


# The Exploring Blockchain’s Potential to Revolutionize Financial Reporting in Banking: A Case Study of Bank BRI Jayapura

Josua Adrianus Pesiwarissa<sup>1</sup>, Muhammad Ridhwansyah Pasolo<sup>2</sup>, Iriana Auliyah<sup>3</sup>, Fahrudin Pasolo<sup>4</sup>

<sup>1,2,3,4</sup> Faculty of Economic and business, Universitas Yapis Papua

Article Info	ABSTRACT
<p><b>Article history:</b></p> <p>Received Nov, 2025 Revised Nov, 2025 Accepted Nov, 2025</p> <hr/> <p><b>Keywords:</b></p> <p>Blockchain Technology; Financial Reporting; Transparency; Employee Perceptions; Fraud Prevention</p>	<p>This study investigates the role of blockchain technology in enhancing transparency, security, and efficiency in the financial reporting systems of Bank BRI Jayapura. It examines the perceptions of employees, the challenges faced during implementation, and the regulatory barriers hindering full adoption. Findings indicate that blockchain holds significant potential to improve financial reporting accuracy and security by reducing fraud risks and ensuring data immutability. However, the successful adoption of blockchain is contingent upon comprehensive employee training, the readiness of technological infrastructure, and the development of clear and structured regulatory frameworks. The research suggests that management’s role in framing blockchain as an innovative solution rather than a disruptive threat is essential for overcoming resistance. Furthermore, this study emphasizes the need for continued research into regulatory frameworks and the long-term impact of blockchain on banking operations.</p> <p><i>This is an open access article under the <a href="#">CC BY-SA</a> license.</i></p> 

<p><b>Corresponding Author:</b></p> <p>Name: Muhammad Ridhwansyah Pasolo Institution: Universitas Yapis Papua, Jl. Dr. Sam Ratulangi, Dok V Atas, Jayapura Utara, Jayapura, Papua, 99113 Email: <a href="mailto:mrpasolo@gmail.com">mrpasolo@gmail.com</a></p>
--

## 1. INTRODUCTION

The The landscape of financial reporting has undergone a significant transformation with the advent of digital technologies. Among these innovations, blockchain technology has emerged as a powerful tool that promises to reshape the way financial data is recorded, verified, and reported. Financial institutions, especially in the banking sector, are increasingly exploring blockchain for its potential to address critical challenges such as transparency, security, and efficiency in financial reporting. As banking

becomes more data-driven and interconnected, the need for secure and reliable reporting systems has never been greater. Blockchain, with its decentralized, immutable, and cryptographically secure nature, offers a solution that has the potential to improve the integrity of financial reports and reduce risks associated with fraud and data manipulation (Bellucci et al., 2022; Fahdil et al., 2024).

Traditional financial reporting systems, which often rely on centralized databases and manual processes, have long been plagued by inefficiencies. These systems

are vulnerable to human error, fraud, and delays, requiring extensive reconciliation efforts and manual audits. In contrast, blockchain technology facilitates real-time updates and verification of transactions, allowing for automated validation processes that reduce the time and costs associated with traditional audits (Abu Afifa et al., 2023). The technology's immutable ledger provides a permanent and transparent record of all financial transactions, enhancing data accuracy and trustworthiness, and making it easier for stakeholders to access and verify financial information (Bellucci et al., 2022; Fahdil et al., 2024). This capability of blockchain to streamline financial operations presents a significant advantage over traditional systems, where data reconciliation and audit procedures can be cumbersome and prone to error.

The potential benefits of blockchain technology are particularly evident in smaller financial institutions and regional banks, which often face challenges such as limited resources and expertise. Previous studies have shown that these institutions are increasingly turning to blockchain to improve service delivery and reduce operational risks, particularly in processes like peer-to-peer lending and transaction management (Kuruppu et al., 2022). However, the adoption of blockchain in such institutions is not without its challenges. Limited technological infrastructure and a lack of specialized knowledge remain significant barriers that hinder the widespread adoption of blockchain in smaller financial organizations (Abdennadher et al., 2021). In addition to technical and resource constraints, employee and stakeholder perceptions of blockchain adoption play a crucial role in the technology's successful integration into financial reporting systems. The positive reception of blockchain technology is often influenced by the level of understanding of its capabilities and its implications for the roles of employees. Training and education initiatives are essential in shaping these perceptions and fostering an organizational culture that embraces innovation and technological advancements. When

employees understand how blockchain works and the benefits it brings, they are more likely to support its adoption, contributing to smoother implementation processes (Abu Afifa et al., 2023; Alkhwaldi et al., 2024).

Blockchain's potential to improve financial reporting lies primarily in its ability to enhance transparency and security. Traditional financial systems often lack the real-time transparency required to trace transactions and verify data, which leaves these systems vulnerable to fraud and other security risks. With the rise of sophisticated cyber threats targeting financial institutions, the need for more secure financial reporting systems has become urgent. Blockchain addresses these concerns by providing a transparent and immutable ledger that records every transaction, making it difficult for fraudulent activities to go unnoticed (Yu et al., 2018). This feature not only enhances data integrity but also improves stakeholder confidence in the reported financial data, as the system ensures that all information is verifiable and tamper-proof (Centobelli et al., 2021). Despite its potential, the adoption of blockchain in banking is hindered by significant regulatory challenges.

The evolving nature of blockchain technology has created uncertainty within the regulatory landscape. Financial institutions are often hesitant to fully embrace blockchain for fear of non-compliance with existing laws and regulations. The lack of clear and structured regulatory guidelines makes it difficult for banks to integrate blockchain into their financial reporting systems without risking legal repercussions (Kuruppu et al., 2022). Moreover, aligning blockchain adoption with existing financial regulations, which are often designed for traditional systems, adds another layer of complexity. To fully realize the benefits of blockchain in banking, it is essential for regulatory frameworks to evolve and adapt to the unique features of this technology (Alkhwaldi et al., 2024; Cai, 2019).

This study explores the potential of blockchain to address these challenges in the context of Bank BRI Jayapura, a regional bank in Indonesia. By examining the experiences

and perceptions of key stakeholders within the bank, this research aims to provide insights into the practical applications of blockchain in financial reporting, the benefits and challenges of its adoption, and the steps required to integrate blockchain into existing systems. Through this case study, the research contributes to the growing body of knowledge on blockchain's transformative role in banking and financial reporting, particularly in smaller and regional banking institutions that have been less studied in existing literature. The adoption of blockchain technology in financial reporting promises a new era of transparency, security, and efficiency for financial institutions. However, its successful implementation requires not only technological infrastructure but also an understanding of the regulatory environment and the readiness of employees to embrace the changes it brings. This study seeks to address these factors and provide a comprehensive view of blockchain's potential in regional banking.

## 2. LITERATURE REVIEW

### 2.1 *Blockchain Technology*

**Definition and Working Principles.** In simple terms, blockchain is a decentralized data-recording system. It can be imagined as a shared ledger held collectively by many participants, where everyone can view the information but no single party can alter it arbitrarily. The technology functions by organizing data into sequentially ordered blocks that are linked together and protected through cryptographic techniques (Hasan, 2024). Each new transaction or record is added as a block that is mathematically connected to the previous block, forming a chain of data that is extremely difficult to modify or manipulate (Muhammad, 2024).

Security in blockchain is supported by a network of distributed computers, known as nodes. Every node in this network stores an identical copy of the ledger. Consequently, if someone attempts to alter a block, the entire network must validate and approve the

change, which is highly challenging to achieve. This consensus-driven mechanism makes blockchain resistant to interference and various forms of fraud, rendering it highly suitable for financial reporting purposes (Bahanan, 2023).

**Key Components of Blockchain.** Several core elements make blockchain a distinctive and powerful technology:

1. **Decentralization.** No single entity has full control over the data. Instead, control is distributed across the network. This structure reduces dependence on intermediaries, making processes more efficient and potentially more cost-effective (Pratiwi & Ariesta, 2024).
2. **Cryptographic Security.** All data stored on the blockchain is encrypted, ensuring that the information is protected from unauthorized access and tampering.
3. **Consensus Mechanism.** To add new data to the blockchain, the majority of nodes in the network must reach agreement on its validity. This ensures that only legitimate and verified data is recorded in the system.
4. **Immutability.** Once data is recorded on the blockchain, it is nearly impossible to change. This immutability safeguards the integrity and reliability of the information (Judijanto & Loso, 2024).

**Relevance of Blockchain for Financial Reporting.** The relevance of blockchain to financial reporting lies in its ability to create more transparent, reliable, and efficient reporting systems. Processes such as verification and auditing, which traditionally require considerable time and manual effort, can be accelerated because data is readily accessible and already validated on the blockchain (Ricky, 2024). Auditors can test and analyze transaction data directly from the ledger, reducing reliance on physical documents that are vulnerable to loss or manipulation.

Furthermore, blockchain reduces the risk of fraud and errors in financial reporting. Since every entry must be approved by the network before being permanently recorded, intentional manipulation becomes extremely difficult. This characteristic enhances the level of trust among stakeholders, including regulators, investors, and corporate management (Zahara et al., 2024).

## 2.2 *Transparency and Security in Financial Reporting*)

Two central concepts in discussions of blockchain are transparency and security. Transparency refers to the ability of all authorized parties to access and review relevant data, reducing opportunities for concealing or selectively disclosing information. Security, in contrast, concerns the capability of the system to protect data from external threats such as hacking, data breaches, or unauthorized alterations.

Blockchain promotes transparency by allowing all authorized participants in the network to view and trace recorded transactions. Every change or new entry is logged, time-stamped, and linked to previous records, making the audit trail clear and verifiable. At the same time, blockchain's security is derived from its cryptographic foundations and decentralized architecture, which together make data extremely difficult to alter or steal (Waloyandari & Tyas, 2024).

In the context of financial reporting, transparency and security are essential. Traditional systems often rely on centralized servers where financial data is stored in a single location, creating vulnerabilities to cyberattacks or internal misconduct. Blockchain mitigates these risks by distributing data across a network of nodes, thereby eliminating a single point of failure that can be exploited (Bahanan et al., 2024).

The transparency provided by blockchain also helps build trust among

stakeholders. Auditors, regulators, and even consumers can, in principle, verify financial data directly on the blockchain without depending solely on reports prepared by third parties. This fosters a more open and trustworthy environment, which is critical in the financial sector (Judijanto & Loso, 2024).

In summary, blockchain is not merely a novel technology; it is a transformative tool that has the potential to significantly reshape how financial information is managed and reported. Through its features of decentralization, cryptographic security, consensus validation, and immutability, blockchain offers the prospect of more efficient, accurate, and transparent financial reporting than traditional systems

## 3. METHODS

This study employs a qualitative case study approach to explore the role of blockchain technology in enhancing transparency and security in financial reporting at Bank BRI Jayapura Branch. The case study method is particularly suitable for investigating complex, context-dependent phenomena where the researcher seeks an in-depth understanding of real-life processes [10]. As stated by Yin (1989), a case study is ideal when the boundaries between the phenomenon and context are not clearly defined, which aligns with the exploration of blockchain technology implementation in a specific organizational setting. By focusing on a single branch, the research allows for an intensive investigation of blockchain's implications on financial systems within a localized banking environment.

The case study approach in researching financial technology adoption, particularly blockchain, presents several strengths and limitations. A notable strength is its ability to provide in-depth insights into real-world applications and the contextual factors that influence technology adoption.

Case studies can explore specific implementations within various organizations, revealing nuanced interactions

between technology and organizational culture, which quantitative methods may overlook [11], [12].

This depth allows researchers to identify barriers to adoption, such as resistance to change and regulatory hurdles, and to understand how specific organizations navigate these challenges through qualitative analysis [13], [14]. Furthermore, case studies often facilitate the collection of rich qualitative data, such as stakeholder interviews, enhancing the understanding of user perceptions and experiences regarding blockchain technology [15], [16].

However, the case study approach also has limitations. The findings from a limited number of cases may not be generalizable to broader contexts, potentially leading to bias [17], [18]. Additionally, case studies can be time-consuming and resource-intensive, limiting the number of cases that can be analyzed in depth. This could lead to a lack of comparative data across different settings, which impairs the ability to draw broader conclusions about blockchain adoption in the financial sector [19], [20]. Finally, the subjective nature of qualitative analysis in case studies can introduce biases in interpretation, posing challenges for replicability and validation of results [21].

The research was conducted at Bank BRI Jayapura Branch, a regional unit within Indonesia's state-owned banking system. The selection of this branch was strategic, as it operates in a challenging environment that necessitates robust financial reporting mechanisms. Informants were purposefully selected based on their roles, expertise, and experience with financial operations and technology use in the bank. The study involved three key informants: the Branch Manager, the Financial Manager, and a Financial Staff member. These individuals provided diverse perspectives on policy-making, operational execution, and practical application of blockchain technology.

The selection criteria included the informants' tenure, familiarity with blockchain concepts, and their involvement in financial reporting activities. The Branch Manager offered insights into strategic

decisions and institutional readiness, while the Financial Manager provided detailed views on implementation and system integration. The Financial Staff contributed operational-level perspectives on transparency and data handling. This triangulation of roles enriched the dataset and ensured a comprehensive understanding of the implementation dynamics.

Data were gathered using primary and secondary sources. Primary data collection involved semi-structured in-depth interviews with the selected informants. This method allowed flexibility in probing specific themes while ensuring consistency across interviews. The interview sessions were conducted face-to-face over a one-month period and were recorded (with consent) to capture verbatim responses for subsequent analysis. Questions addressed topics such as perceptions of blockchain, implementation strategies, observed benefits, encountered challenges, and integration with existing systems.

Secondary data sources included internal documents such as financial policies, system manuals, and relevant institutional reports. Additionally, academic literature and regulatory documents concerning blockchain adoption in financial reporting were reviewed to contextualize the findings. These sources provided supplementary insights and helped validate information obtained during the interviews.

Thematic analysis was used to process and interpret the qualitative data. Interview transcripts were coded using NVivo 12 software, which facilitated the identification of recurring patterns and the construction of thematic networks. The key themes that emerged included transparency, security, infrastructure readiness, employee competency, regulatory alignment, and cost-benefit considerations. Themes were organized hierarchically to reflect the relationships among different issues raised by the informants.

In qualitative research, thematic analysis is a vital methodology for interpreting complex datasets, particularly in the context of financial technology adoption.

The application of NVivo software effectively facilitates this process. Thematic analysis involves systematically identifying, analyzing, and reporting patterns (themes) within qualitative data, allowing researchers to extract meaningful insights related to the phenomenon under study [22], [23]. Using NVivo, researchers can organize and manage their datasets efficiently. Initially, data—often collected from interviews or focus groups—are transcribed to ensure accuracy, subsequently imported into NVivo for coding [23], [24]. Researchers can derive codes that represent both explicit and implicit themes from the dataset, which may cluster into broader themes embodying the nuances of financial technology adoption [25], [26]. NVivo supports iterative coding processes, allowing researchers to refine themes based on ongoing analysis and emerging patterns, thereby deepening insights into stakeholder experiences, attitudes, and barriers related to financial technologies [27], [28].

Moreover, thematic analysis conducted via NVivo is advantageous for maintaining transparency and traceability within the analytical process. Researchers can document steps taken during analyses, enhancing credibility and replicability [23], [26]. Furthermore, NVivo's capabilities for visual representation—such as thematic maps and coding frameworks—aid in clarifying complex relationships and facilitating better understanding among stakeholders [29].

#### 4. RESULTS AND DISCUSSION

The data presented in this study were collected through in-depth interviews with three informants from Bank BRI Jayapura Branch, representing different functional roles in the institution. These included the Branch Manager, who had served for 13 years, the Financial Manager with 9 years of experience, and a Financial Staff member with 5 years of tenure. These informants were selected based on their involvement in financial operations and their awareness of technology-related developments within the bank.

To systematically analyze the qualitative data obtained, the research

employed NVivo 12 software, which facilitated the thematic coding of interview transcripts. A preliminary analysis was conducted to identify the most frequently occurring keywords in the responses. The word frequency analysis highlighted recurring terms such as "blockchain," "transparency," "security," "infrastructure," and "training," indicating central themes relevant to the study's focus.

Figure 1, the word cloud generated by NVivo, visually illustrates these dominant terms, reinforcing their significance in the interview narratives.

However, the hierarchical structure map was complemented by a network of thematic connections (Figure.2), based on NVivo's coding framework. This network diagram reflects the associations and overlapping concepts found across the interviews. Each node in the diagram represents a key theme or concept, with lines indicating their connections to informants and subthemes. The nodes illustrate the diversity of perspectives shared by the informants, as well as the central role of blockchain in enhancing transparency, security, and trust within financial reporting systems. From this analysis, the following primary themes emerged:

1. **Benefits of Blockchain** – covering issues related to transparency, fraud prevention, traceability, and data immutability.
2. **Feasibility and Implementation Steps** – including infrastructure readiness, training needs, and phased implementation plans.
3. **Implementation Challenges** – highlighting limitations in current systems, regulatory gaps, and workforce adaptation.
4. **System Integration and Regulatory Concerns** – discussing compatibility with legacy systems and the need for clear policies.
5. **Trust, Perception, and Cost-Benefit Analysis** – examining user trust, cost implications, and overall efficiency outcomes.

Blockchain technology offers significant benefits in enhancing transparency and fraud detection in financial reporting. One of its primary strengths is its immutability feature, which ensures that once data is recorded on a blockchain, it cannot be altered or deleted. This immutability minimizes the risk of data manipulation and fraud. As Informant 1 highlighted:

*"Blockchain memberikan transparansi yang lebih tinggi karena setiap transaksi dicatat dalam 'block' yang dapat diakses oleh semua pihak yang berwenang, tanpa bisa diubah." ("Blockchain provides greater transparency because every transaction is recorded in blocks that can be accessed by authorized parties without being altered.")*

This immutability feature ensures the integrity of financial data, making it much harder for fraudulent activities to take place. These findings align with the literature, which reports a significant reduction in fraudulent activities among organizations using blockchain in their financial reporting processes [2], [30].

The transparency offered by blockchain further contributes to its utility in fraud detection. Informant 2 emphasized:

*"Blockchain dapat membantu mencegah penipuan dengan memastikan bahwa setiap transaksi tercatat secara transparan dan tidak dapat diubah. Setiap kali data diperbarui atau transaksi terjadi, informasi tersebut akan tercatat dalam ledger yang dapat diverifikasi oleh pihak yang berwenang." ("Blockchain helps prevent fraud by ensuring that every transaction is recorded transparently and cannot be altered. Every time data is updated or a transaction occurs, the information is recorded in the ledger, which can be verified by authorized parties.")*

This transparency enables all stakeholders to access and verify the information independently, providing an efficient way to detect inconsistencies and fraudulent activities in real-time.

In addition to transparency, blockchain's ability to facilitate real-time transaction tracking is a critical feature. Informant 3 noted:

*"Justru lebih mudah, contoh dalam hal memverifikasi dan melacak data. Dengan sistem*

*yang lebih transparan dan terdesentralisasi, sa tidak perlu lagi menghabiskan banyak waktu untuk memeriksa data ini de akurat ka tidak." ("It's much easier, for example, to verify and track data. With a more transparent and decentralized system, I don't have to spend much time checking whether the data is accurate or not.")*

This ability to monitor transactions as they happen is crucial for ensuring timely updates to financial records, enhancing decision-making processes, and improving overall efficiency [31]. The decentralized nature of blockchain eliminates the delays associated with traditional record-keeping systems, ensuring that all stakeholders have simultaneous access to up-to-date information. In addition to enhancing transparency, blockchain's real-time tracking capability ensures that financial institutions can maintain accurate and trustworthy records. Informant 1 further mentioned:

*"Manfaat yang di berikan, yg utama transparansinya lebih tinggi karna transaksi di catat di setiap block block dan dapat di lihat dan di akses oleh yg berwenang sj tanpa bisa di ubah. Ini sangat penting dalam pelaporan keuangan dengan ini dapat ee meminimalkan potensi manipulasi data dan gampang melacak setiap transaksi." ("The main benefit it provides is greater transparency because every transaction is recorded in each block and can be seen and accessed by authorized parties without being altered. This is crucial in financial reporting as it minimizes potential data manipulation and makes it easy to track every transaction.")*

This ability to track data more easily and with higher accuracy significantly contributes to more reliable financial reporting, which is key to improving transparency and reducing fraud.

The implementation of blockchain also helps to significantly reduce fraud risks. Informant 1 stated:

*"Blockchain sangat membantu mengurangi risiko penipuan karena sifatnya itu transparan dan tidak dapat diubah. Setiap transaksi yang di catat dapat diverifikasi dan di lacak dengan mudah, sehingga dapat mencegah adanya transaksi yang tidak sah atau adanya manipulasi data." ("Blockchain is very helpful in reducing the risk of fraud because of its transparency and immutability. Every*

transaction recorded can be verified and tracked easily, so it prevents unauthorized transactions or data manipulation.”)

Similarly, Informant 2 mentioned:

*"Blockchain dapat membantu mencegah penipuan dengan memastikan bahwa setiap transaksi tercatat secara transparan dan tidak dapat diubah. Setiap kali data diperbarui atau transaksi terjadi, informasi tersebut akan tercatat dalam ledger yang dapat diverifikasi oleh pihak yang berwenang. Hal ini membuatnya sangat sulit untuk melakukan manipulasi atau pencurian data tanpa terdeteksi."* ("Blockchain helps prevent fraud by ensuring that every transaction is recorded transparently and cannot be altered. Every time data is updated or a transaction occurs, the information is recorded in the ledger, which can be verified by authorized parties. This makes it very difficult to manipulate or steal data without detection.")

Furthermore, blockchain improves network security, as highlighted by Informant 1:

*“Teknologi informasi mampu mendukung penerapan blockchain. Termaksud peningkatan kaasitas server, peningkatan kemanan jaringan dan pelatihan bagi karyawan agar siap dengan perubahan teknologi ini.”*  
*(“Information technology supports the implementation of blockchain, including increasing server capacity, improving network security, and training employees to be ready for technological changes.”)*

Blockchain's secure and decentralized design reduces the risk of data

breaches, making it more difficult for malicious actors to manipulate or steal sensitive financial data. This integration of blockchain technology leads not only to improved transparency but also to more effective fraud detection mechanisms within financial systems. The findings in this study align with previous research that asserts blockchain's substantial benefits in financial reporting, particularly in improving transparency, accuracy, and efficiency.

Blockchain allows for secure, decentralized transaction recording, which reduces the risk of fraud and errors in financial reports [32], [33], [34]. In the context of Islamic finance, blockchain also helps ensure compliance with Sharia principles, providing greater trust to stakeholders [35], [36]. Furthermore, blockchain's adoption has been shown to reduce administrative costs and speed up transaction processes, improving the timeliness of financial reporting [33], [37]. Additionally, blockchain enables better access to financial data, facilitating auditing and oversight ([34], [37]). Therefore, blockchain adoption can significantly contribute to the quality and integrity of financial reporting in various sectors, including small and medium-sized enterprises (SMEs) and government institutions [34], [38], as well as at Bank BRI Jayapura Branch.

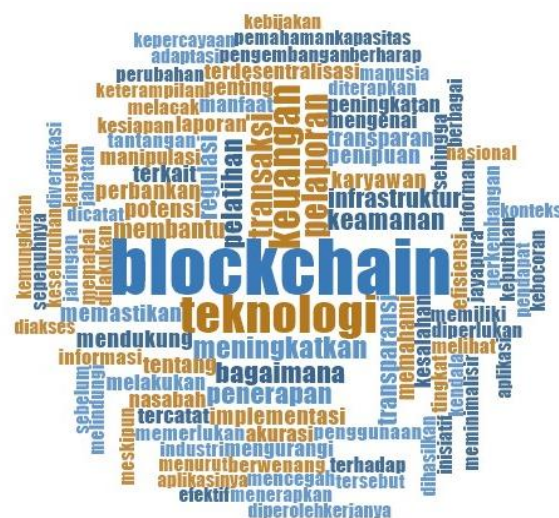


Figure 1. Word Cloud



Figure 2. network of thematic connections

The implementation of blockchain technology in the banking sector faces several significant challenges related to technical barriers, infrastructure, and regulatory concerns. One of the most critical challenges mentioned by Informant 1 is the readiness of the technological infrastructure to support blockchain's demands. Informant 1 explained:

*"Tantangan yang di hadapi itu kesiapan infrastruktur yang memadai, karna blockchain membutuhkan sistem yang kuat."*

*("The challenge faced is the readiness of adequate infrastructure, as blockchain requires a robust system.")*

Blockchain networks, especially when dealing with large volumes of transactions, require advanced systems that can handle the increased load, highlighting the importance of upgrading and modernizing the infrastructure before blockchain can be fully implemented in banking processes.

Moreover, Informant 2 elaborated on the need for greater technological sophistication:

*"Blockchain memerlukan sistem yang lebih canggih dan kapasitas server yang cukup besar untuk menangani volume transaksi yang tinggi." ("Blockchain requires a more sophisticated system and sufficient server capacity to handle high transaction volumes.")*

Blockchain's potential to improve financial reporting, accuracy, and transparency, as described by Informant 1, adds value to the process but also comes with its own challenges. Informant 1 stated:

*"Sa melihat teknologi blockchain ini memiliki potensi yang cukup besar dalam meningkatkan efisiensi dan akurasi laporan keuangan di BRI, dengan sistemnya yang tersentralisasi dan itu mustahil untuk diubah, dan teknologi blockchain dapat meminimalisir kesalahan, dan memastikan laporan keuangan yang dihasilkan itu lebih transparan, dan akurat." ("I see that blockchain technology has significant*

*potential to improve the efficiency and accuracy of financial reporting at BRI, with its centralized system that is impossible to alter, and blockchain can minimize errors and ensure that the financial reports generated are more transparent and accurate.”)*

Despite these benefits, challenges related to the complexity of blockchain systems and their integration into existing infrastructures remain a major hurdle. Moreover, the decentralized and immutable nature of blockchain is a double-edged sword, as it necessitates the creation of secure systems to prevent unauthorized modifications, a challenge highlighted by Informant 2:

*“Setiap transaksi atau pembaruan data dicatat dalam blok-blok yang tidak dapat diubah, sehingga hampir tidak mungkin bagi pihak yang tidak berwenang untuk mengakses atau memodifikasi informasi tersebut. Keamanan ini penting untuk melindungi data.” (“Every transaction or data update is recorded in blocks that cannot be altered, making it almost impossible for unauthorized parties to access or modify the information. This security is crucial for protecting data.”)*

The lack of specialized expertise is another significant challenge highlighted by both Informants 1 and 2. Informant 1 emphasized:

*“Blockchain memerlukan sistem yang kuat dan sumber daya manusia yang terlatih untuk mengelola dan mengoperasikannya dengan baik.” (“Blockchain requires a robust system and skilled human resources to manage and operate it effectively.”)*

Similarly, Informant 2 stated:

*“Pengembangan aplikasi blockchain juga membutuhkan sumber daya manusia yang terampil.” (“The development of blockchain applications also requires skilled human resources.”)*

This shortage of skilled professionals is a challenge that many financial institutions continue to face, as blockchain technology demands a level of expertise that is not yet widespread across the industry [2]. Regulatory frameworks also play a pivotal role in the adoption of blockchain in banking. As highlighted by Informant 2, regulatory

concerns can delay the implementation of blockchain:

*“Meskipun biaya awal implementasi blockchain bisa cukup tinggi, saya percaya manfaat jangka panjangnya jauh lebih besar. Dengan peningkatan efisiensi, keamanan data yang lebih baik, dan pengurangan risiko penipuan, biaya implementasi dapat terbayar dengan peningkatan kualitas pelaporan dan pengurangan kerugian finansial akibat kesalahan atau penipuan.”*

*(“Although the initial cost of implementing blockchain can be quite high, I believe the long-term benefits are much greater. With increased efficiency, better data security, and reduced fraud risk, the implementation cost can be offset by improved reporting quality and reduced financial losses due to errors or fraud.”)*

Moreover, the complexity of adhering to both existing financial regulations and innovative blockchain solutions often leads to delays in implementation [7]. Smith & Castonguay (2019) highlight that inconsistent regulatory framework across different jurisdictions can slow down the broader adoption of blockchain in banking. Without a cohesive regulatory environment, banks may struggle to integrate blockchain into their existing processes effectively, leading to slow or inconsistent adoption across regions.

Integrating blockchain technology with existing banking systems requires a complex process of data migration and system adaptation. Informant 2 highlighted this challenge, stating:

*“Integrasi blockchain dengan sistem yang ada akan memerlukan proses migrasi data dan adaptasi antar sistem.” (“Integrating blockchain with existing systems will require data migration and adaptation between systems.”)*

This process of migration becomes a significant hurdle as existing banking systems are often not designed to handle decentralized and immutable data structures that are characteristic of blockchain technology. Therefore, a careful and structured approach to data migration is necessary to ensure a smooth transition without disrupting ongoing operations. In addition to the technical adjustments required, the readiness of the workforce is crucial for the successful

implementation of blockchain. As Informant 2 emphasized:

*"Pelatihan bagi karyawan sangat penting. Kami perlu memastikan bahwa tim keuangan, IT, dan operasional memahami konsep dasar blockchain, serta cara teknologi ini dapat meningkatkan pelaporan dan keamanan. Pelatihan tersebut juga harus mencakup keterampilan teknis seperti cara menggunakan platform blockchain, serta pemahaman tentang regulasi dan kebijakan yang berkaitan dengan penggunaannya."* ("Employee training is very important. We need to ensure that the finance, IT, and operations teams understand the basic concepts of blockchain and how this technology can improve reporting and security. The training should also cover technical skills, such as how to use the blockchain platform, as well as an understanding of the regulations and policies related to its use.")

This statement underscores the importance of comprehensive training programs that not only cover technical aspects but also ensure that employees are well-versed in the regulatory and operational changes that blockchain brings. Such training is essential for enabling staff to effectively manage and utilize the new system in their daily tasks, particularly in sectors like finance and operations. However, one of the main challenges highlighted by both informants is the underdeveloped regulatory environment. Informant 1 addressed this issue, stating:

*"Regulasi terkait blockchain di sektor perbankan masih dalam tahap perkembangan. Sambil kami menerapkan teknologi ini sambil menunggu regulasi yang sedang disiapkan agar peraturan yang jelas dan mendukung akan sangat membantu dalam penerapan teknologi ini di industri perbankan. Oleh karena itu, kami berharap ada regulasi cepat diselesaikan agar lebih spesifik dan terstruktur yang bisa memandu penggunaan blockchain secara efektif dan aman."* ("The regulations related to blockchain in the banking sector are still in development. While we implement this technology, we are waiting for regulations that are being prepared, as clear and supportive regulations will be very helpful in the application of this technology in the banking industry. Therefore, we hope the regulations will be finalized quickly to become more specific and

*structured, guiding the effective and secure use of blockchain."*)

This sentiment underscores a major barrier to blockchain adoption—the uncertainty surrounding regulations. Without clear and structured regulations, the adoption of blockchain becomes more difficult, as financial institutions must be cautious in integrating a new technology that may not be fully regulated by existing laws. Informant 1's statement aligns with findings in the literature, which highlight how blockchain regulation development in the banking sector varies significantly across countries. In some countries, such as the UAE, substantial progress has been made in creating regulatory frameworks that encourage blockchain adoption [5].

However, in many other countries, the lack of clear regulations creates significant barriers. The clarity of these frameworks profoundly impacts blockchain's potential, particularly in terms of enhancing the security and transparency of blockchain-based financial reporting.

Integrating blockchain technology with existing banking systems requires a complex process of data migration and system adaptation. Informant 2 highlighted this challenge, stating:

*"Integrasi blockchain dengan sistem yang ada akan memerlukan proses migrasi data dan adaptasi antar sistem."* ("Integrating blockchain with existing systems will require data migration and adaptation between systems.")

This process of migration becomes a significant hurdle as existing banking systems are often not designed to handle decentralized and immutable data structures that are characteristic of blockchain technology. Therefore, a careful and structured approach to data migration is necessary to ensure a smooth transition without disrupting ongoing operations. In addition to the technical adjustments required, the readiness of the workforce is crucial for the successful implementation of blockchain. As Informant 2 emphasized:

*"Pelatihan bagi karyawan sangat penting. Kami perlu memastikan bahwa tim keuangan, IT, dan operasional memahami konsep*

dasar blockchain, serta cara teknologi ini dapat meningkatkan pelaporan dan keamanan. Pelatihan tersebut juga harus mencakup keterampilan teknis seperti cara menggunakan platform blockchain, serta pemahaman tentang regulasi dan kebijakan yang berkaitan dengan penggunaannya." ("Employee training is very important. We need to ensure that the finance, IT, and operations teams understand the basic concepts of blockchain and how this technology can improve reporting and security. The training should also cover technical skills, such as how to use the blockchain platform, as well as an understanding of the regulations and policies related to its use.")

This statement underscores the importance of comprehensive training programs that not only cover technical aspects but also ensure that employees are well-versed in the regulatory and operational changes that blockchain brings. Such training is essential for enabling staff to effectively manage and utilize the new system in their daily tasks, particularly in sectors like finance and operations. However, one of the main challenges highlighted by both informants is the underdeveloped regulatory environment. Informant 1 addressed this issue, stating:

"Regulasi terkait blockchain di sektor perbankan masih dalam tahap perkembangan. Sambil kami menerapkan teknologi ini sambil menunggu regulasi yang sedang disiapkan agar peraturan yang jelas dan mendukung akan sangat membantu dalam penerapan teknologi ini di industri perbankan. Oleh karena itu, kami berharap ada regulasi cepat diselesaikan agar lebih spesifik dan terstruktur yang bisa memandu penggunaan blockchain secara efektif dan aman." ("The regulations related to blockchain in the banking sector are still in development. While we implement this technology, we are waiting for regulations that are being prepared, as clear and supportive regulations will be very helpful in the application of this technology in the banking industry. Therefore, we hope the regulations will be finalized quickly to become more specific and structured, guiding the effective and secure use of blockchain.")

This sentiment underscores a major barrier to blockchain adoption—the uncertainty surrounding regulations. Without clear and structured regulations, the adoption

of blockchain becomes more difficult, as financial institutions must be cautious in integrating a new technology that may not be fully regulated by existing laws. Informant 1's statement aligns with findings in the literature, which highlight how blockchain regulation development in the banking sector varies significantly across countries. In some countries, such as the UAE, substantial progress has been made in creating regulatory frameworks that encourage blockchain adoption [5].

However, in many other countries, the lack of clear regulations creates significant barriers. The clarity of these frameworks profoundly impacts blockchain's potential, particularly in terms of enhancing the security and transparency of blockchain-based financial reporting. As blockchain continues to evolve, the need for a cohesive and supportive regulatory environment becomes increasingly essential to drive innovation and adoption in the financial sector.

The employees at Bank BRI show a generally positive openness toward the potential use of blockchain technology. Informant 1 stated:

"Secara umum karyawan BRI terbuka terhadap potensi penggunaan blockchain. Namun ada kebutuhan untuk pendidikan dan pelatihan lebih lanjut mengenai teknologi ini agar mereka memahami manfaat dan cara kerjanya, serta bagaimana hal ini dapat meningkatkan kinerja bank secara keseluruhan." ("In general, BRI employees are open to the potential use of blockchain. However, there is a need for further education and training on this technology to help them understand its benefits and how it works, as well as how it can improve the overall performance of the bank.")

This sentiment reflects the positive attitude among employees towards blockchain adoption. However, it also highlights the need for effective education and training to enhance understanding and to align employees with the broader strategic goals of the bank.

Informant 3 further highlighted the importance of training, stressing that blockchain is relatively new to many in the banking industry and that sufficient training

would help employees understand how it works:

*"Sa setuju bahwa pelatihan dan pengembangan keterampilan mengenai blockchain sangat penting. Teknologi ini kan relatif baru bagi banyak orang di perbankan, dan pelatihan yang memadai akan membantu karyawan memahami cara kerja blockchain, serta bagaimana bisa mempraktekannya dalam pekerjaan sehari-hari."*  
 ("I agree that training and skill development regarding blockchain is very important. This technology is relatively new for many in banking, and adequate training will help employees understand how blockchain works, as well as how to practice it in their daily work.")

Such training programs not only develop the technical skills needed to operate blockchain systems effectively but also help employees grasp the broader benefits of blockchain in terms of security, efficiency, and accuracy. One of the key reasons blockchain is seen as beneficial is its potential to enhance security and reduce fraud within the banking system. Informant 1 discussed the security benefits of blockchain, saying:

*"Sa melihat teknologi blockchain ini memiliki potensi yang cukup besar dalam meningkatkan efisiensi dan akurasi laporan keuangan di BRI, dengan sistemnya yang tersentralisasi dan itu mustahil untuk diubah."*  
 ("I see that blockchain technology has significant potential to improve the efficiency and accuracy of financial reporting at BRI, with its centralized system that is impossible to alter.")

Blockchain's decentralized and immutable characteristics contribute to its strength in preventing data manipulation and ensuring data integrity, two crucial factors in maintaining trust in financial systems.

Similarly, Informant 2 explained the role blockchain plays in securing financial data:

*"Blockchain dapat melindungi keamanan data keuangan dengan cara menyimpan data dalam bentuk yang terdesentralisasi dan terenkripsi. Dan setiap transaksi atau pembaruan data dicatat dalam blok-blok yang tidak dapat diubah, sehingga hampir tidak mungkin bagi pihak yang tidak berwenang untuk mengakses atau memodifikasi informasi tersebut."*

*("Blockchain can protect the security of financial data by storing it in a decentralized and encrypted*

*form. Every transaction or data update is recorded in blocks that cannot be altered, making it almost impossible for unauthorized parties to access or modify the information.")*

This transparency and immutability of blockchain ensure that financial transactions are secure and verifiable, significantly reducing the likelihood of fraud. Informant 1 also emphasized how blockchain helps reduce fraud risks by maintaining transparency and preventing unauthorized changes:

*"Blockchain sangat membantu mengurangi risiko penipuan karena sifatnya itu transparan dan tidak dapat diubah. Setiap transaksi yang dicatat dapat diverifikasi dan dilacak dengan mudah, sehingga dapat mencegah adanya transaksi yang tidak sah atau adanya manipulasi data."*  
 ("Blockchain greatly helps reduce the risk of fraud because of its transparent and immutable nature. Every transaction that is recorded can be easily verified and traced, preventing unauthorized transactions or data manipulation.")

## 5. CONCLUSION

The This study explores the potential of blockchain technology to enhance the transparency, security, and efficiency of financial reporting systems at Bank BRI Jayapura. The research highlights several key findings related to blockchain's benefits, implementation steps, challenges, regulatory concerns, and the perception of employees toward its adoption.

The research reveals that blockchain holds significant promise for improving the accuracy, efficiency, and security of financial reporting systems. Its decentralized and immutable nature offers a robust solution to prevent fraud and data manipulation. Employees at Bank BRI are generally open to the adoption of blockchain technology, provided they receive sufficient education and training on its functionality, regulatory requirements, and practical applications. The study also identified that while blockchain's potential is recognized, the readiness of the technological infrastructure and the regulatory environment remains a major challenge. The lack of clear and structured

regulations complicates the integration of blockchain, leading to uncertainty and hesitation in full-scale adoption. Additionally, the research indicates that comprehensive training and support from management play a crucial role in easing the transition to blockchain systems. Positive management framing can reduce resistance and increase employees' willingness to embrace new technologies. It is also clear that further research is needed to explore the specific role of management in facilitating blockchain adoption, as well as to investigate the long-term impacts of blockchain on banking operations and customer trust.

For future research, it is recommended to examine the broader adoption of blockchain in regional banking sectors, explore regulatory development, and conduct longitudinal studies on the actual impact of blockchain in improving financial reporting and reducing fraud. Moreover, deeper investigation into how blockchain can be integrated into existing banking infrastructure in developing countries is necessary, considering the varied levels of technological readiness.

## ACKNOWLEDGEMENTS

Not Applicable.

## REFERENCES

- [1] M. Bellucci, D. C. Bianchi, and G. Manetti, 'Blockchain in Accounting Practice and Research: Systematic Literature Review', *Meditari Accountancy Research*, vol. 30, no. 7, pp. 121–146, 2022, doi: 10.1108/medar-10-2021-1477.
- [2] H. N. Fahdil, H. M. Hassan, A. Subhe, and A. T. Hawas, 'Blockchain Technology in Accounting Transforming Financial Reporting and Auditing', *Journal of Ecohumanism*, vol. 3, no. 5, pp. 216–233, 2024, doi: 10.62754/joe.v3i5.3903.
- [3] M. Abu Afifa, I. Saleh, and H. Vo Van, 'Accounting information quality in the digital era – a perspective from ERP system adoption?', *Global Knowledge, Memory and Communication*, 2023, doi: 10.1108/GKMC-03-2023-0101.
- [4] S. Kuruppu, D. M. R. Dissanayake, and C. d. Villiers, 'How Can NGO Accountability Practices Be Improved With Technologies Such as Blockchain and Triple-Entry Accounting?', *Accounting Auditing & Accountability Journal*, vol. 35, no. 7, pp. 1714–1742, 2022, doi: 10.1108/aaaj-10-2020-4972.
- [5] S. Abdennadher, R. Grassa, H. Abdulla, and A. Alfalasi, 'The Effects of Blockchain Technology on the Accounting and Assurance Profession in the UAE: An Exploratory Study', *Journal of Financial Reporting and Accounting*, vol. 20, no. 1, pp. 53–71, 2021, doi: 10.1108/jfra-05-2020-0151.
- [6] A. F. Alkhwaldi, M. Alidarous, and E. E. Alharasis, 'Antecedents and Outcomes Of innovative Blockchain Usage In accounting and Auditing Profession: An Extended UTAUT Model', *Journal of Organizational Change Management*, vol. 37, no. 5, pp. 1102–1132, 2024, doi: 10.1108/jocm-03-2023-0070.
- [7] T. Yu, Z. Lin, and Q. Tang, 'Blockchain: The Introduction and Its Application in Financial Accounting', *Journal of Corporate Accounting & Finance*, vol. 29, no. 4, pp. 37–47, 2018, doi: 10.1002/jcaf.22365.
- [8] P. Centobelli, R. Cerchione, P. D. Vecchio, E. Oropallo, and G. Secundo, 'Blockchain Technology Design in Accounting: Game Changer to Tackle Fraud or Technological Fairy Tale?', *Accounting Auditing & Accountability Journal*, vol. 35, no. 7, pp. 1566–1597, 2021, doi: 10.1108/aaaj-10-2020-4994.
- [9] C. W. Cai, 'Triple-entry Accounting With Blockchain: How Far Have We Come?', *Accounting and Finance*, vol. 61, no. 1, pp. 71–93, 2019, doi: 10.1111/acfi.12556.
- [10] A. T. Krismantara and A. Kamayanti, 'Testing Factors is Used to See the Effect on the Fraudulent Financial Reporting in the perspective Fraud Pentagon Theory', *Proceedings of 2nd Annual Management, Business and Economic Conference (AMBEC 2020)*, vol. 183, p. null, 2021, doi: 10.2991/aebmr.k.210717.037.
- [11] A. Faccia and P. Petratos, 'Blockchain, Enterprise Resource Planning (ERP) and Accounting Information Systems (AIS): Research on E-Procurement and System Integration', *Applied Sciences*, vol. 11, no. 15, p. 6792, 2021, doi: 10.3390/app11156792.
- [12] K. Chavali, A. K. V Veetil, S. Mavuri, C. K. Tiwari, and A. Pal, 'Investigation and Modelling of Barriers in Adoption of Blockchain Technology for Accounting and Finance', *Journal of Global Information Management*, vol. 32, no. 1, pp. 1–23, 2024, doi: 10.4018/jgim.353960.
- [13] O. Prokopenko, A. Koldovskiy, M. V. Khalilova, A. Orazbayeva, and J. Machado, 'Development of Blockchain Technology in Financial Accounting', *Computation*, vol. 12, no. 12, p. 250, 2024, doi: 10.3390/computation12120250.
- [14] A. Rijanto, 'Blockchain Technology Roles to Overcome Accounting, Accountability and Assurance Barriers in Supply Chain Finance', *Asian Review of Accounting*, vol. 32, no. 5, pp. 728–758, 2024, doi: 10.1108/ara-03-2023-0090.
- [15] M. Al-Okaily, D. Almajali, A. Al-Okaily, and T. Majali, 'Blockchain Technology and Its Applications in Digital Accounting Systems: Insights From Jordanian Context', *Journal of Financial Reporting and Accounting*, 2023, doi: 10.1108/jfra-05-2023-0277.
- [16] H. M. Al-Hattami, 'What Factors Influence the Intention to Adopt Blockchain Technology in Accounting Education?', *Humanit Soc Sci Commun*, vol. 11, no. 1, 2024, doi: 10.1057/s41599-024-03315-8.

- [17] A. Sharma, S. S. Bhanawat, and R. B. Sharma, 'Adoption of Blockchain Technology Based Accounting Platform', *Academic Journal of Interdisciplinary Studies*, vol. 11, no. 2, p. 155, 2022, doi: 10.36941/ajis-2022-0042.
- [18] Z. Tian, L. Qiu, and L. Wang, 'Drivers and Influencers of Blockchain and Cloud-Based Business Sustainability Accounting in China: Enhancing Practices and Promoting Adoption', *PLoS One*, vol. 19, no. 1, p. e0295802, 2024, doi: 10.1371/journal.pone.0295802.
- [19] M. C. Dyball and R. Seethamraju, 'Client Use of Blockchain Technology: Exploring Its (Potential) Impact on Financial Statement Audits of Australian Accounting Firms', *Accounting Auditing & Accountability Journal*, vol. 35, no. 7, pp. 1656–1684, 2021, doi: 10.1108/aaaj-07-2020-4681.
- [20] S. Sheela, A. A. Alsmady, K. Tanaraj, and I. Izani, 'Navigating the Future: Blockchain's Impact on Accounting and Auditing Practices', *Sustainability*, vol. 15, no. 24, p. 16887, 2023, doi: 10.3390/su152416887.
- [21] S. K. Selimoğlu, G. Yeşilçelebi, and M. Altunel, 'The Impact of Blockchain Technology on Accounting, Auditing, and Assurance Practices', pp. 255–276, 2023, doi: 10.4018/978-1-6684-4153-4.ch011.
- [22] M. Vaismoradi, H. Turunen, and T. Bondas, 'Content Analysis and Thematic Analysis: Implications for Conducting a Qualitative Descriptive Study', *Nurs Health Sci*, vol. 15, no. 3, pp. 398–405, 2013, doi: 10.1111/nhs.12048.
- [23] M. R. Matumba and M. Rajkoomar, 'Academic Librarians' Perceptions of Mobile Technology's Usefulness in Library Service Delivery at Universities of Technology in South Africa', *Digit Libr Perspect*, vol. 40, no. 1, pp. 131–147, 2024, doi: 10.1108/dlp-08-2023-0072.
- [24] A. Devine, C. Vaughan, and A. Kavanagh, 'If I Had Stable Housing I Would Be a Bit More Receptive to Having a Job. Factors Influencing the Effectiveness of Disability Employment Services Reform', *Work*, vol. 65, no. 4, pp. 775–787, 2020, doi: 10.3233/wor-203130.
- [25] S. O. Atiku, K. A. Itembu-Naunyango, and O. M. Oladejo, 'Inclusive Leadership and Employee Engagement as Critical Drivers of Sustainability in Telecommunication Companies', *Adm Sci*, vol. 14, no. 6, p. 126, 2024, doi: 10.3390/admsci14060126.
- [26] S. Z. Nayem, Md. S. Hossain, and M. U. S. Khatun, 'Exploring the Dynamics of Technology Transfer and Automation in Universities: A Case Study on Fostering Entrepreneurship and Startup Ecosystems at Bangladesh Open University', 2024, doi: 10.21203/rs.3.rs-3884840/v1.
- [27] J. E. Blanchette *et al.*, 'Empowering Emerging Adults With Type 1 Diabetes: Crafting a Financial and Health Insurance Toolkit Through Community-Based Participatory Action Research', 2024, doi: 10.21203/rs.3.rs-4018628/v1.
- [28] R. Colston, P. Millier, M. Katsikitis, and J. J. Keech, 'What Is the State of Play in Adulthood?', 2024, doi: 10.21203/rs.3.rs-4903570/v1.
- [29] R. M. Ayyub, S. Naeem, S. Ahmed, and C. Jayawardhena, 'Investigating Consumer Alienation Toward Broiler Leading to Food Insecurity', *British Food Journal*, vol. 123, no. 5, pp. 1776–1792, 2020, doi: 10.1108/bfj-07-2020-0616.
- [30] N. Dashkevich, S. Counsell, and G. Destefanis, 'Blockchain Financial Statements: Innovating Financial Reporting, Accounting, and Liquidity Management', *Future Internet*, vol. 16, no. 7, p. 244, 2024, doi: 10.3390/fi16070244.
- [31] J. Dai and M. A. Vasarhelyi, 'Toward Blockchain-Based Accounting and Assurance', *Journal of Information Systems*, vol. 31, no. 3, pp. 5–21, 2017, doi: 10.2308/isis-51804.
- [32] M. A. Afif, V. Verry, and M. N. Dasaprawira, 'Strategi Pengembangan Technopreneurship Berbasis Teknologi Blockchain Dalam Industri Keuangan', *JUSIM (Jurnal Sistem Informasi Musirawas)*, vol. 9, no. 1, pp. 15–22, Jun. 2024, doi: 10.32767/jusim.v9i1.2249.
- [33] I. Ariati and D. Rudianto, 'Dampak Blockchain dalam Manajemen Keuangan pada Perusahaan Fintech', *Journal of Economics and Business UBS*, vol. 13, no. 2, pp. 566–576, Mar. 2024, doi: 10.52644/joeb.v13i2.1558.
- [34] I. P. Dewi, Patah Herwanto, Haryoso Wicaksono, and Rosida, 'Analisis Faktor-faktor yang Mempengaruhi Penerimaan Teknologi Blockchain dalam Industri Akuntansi', *INFORMASI (Jurnal Informatika dan Sistem Informasi)*, vol. 15, no. 1, pp. 81–90, May 2023, doi: 10.37424/informasi.v15i1.221.
- [35] Djumadi, 'Teknologi Blockchain dalam Perspektif Ekonomi Islam / Keuangan Islam', *Al-Kharaj: Jurnal Ekonomi, Keuangan & Bisnis Syariah*, vol. 6, no. 4, pp. 4335–4351, Feb. 2024, doi: 10.47467/alkharaj.v6i4.887.
- [36] I. K. Najibulloh and L. Rahmalia, 'Penerapan Teknologi Blockchain Dalam Industri Keuangan Syariah : Tantangan Dan Peluang', *J-EBI: Jurnal Ekonomi Bisnis Islam*, vol. 3, no. 01, Mar. 2024, doi: 10.57210/j-ebi.v3i01.295.
- [37] T. Imelda Bandaso, F. Randa, and F. F. Arwinda Mongan, 'Blockchain Technology: Bagaimana Menghadapinya? – Dalam Perspektif Akuntansi', *Accounting Profession Journal*, vol. 4, no. 2, pp. 97–115, Jul. 2022, doi: 10.35593/apaji.v4i2.55.
- [38] S. D. Anggadini, O. M. Putri Zosanti, U. G. Mutmainah, and H. Saputra, 'Pemanfaatan teknologi pada kualitas laporan keuangan perusahaan', *Journal of Information System, Applied, Management, Accounting and Research*, vol. 5, no. 3, p. 644, Aug. 2021, doi: 10.52362/jisamar.v5i3.480.
- [39] M. A. Afifa, H. V. Van, and T. L. H. Van, 'Blockchain Adoption in Accounting by an Extended UTAUT Model: Empirical Evidence From an Emerging Economy', *Journal of Financial Reporting and Accounting*, vol. 21, no. 1, pp. 5–44, 2022, doi: 10.1108/jfra-12-2021-0434.