts, but also provides an evaluation of the policy direction being taken. The results of the research are expected to be able to contribute in the form of theoretical understanding and practical recommendations for strengthening the payment system in Indonesia. With this descriptive qualitative approach, the research is expected to provide a complete and comprehensive picture of how Bank Indonesia's strategic role in the payment system can support monetary stability, strengthen banking, and drive economic growth in the digital era.

4. Results

The results of this study show that the role of Bank Indonesia (BI) in the payment system cannot be seen as a purely technical function, but has strategic significance that is closely related to monetary stability, banking health, and national economic resilience. From the analysis of the data obtained, there are several important findings regarding BI's role in the global, national context, digital transformation, and challenges faced in the implementation of modern payment systems. These findings reinforce the argument that payment systems are at the heart of financial stability and the driving force for economic growth in the digital age.

First, from a global perspective, the payment system is undergoing a massive transformation due to the development of digital technology, the emergence of cryptocurrencies, and the discourse on the implementation of Central Bank Digital Currency (CBDC). Central banks in various countries have been experimenting with CBDCs as a response to the increasing use of stablecoins and private crypto assets that have the potential to reduce the effectiveness of monetary policy. International studies show that the implementation of CBDCs can improve the efficiency of cross-border transactions, expand financial inclusion, and significantly reduce payment system costs (Auer et al., 2021). However, this implementation also presents a risk of stability if it is not supported by the right regulations, especially related to cybersecurity, data privacy, and banking liquidity management. These global findings are relevant to the Indonesian context, where BI must anticipate the impact of global disruption on the domestic financial system.

Second, at the national level, BI's role has evolved in line with regulatory developments and economic needs. Based on Law No. 23 of 1999, BI is not only tasked with maintaining monetary stability, but also regulating and supervising the payment system and banking. The findings of this study confirm that BI's mandate in the payment system is becoming increasingly strategic amid the rapid growth of the digital economy. Data shows that Indonesia's digital transaction volume has continued to increase sharply in the past five years, driven by the adoption of fintech, e-commerce, and e-wallet services. BI responded by launching modern payment infrastructure such as BI-FAST, which enables real-time fund transfers at low costs, and Quick Response Indonesian Standard (QRIS) which accelerates the adoption of QR code-based digital payments in various walks of life. This policy has been proven to strengthen transaction efficiency and expand access to finance, especially for the micro, small, and medium enterprises (MSMEs) sector (Handayani et al., 2021).

Third, the results of the study show that the payment system is closely related to the effectiveness of monetary policy. The stability of the rupiah value is not only influenced by monetary instruments such as interest rates and foreign exchange reserves, but also by the reliability of the payment system. A secure and efficient payment system is able to prevent the risk of default, maintain public confidence in the currency, and support the effective transmission of monetary policy. Previous research confirms that disruptions in the payment system can pose systemic risks that have the potential to permeate the banking sector and the economy as a whole (Agung & Juhro, 2016). Therefore, BI has a vital role in linking monetary policy with real economic activities through a reliable payment system.

Fourth, digital transformation in Indonesia's payment system has shown significant progress. This blueprint emphasizes the principles of Fast, Easy, Affordable, Secure, and Reliable (FEASR) as the main pillars of the future payment system. The results of the analysis show that this policy has encouraged increased financial inclusion through expanding access to digital services, increasing transaction cost efficiency, and integrating the national payment ecosystem. QRIS, for example, has succeeded in expanding payment digitalization among MSMEs and the informal sector, while BI-FAST strengthens interbank interoperability with low cost and high speed. The implementation of this policy shows that BI is not only focused on infrastructure development, but also on building an inclusive and resilient digital financial ecosystem.

Fifth, this study found that while digital transformation brings many opportunities, there are also serious challenges that must be faced. The main challenges include low financial literacy in some communities, increasing cybersecurity risks, and the phenomenon of shadow banking that has the potential to disrupt the stability of the financial system. Low financial literacy causes some people to still be hesitant or reluctant to use digital payment services, thus causing a gap in technology adoption. On the other hand, the increase in digital transactions also increases the risk of cyberattacks and online fraud, which can damage public trust. In addition, the emergence of non-formal financial institutions that operate outside the supervision of regulators (shadow banking) has the potential to weaken the effectiveness of BI's supervision of the national financial system. The results of the study emphasized that BI needs to strengthen regulations, increase cooperation with the fintech industry, and expand financial literacy programs to overcome these challenges.

Sixth, the results of the study also highlight the importance of adaptive regulation in dealing with the rapid development of fintech. Fintech innovation often moves faster than existing regulations, creating gaps that have the potential to pose new risks. For example, the development of Buy Now Pay Later (BNPL) services and digital loans that are very fast has the potential to cause bad credit problems if not properly supervised. The findings of the study show that BI has made efforts to address this challenge through the issuance of regulations related to electronic money, payment system operator licenses, and digital transaction security standards. However, the effectiveness of this regulation still requires continuous evaluation and adjustment to be able to keep pace with the dynamics of digital financial innovation (Farhi & Tirole, 2021).

Seventh, this study reveals that the success of Indonesia's payment system is also influenced by external factors, especially integration with the global financial system. With the increasing openness of cross-border transactions, domestic payment systems must have high interoperability in order to adapt to international standards. BI has strengthened cooperation with other countries' central banks in terms of cross-border payment systems, including cross-border QRIS initiatives in the Southeast Asian region. This initiative is expected to strengthen Indonesia's position in international trade, improve the efficiency of cross-border transactions, and support rupiah exchange rate stability. The analysis shows that this strategy is in line with global trends and has the potential to increase Indonesia's competitiveness in the regional digital economy (Sheng & Gu, 2018).

Overall, the results of this study confirm that BI's role in the payment system is multidimensional. BI not only functions as a technical infrastructure operator, but also as a regulator, supervisor, and facilitator that ensures the payment system supports monetary stability and the national economy. The implementation of policies such as BI-FAST, and QRIS shows BI's success in developing an inclusive and efficient payment system. However, challenges such as financial literacy, cybersecurity, and regulatory gaps with fintech remain major homework that must be seriously addressed. The results of this study also confirm that BI's success in managing the payment system will greatly determine the direction of Indonesia's digital economy growth in the future. Thus, the payment system is not just a means of transaction, but a strategic foundation for monetary stability, banking health, and national economic resilience in the digital era.

5. Discussion

The results of the study show that the role of Bank Indonesia (BI) in the payment system is not only technical-operational, but also strategic in maintaining monetary, banking, and national economic stability. This discussion will emphasize three main points: the linkage of the payment system with monetary policy, BI's strategic role in digital transformation, and the challenges that must be faced in realizing an inclusive and resilient payment system. First, the payment system proved to be one of the important channels in the transmission of monetary policy. The effectiveness of monetary policy, such as inflation control and rupiah exchange rate stability, is greatly influenced by the smoothness and reliability of the payment system. If the payment system is disrupted, systemic risks can arise and undermine public confidence in currency stability. Research shows that the integrity of the payment system directly contributes to public trust in central banks and strengthens the function of monetary stabilization (Bordo & Levin, 2022). Thus, BI's success in maintaining the payment system not only supports the technical stability of transactions, but also supports the achievement of national macroeconomic goals.

Second, the digital transformation of the payment system has strategic implications for financial inclusion and economic efficiency. The implementation of BI policies such as QRIS and BI-FAST shows that technological innovations are able to expand access to financial services to previously unreached community groups. This is in line with the national financial inclusion agenda which aims to increase public participation in the formal financial system. Previous research confirms that payment digitalization increases economic productivity through transaction cost efficiency, accelerates liquidity flows, and supports the growth of the MSME sector (Tay et al., 2022). Therefore, BI has an important role to play in ensuring that digital transformation not only benefits the formal sector, but can also embrace people in remote and low-income areas.

Third, the challenges faced by BI in managing the payment system are quite complex. The low financial literacy of the public has led to a gap in the adoption of digital services. In addition, cybersecurity threats are increasing along with the rapid growth of electronic transactions. The phenomenon of shadow banking and the emergence of fintech innovations that are faster than regulations are also new risks that can disrupt the stability of the financial system. Recent research emphasizes that regulators must have adaptive, flexible, and collaboration-based policies to deal with these dynamics. Regulations should not be too rigid, but also should not be too loose, in order to still protect consumers while encouraging innovation (Farhi & Tirole, 2021). As such, BI's success in managing payment systems is largely determined by its ability to strike a balance between strict oversight and support for innovation.

This discussion also underlined the importance of international cooperation in strengthening Indonesia's payment system. With the increasing openness of cross-border transactions, BI needs to ensure that domestic payment systems have interoperability that is in line with global standards. The cross-border QRIS initiative being developed in Southeast Asia is an important step in regional integration, which not only improves the efficiency of cross-border transactions, but also strengthens the stability of the rupiah exchange rate in the long term. This emphasizes that payment system strengthening strategies must be placed in a global context, not just domestic.

This discussion shows that BI is in a central position in the national payment system ecosystem. Its strategic role is not only related to the provision of infrastructure, but also in ensuring that the payment system can support monetary stability, strengthen financial inclusion, and maintain national economic resilience. Digital transformation opens up huge opportunities, but it also poses serious challenges that demand adaptive policy responses. With the right strategy, BI has the potential to make Indonesia's payment system the main foundation for building an inclusive, efficient, and globally competitive digital economy.

6. Conclusion

This research confirms that the role of Bank Indonesia (BI) in the payment system has a strategic dimension that goes beyond the technical function. BI not only acts as a regulator and operator of payment infrastructure, but also as a guarantor of monetary stability, a strengthening of the banking sector, and a supporter of national economic growth. An efficient, fast, safe, and reliable payment system has proven to be the key to success in maintaining public confidence in the rupiah and ensuring smooth economic activities. The rapid digital transformation has brought great opportunities for financial inclusion and transaction efficiency. The implementation of BI policies such as BI-FAST and QRIS shows that digital innovation can drive economic growth while expanding people's access to formal financial services. However, challenges in the form of low financial literacy, cybersecurity risks, and regulatory gaps with fintech innovations must be seriously anticipated. With adaptive policies, collaboration with the financial industry, and international cooperation, BI has the potential to strengthen the national payment system while supporting Indonesia's economic resilience in the digital era. Therefore, the payment system is not only a transaction instrument, but a strategic foundation for monetary stability and long-term economic development.

References

Abubakar, L., & Handayani, T. (2022). Penguatan regulasi: Upaya percepatan transformasi digital perbankan di era ekonomi digital. *Masalah-Masalah Hukum*, *51*(3), 259-270.

Agung, J., & Juhro, S. M. (2016). Managing Monetary and Financial Stability in a Dynamic Global Environment: Bank Indonesia's Policy Perspectives. *Managing Monetary and Financial Stability in a Dynamic Global Environment: Bank Indonesia's Policy Perspectives (October 2016). BIS Paper*, (88f).

Auer, R., Cornelli, G., & Frost, J. (2020). Rise Of The Central Bank Digital Currencies: Drivers, Approaches And Technologies. *International Journal of Central Banking*, *19*(4), 185-214.

Boar, C., & Wehrli, A. (2021). Ready, Steady, Go?-Results of the Third BIS Survey on Central Bank Digital Currency. *BIS papers*.

Bordo, M. D., & Levin, A. T. (2022). Central Bank Digital Currency and the Future of Monetary Policy*, uLevin, Andrew T.*. [Sl]: SSRN.

Duarte, C. B. (2019). Alternative monetary targets, instruments and future monetary policy frameworks. *Review of political economy*, *31*(4), 582-601.

Farhi, E., & Tirole, J. (2021). Shadow banking and the four pillars of traditional financial intermediation. *The Review of Economic Studies*, *88*(6), 2622-2653.

Handayani, M., Farliani, T., Fandika, R., & Islami, I. (2021). Peran Bank Indonesia Dalam Menjaga Stabilitas Sistem Keuangan Di Tengah Pandemi Covid 19. *Jurnal Penelitian Ekonomi Akuntansi (JENSI)*, *5*(2), 171-182.

Nasution, L. N., Sadalia, I., & Ruslan, D. (2022). Investigation of Financial Inclusion, Financial Technology, Economic Fundamentals, and Poverty Alleviation in ASEAN-5: Using SUR Model. *Abac Journal*, *42*(3), 132-147.

Sheng, M., & Gu, C. (2018). Economic growth and development in Macau (1999–2016): The role of the booming gaming industry. *Cities*, *75*, 72-80.

Wardhono, A., Indrawati, Y., Qoriah, C. G., & Nasir, M. A. (2019). *Perilaku kebijakan bank sentral di Indonesia*. Jember: Pustaka Abadi.

Tay, L. Y., Tai, H. T., & Tan, G. S. (2022). Digital financial inclusion: A gateway to sustainable development. *Heliyon*, *8*(6).