BI-FAST: Revolutionising Fast, Secure and Affordable Payment Systems in Indonesia

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***ABSTRAK**: Seiring dengan perkembangan digitalisasi sistem keuangan, inovasi dalam sistem pembayaran menjadi kebutuhan penting untuk mendukung efisiensi dan stabilitas ekonomi nasional. Penelitian ini bertujuan untuk menganalisis konsep, karakteristik, peran, manfaat, serta tantangan implementasi BI-FAST sebagai inovasi sistem pembayaran ritel di Indonesia. Metode yang digunakan adalah studi kepustakaan (library research) dengan menelaah berbagai jurnal ilmiah, laporan resmi Bank Indonesia, dan publikasi terkait sistem pembayaran digital. Hasil kajian menunjukkan bahwa BI-FAST berperan signifikan dalam meningkatkan efisiensi sistem pembayaran nasional melalui transaksi real-time selama 24 jam, biaya transfer yang rendah, serta interoperabilitas antarbank. Implementasi sistem ini mendukung percepatan perputaran uang, optimalisasi operasional perbankan, dan penguatan integrasi sistem pembayaran nasional. Meskipun memberikan manfaat berupa kemudahan, kecepatan, dan efisiensi biaya transaksi, penerapannya masih menghadapi tantangan berupa literasi keuangan digital yang belum merata, keterbatasan infrastruktur teknologi, serta risiko keamanan siber.*

***Kata kunci**: BI-FAST, sistem pembayaran digital, efisiensi transaksi, perbankan digital*

***ABSTRACT**: Along with the development of financial system digitalisation, innovation in payment systems has become an important requirement to support national economic efficiency and stability. This study aims to analyse the concept, characteristics, role, benefits, and challenges of implementing BI-FAST as an innovation in retail payment systems in Indonesia. The method used is library research by reviewing various scientific journals, official reports from Bank Indonesia, and publications related to digital payment systems. The results of the study show that BI-FAST plays a significant role in improving the efficiency of the national payment system through 24-hour real-time transactions, low transfer costs, and interbank interoperability. The implementation of this system supports the acceleration of money circulation, optimisation of banking operations, and strengthening of the national payment system integration. Although it provides benefits in terms of convenience, speed, and transaction cost efficiency, its implementation still faces challenges in the form of uneven digital financial literacy, limited technological infrastructure, and cyber security risks.*

***Keywords**: BI-FAST, digital payment system, transaction efficiency, digital banking*

1. INTRODUCTION

Advances in information and communication technology have driven the transformation of financial systems globally, particularly in the payment systems sector. Digitalisation has encouraged changes in people's behaviour from using cash to more practical and efficient electronic transactions (Maulidah et al., 2024). In Indonesia, the increase in the use of non-cash transactions has occurred in line with the rapid growth of the digital economy, marked by the increasing use of mobile banking, internet banking, and electronic wallets. The public now demands a payment system that is not only fast and efficient, but also secure, accessible, and affordable for all segments of society. A reliable payment system is one of the important pillars in maintaining financial stability

while supporting the smooth running of national economic activities (Fadhilah et al., 2021).

The payment system is closely related to financial stability and the effectiveness of monetary policy. The smooth flow of funds in the economy affects the velocity of money, transaction efficiency, and public consumption and investment activities (Fauzi et al., 2023). Therefore, payment system innovation is an important requirement to support economic efficiency, accelerate fund distribution, and strengthen monetary policy transmission.

As the monetary authority and administrator of the national payment system, Bank Indonesia has a strategic role in responding to these dynamics through the development of modern payment infrastructure. One of the policies implemented is the launch of BI-FAST as a retail payment system infrastructure that enables real-time interbank fund transfers, operates 24 hours a day, and charges relatively low transaction fees (Alsa et al., 2025). BI-FAST was designed to overcome the limitations of the previous fund transfer system, which was still dependent on specific operating hours and charged higher transfer fees. Through the implementation of BI-FAST, it is hoped that transaction efficiency will increase, transaction barriers will decrease, and public access to formal financial services will become more widespread (Simanjuntak et al., 2025).

BI-FAST also plays a role in promoting financial inclusion. Low transfer fees and ease of access enable the public, including micro, small and medium enterprises (MSMEs), to conduct transactions more easily and cheaply (Marginingsih, 2023). The ease of interbank transactions facilitates trade activities, speeds up payments between businesses, and simplifies the distribution of aid funds and other digital payments (Atmaja & Paulus, 2022). BI-FAST is designed with high security standards to maintain public trust in electronic transactions. This system is part of the implementation of the 2025 Indonesian Payment System Blueprint (BSPI 2025), which emphasises integration, interoperability, and strengthening consumer protection in the national payment system. This integration enables interbank and inter-payment platform connectivity so that transactions can be carried out more quickly and practically.

For the banking industry, the implementation of BI-FAST encourages the transformation of services towards digital banking. Banks are required to improve service quality, strengthen system security, and develop innovative features to maintain competitiveness (Lubis & Hasniati, 2023). Meanwhile, low transfer fees have the potential to reduce banks' fee-based income, so financial institutions need to adjust their business strategies by developing other value-added services (Syahrani & Fasa, 2024). This shows that BI-FAST not only affects consumer behaviour but also influences the banking industry's business model.

Despite its great potential to improve payment system efficiency, the implementation of BI-FAST still faces various challenges. The level of digital financial literacy among the public is uneven, especially in non-urban areas (Johan, 2022). In addition, the readiness of technological infrastructure, internet network quality, and cyber security risks are also important factors that affect the optimal utilisation of digital payment systems (Ningsih et al., 2025). Without this readiness, the benefits of BI-FAST cannot be fully realised by the entire community.

Based on these conditions, an academic study based on literature is needed to comprehensively understand the concept, role, benefits, and challenges of implementing BI-FAST in the national payment system. This study is expected to provide a theoretical overview of the position of BI-FAST in the Indonesian payment system ecosystem as well as a reference for the development of future payment system policies.

Based on this background, the research questions are: (1) what are the concepts and characteristics of BI-FAST as a retail payment system in supporting fast, secure, and affordable transactions in Indonesia based on a literature review; (2) what is the role of BI-FAST in improving the efficiency of the national payment system according to

published research and policies; (3) the benefits of implementing BI-FAST for the public and the banking industry as identified in various literature; and (4) the challenges that arise in implementing BI-FAST based on previous research findings and relevant policy documents.

In line with these issues, this research aims to analyse the concept and characteristics of BI-FAST as a fast, secure, and affordable retail payment system innovation; examine its role in improving the efficiency and effectiveness of the national payment system; identify the benefits of its implementation for the public and the banking industry; and evaluate the various implementation challenges as considerations in the development of payment system policies.

2. METHOD

This research utilises qualitative research with a library research approach. Qualitative research is used because it aims to gain an in-depth understanding of the concepts, roles, benefits, and challenges of BI-FAST implementation based on literature analysis, rather than through statistical data processing(Creswell, 2018). The literature research method focuses on collecting and analysing various written sources relevant to the research topic.

The approach used is descriptive-analytical, which systematically describes various theories and findings from previous studies, then analyses them to obtain a comprehensive understanding (Sugiyono, 2023). Data collection techniques were carried out through documentation studies, by compiling secondary data in the form of scientific journal articles, official Bank Indonesia reports, academic books, and policy documents related to digital payment systems (Hali et al., 2025). The literature selection process was carried out systematically through searching scientific databases such as Google Scholar, considering the relevance of the topic, the credibility of the source, and the year of publication. The data analysis technique used qualitative content analysis, which included data reduction, categorisation, interpretation, and conclusion drawing to produce a comprehensive synthesis of the role of BI-FAST in the national payment system (Creswell, 2018).

3. RESULT AND DISCUSSION

3.1 Concept and Characteristics of BI-FAST as a Retail Payment System

Based on the results of a literature review, BI-FAST is a national retail payment system infrastructure developed by Bank Indonesia to support real-time, secure, and low-cost payment transactions. BI-FAST enables interbank fund transfers 24 hours a day without depending on banking operating hours, thereby increasing the flexibility and speed of public financial transactions. The presence of BI-FAST is part of the transformation of the national payment system towards an integrated and efficient digital ecosystem (Bank Indonesia, 2021).

The main characteristics of BI-FAST include: (1) instant transaction speed (real-time settlement), (2) relatively low and affordable transaction costs for the public, (3) 24/7 service availability, (4) the use of proxy addresses such as telephone numbers or email addresses as alternatives to account numbers, and (5) a high level of security through an integrated surveillance and risk management system (Marginingsih, 2023). The integration of BI-FAST with various digital payment channels such as mobile banking, internet banking, and other electronic channels further expands public access to fund transfer services.

Prihasto et al. (2023) show that the implementation of BI-FAST through mobile banking and internet banking channels improves the ease of access to financial services for users. This integration allows customers to transfer funds across banks without depending on bank operating hours. Meanwhile, Hali et al. (2025) explain that BI-FAST

does not stand alone, but is part of the national digital payment ecosystem alongside QRIS and other electronic payment services. However, Lubis and Hasniati (2023) found that the availability of BI-FAST features on mobile banking applications does not automatically increase the level of usage. System adoption is still influenced by user understanding, perceptions of ease of use, and the technological readiness of banking institutions. This shows that technological characteristics do not always correlate with the level of utilisation.

The retail payment system infrastructure is directed toward modernizing infrastructure to be more efficient and secure by leveraging the latest technology. It is expected to facilitate the public's need for digital payment methods that are mobile, fast, easy, secure, affordable, and reliable. Accordingly, the development of BI-FAST is expected to support Bank Indonesia in creating a national retail payment system capable of addressing the challenges of the current digital era. BI-FAST, together with the National Clearing System of Bank Indonesia (SKNBI) and the National Payment Gateway (GPN), will serve as the back-end infrastructure within the configuration of the national retail payment system.

As a back-end infrastructure, BI-FAST plays a role in the settlement of retail payment system transactions. The configuration of the Retail Payment System can be seen in the following figure:

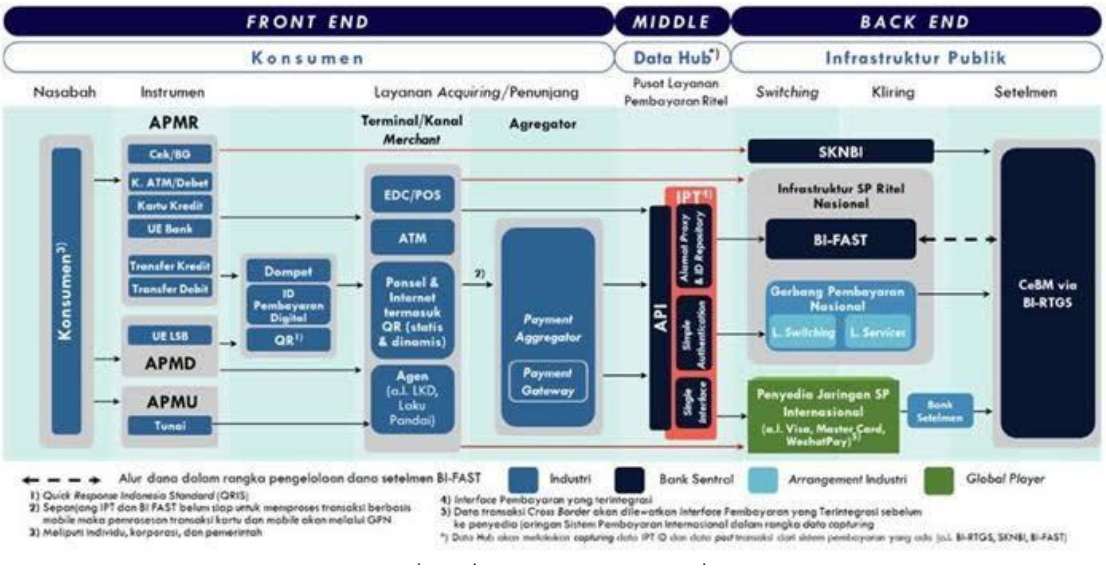

Figure 1. BI-Fast role

Based on the figure above, BI-FAST was developed as a national retail payment system infrastructure that accommodates the availability of real-time, seamless payment services accessible at all times (24/7), with a high level of end-to-end security and efficiency, in order to support the development of the Digital Financial Economy (DFE). The objective functions underlying the development of BI-FAST are as follows:

1. BI-FAST, as the national retail payment system infrastructure, is expected to serve as a foundational platform that enables the development of more advanced and comprehensive services. The presence of BI-FAST is anticipated to encourage innovation and competition among payment system industry players.
2. The implementation of BI-FAST is expected to support financial inclusion through ease of transactions, affordable pricing, and interoperability of payment channels, particularly mobile channels.

3. By developing BI-FAST, Bank Indonesia plays an active role in promoting the expansion of the digital ecosystem through the provision of a more efficient payment system infrastructure that leverages the latest technology.

3.2 The Role of BI-FAST in Improving the Efficiency of the National Payment System

The results of the literature analysis show that BI-FAST plays a significant role in improving the efficiency of the national payment system. Ningsih et al. (2025) state that real-time payment systems accelerate the circulation of money in the economy, thereby increasing public liquidity. This is in line with Bank Indonesia's (2019) view in the 2025 Indonesian Payment System Blueprint, which emphasises the importance of payment system integration and interoperability. This efficiency is also felt by the banking industry through operational optimisation and reduced transaction management costs. Hali et al. (2025) also explain that the integration of BI-FAST with digital payment channels strengthens the efficiency of interbank transactions as it no longer requires a gradual clearing process. From the banking industry's perspective, efficiency is reflected in reduced transaction operating costs and simplified settlement processes.

BI-FAST encourages business process optimisation and operational efficiency. An integrated, modern technology-based system enables a reduction in transaction management costs, resource savings, and improved service quality. This efficiency also encourages the creation of a more competitive cost structure among financial institutions. In addition, BI-FAST is an integral part of the implementation of the 2025 Indonesian Payment System Blueprint (BSPI), which emphasises digitalisation, integration, interoperability, and strengthening the national payment system infrastructure (Indonesia, 2019). Through BI-FAST, Bank Indonesia seeks to develop a payment system that is not only technically efficient, but also capable of strengthening financial system stability and supporting monetary policy. Better integration of payment systems also facilitates transaction monitoring and systemic risk mitigation.

Limitations in information and communication technology infrastructure in several regions of Indonesia mean that the use of digital payment services, including BI-FAST, is still more dominant in urban areas. Inequalities in internet access and digital devices hinder the adoption of electronic payment services in rural communities, so that the efficiency of the national payment system is not yet fully equitable (Indonesia, 2019).

3.3 Benefits of BI-FAST Implementation for the Community and Banking

1. Benefist BI-FAST for the Community

   Based on the analysis of previous studies, the implementation of BI-FAST generates four principal benefits for the community. These benefits are synthesised from various literature findings and are summarised in the following figure:

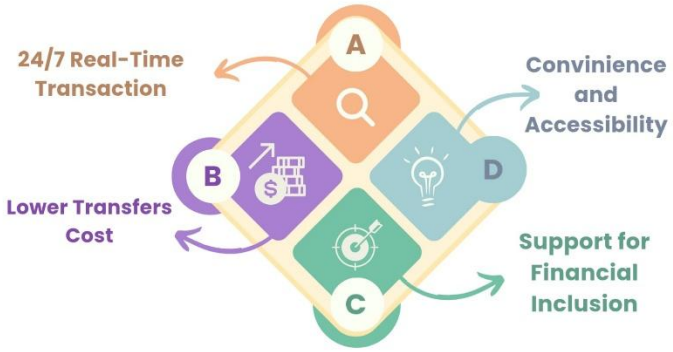

Figure 2. Benefits BI-Fast for the Community

The implementation of BI-FAST provides substantial benefits for the community, particularly in terms of transaction efficiency, affordability, accessibility, and financial inclusion. BI-FAST enables instant fund transfers that operate continuously without being limited by banking operational hours, thereby increasing transaction flexibility and supporting dynamic economic activities in the digital era (Marginingsih, 2023). The acceleration of real-time transaction processing also contributes to improving liquidity circulation within the economy (Ningsih et al., 2025). In addition, compared to the previous interbank transfer mechanism, BI-FAST offers relatively lower transaction fees, providing direct financial savings, especially for lower-middle-income communities and micro, small, and medium enterprises (MSMEs) that are sensitive to transaction costs The implementation of BI-FAST provides substantial benefits for the community, particularly in terms of transaction efficiency, affordability, accessibility, and financial inclusion. BI-FAST enables instant fund transfers that operate continuously without being limited by banking operational hours, thereby increasing transaction flexibility and supporting dynamic economic activities in the digital era (Marginingsih, 2023).

The acceleration of real-time transaction processing also contributes to improving liquidity circulation within the economy (Ningsih et al., 2025). In addition, compared to the previous interbank transfer mechanism, BI-FAST offers relatively lower transaction fees, providing direct financial savings, especially for lower-middle-income communities and micro, small, and medium enterprises (MSMEs) that are sensitive to transaction costs (Maulidah et al., 2024). Empirical findings further indicate that cost efficiency significantly influences user satisfaction and encourages a shift toward digital transactions (Prihasto et al., 2023). The integration of BI-FAST into mobile banking and internet banking platforms enhances convenience and accessibility, while the use of proxy addresses such as phone numbers or email addresses simplifies the transfer process and reduces transaction complexity. Moreover, affordable pricing and seamless interoperability contribute to broader public participation in the formal financial system, thereby accelerating financial inclusion and strengthening Indonesia's digital economic ecosystem (Fadhilah et al., 2021).

2. Benefits BI-FAST for the Banking Industry

Based on the literature review, the implementation of BI-FAST generates several key benefits that can be systematically identified. To provide a clearer overview, these benefits are summarised in the following figure.

Figure 3. Benefits BI-FAST for the Banking Industry

The implementation of BI-FAST also generates significant benefits for the banking industry, particularly in terms of service quality enhancement, operational efficiency, digital innovation, and competitiveness. Faster and more reliable transaction processing improves customer satisfaction and strengthens trust in digital banking services, thereby creating a strategic advantage in an increasingly competitive financial environment (Lubis & Hasniati, 2023). Furthermore, BI-FAST reduces transaction management complexity by eliminating gradual clearing processes and enabling real-time settlement, which lowers operational costs and enhances overall banking efficiency (Hali et al., 2025). As part of the national payment system modernisation agenda initiated by Bank Indonesia, BI-FAST provides foundational infrastructure that encourages digital service innovation and strengthens system interoperability (Indonesia, 2019). This infrastructure enables banks to expand digital-based financial products and services. Although lower transaction fees may reduce fee-based income margins, banks are encouraged to adjust their business strategies and develop value-added services to maintain competitiveness in the digital era (Syahrani & Fasa, 2024). This dynamic indicates that BI-FAST influences not only transaction mechanisms but also the broader banking business model transformation.

3.4 Challenges and Obstacles in BI-FAST Implementation

Despite offering various advantages, literature shows that BI-FAST implementation still faces a number of structural and technical challenges. One of the main challenges is the uneven level of digital and financial literacy among the public (Marginingsih, 2023). Lubis and Hasniati (2023) also emphasise that the level of BI-FAST usage is not only determined by the availability of technology, but also by the level of user trust in digital banking services. This indicates that behavioural factors play a role in the adoption of financial technology. A lack of understanding of the features and security of digital transactions can hinder the optimal utilisation of the system.

Another challenge relates to the readiness of technological infrastructure. Not all regions have adequate internet network quality to support stable real-time transactions. Banks with more advanced technological capabilities tend to be quicker to adopt and optimise BI-FAST compared to banks that are still in the process of strengthening their digital systems (Alwi et al., 2024).

Cybersecurity is also a major concern. The increase in digital transaction volumes has the potential to increase the risk of cybercrime such as phishing, malware, and social engineering. Therefore, strengthening security systems, implementing strict risk management, and raising digital security awareness among users are urgent needs (Putra & Julianto, 2022). Overall, these challenges indicate that the success of BI-FAST implementation is not only determined by technological aspects, but also by institutional readiness, regulations, and user behaviour.

4. CONCLUSION

Based on a literature review, BI-FAST is an innovative retail payment system infrastructure developed by Bank Indonesia to enable fast, secure and affordable financial transactions. Its main characteristics are 24-hour real-time transactions, low transfer fees, interbank interoperability, and easy access through various digital channels. Its implementation plays a role in improving the efficiency of the national payment system through accelerated money circulation, optimised banking operations, and strengthened payment system integration in accordance with the 2025 Indonesian Payment System Blueprint. BI-FAST also provides tangible benefits to the public in the form of ease and efficiency of transaction costs and encourages the digitalisation of

banking services and financial inclusion. However, its implementation still faces challenges in the form of low digital financial literacy, technological infrastructure inequality, and potential cyber security risks. Therefore, it is necessary to improve digital education, strengthen technological infrastructure, and ensure continuous collaboration between regulators, banks, and the public so that the implementation of BI-FAST can run optimally and sustainably.

5. REFERENCES

Alsa, A., Wasilah, K., Rakhmad, D., & Ashari, W. (2025). The Role Of Digital Payment Systems in Enhancing Financial Inclusion : A Literature Review in the Context of Indonesian Banking. *Journal of Economics and Banking*, *2*(1), 45–57.

Alwi, M. N., Bahari, F., Ramadhan, A., Andriani, M., & Semmawi, R. (2024). Tantangan dan Peluang Perbankan Digital: Studi Kasus Inovasi Keuangan dan transformasi Perbankan. *Jurnal Cahaya Mandalika*, *3*(2).

Atmaja, Y. S., & Paulus, D. H. (2022). Partisipasi Bank Indonesia dalam Pengaturan Digitalisasi Sistem Pembayaran Indonesia. *Jurnal Masalah-Masalah Hukum*, *51*(3), 271–286.

Creswell, J. W., & Creswell, J. D. (2018). *Research Design Qualitative, Quantitative, and Mixed Methods Appoarches* (Fifth Edit). SAGE Publications.

Fadhilah, J., Aja, C., Layyinna, A., & Khatami, R. (2021). Pemanfaatan Teknologi Digital Wallet sebagai Solusi Alternatif Pembayaran Modern : Literature Review. *Journal of Computer Science an Engineering*, *2*(2), 89–97.

Fauzi, A., Widayati, E., Putri, T. A., Abiyyah, I. A., Sasmitha, M., Maulana, R., Aulia, T., & Herdinov, A. (2023). Peranan bank indonesia dalam mengatur dan menjaga kelancaran sistem pembayaran. *Jurnal Akuntansi Dan Manajemen Bisnis*, *3*(1), 1–10.

Hali, A., Sadiah, H., Dewi, Z. D., Syahputra, M. Z., Desilva, V., & Nuraya, A. S. (2025). Digitalisasi QRIS , BI-Fast , dan APBN dalam Mendukung Kebijakan Moneter dan Fiskal Indonesia. *Jurnal Ekonomika, Manajemen Dan Bisnis*, *4*(1), 258–266.

Indonesia, B. (2019). *Bank Indonesia : Menavigasi Sistem Pembayaran Nasional di Era Digital BANK INDONESIA*.

Johan. (2022). Inovasi dalam Teknologi Keuangan: Mengubah Praktik Perbankan dan Investasi Tradisional. *Curreney: Jurnal Ekonomi Dan Perbankan Syariah*, *01*(1), 296–314.

Lubis, R. H., & Hasniati. (2023). Determinants Transact Usin BI Fast Transfer Service On BSI Mobile. *Jurnal Ekonomi Dan Bisnis*, *8*(21), 285–304.

Marginingsih, R. (2023). BI-FAST Sebagai Sistem Pembayaran Dalam Mendukung Akselerasi Digitalisasi Ekonomi dan Keuangan Nasional. *Moneter: Jurnal Akuntansi Dan Keuangan*, *10*(1), 18–26.

Maulidah, A. R., Astuti, R. P., Nisa, K., Erlangga, W., & Hambarwati, E. (2024). Perkembangan Sistem Pembayaran Digital : Pada Era Revolusi Industri. *Jurnal Ekonomi Dan Bisnis Digital*, *01*(04), 798–803.

Ningsih, L. W., Astuti, R. P., Holisah, S. N., Amin, M. S., & Yunus, M. (2025). Perkembangan Sistem Pembayaran di Indonesia : Kebijakan dan Peran Bank Indonesia. *Jurnal Ekonomi Dan Bisnis Digital*, *01*(04), 697–702.

Prihasto, A. D., Gunawan, B., & Anggraini, D. (2023). Analisis Kepuasan Pengguna

Menggunakan Metode PIECES Terhadap Layanan BI-FAST. *Journal Ilmiah Komputasi*, *22*(September), 429–440.

Putra, G. P., & Julianto, I. P. (2022). Pengaruh gaya hidup, promosi dan keamanan transaksi terhadap keputusan penggunaan dompet digital pada generasi z di kabupaten tabanan. *VJRA*, *10*(1), 27–35.

Simanjuntak, R. B., Sinaga, H. A., M.Sinaga, L. I., Sihombing, R. O., & Siallagan, H. (2025). karena itu , penelitian ini akan membandingkan secara empiris antara bank yang menggunakan kliring Dalam era modernisasi sistem tradisional dan yang perbankan dan digitalisasi layanan memanfaatkan RTGS / BI-FAST , untuk menilai perbedaan kinerja pembayara. *Ikraith Ekonomika*, *8*(3), 1550–1558.

Sugiyono. (2023). *Metode Penelitian Kuantitatif, Kualitatif dan R & D* (Cetakan Ke). Penerbit Alfabeta.

Syahrani, S., & Fasa, M. I. (2024). Pengaruh transaksi digital banking terhadap fee based income di sektor perbankan. *Jurnal Ilmiah Ekonomi, Manajemen Dan Syariah*, *3*(3), 495–502.