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Article

Blockchain-Driven Trust: A New Paradigm for Transparency and Governance in Islamic Microfinance Institutions

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Abstract

This study aim for analyze role blockchain technology as paradigm new in build trust, transparency, and governance in *Islamic* Microfinance *Institutions* (IMFIs) in *Indonesia*. The main problems IMFIs face are: limitations system manual reporting, delays in delivery report finance, as well as asymmetry information between management and stakeholders' interests, which results in low trust public and accountability institutional. With use approach qualitative descriptive- analytical research This combines studies literature and analysis context institutional for understand relevance and potential blockchain implementation in sector finance Islamic micro. Research results show that blockchain, through characteristic decentralization, transparency, and record keeping permanent, capable replace system reporting conventional become system recording real-time transactions and can verified in a way public. Findings This consistent with study international spotlight the role of blockchain in increase accountability and effectiveness Islamic social fund management. Comparison with practices in Malaysia, Pakistan and Middle Eastern countries show importance support regulation, readiness digital infrastructure, and adaptation local as key success adoption. Research This give contribution theoretical in development literature modern Islamic finance as well as implications practical for improved governance and trust public towards IMFIs through integration blockchain technology.

Keywords

Blockchain
Finance Islamic Micro
Transparency
Trust
Governance
Islamic Finance

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Introduction

In some decade lastly, the institution finance micro-Islam or *Islamic Microfinance Institutions* (IMFIs) have play role important in support development economy based Islamic values (Qizam et al, 2025). IMFIs is present as instrument finances that aim for give access capital to public earning low, perpetrator business micro, as well as underprivileged communities served by institutions finance conventional. Principle the main underlying IMFIs operations are justice, transparency, and prohibition to practice usury, gharar, and maisir. Through approach This, IMFIs are expected capable push equality economy at a time become solution on problem poverty. However thus, in in practice, IMFIs still face challenge Serious in governance, transparency report finance, as well as level trust public and investors who are still relatively low compared to with institution finance other. (Ogombe, 2023).

Problem main thing that often appear is lack of a system that guarantees transparency and accountability in IMFIs operations (Swaiss, 2024). Most of them institution Still depend on system manual recording or vulnerable centralized to data manipulation, delays reporting, and lack of access public to information finance in real time. This situation creates an information gap between institutions and stakeholders, such as customers, donors, regulators, and investors. In the context of Islamic financial institutions, transparency is not merely an administrative issue, but also a moral and spiritual mandate related to the principles of honesty (*sidq*) and justice (*adl*). This lack of transparency has the potential to undermine public trust and hinder the broader development of Islamic microfinance institutions (Jaradat & Oudat, 2025).

On the other hand, the rapid development of digital technology presents new opportunities to address these issues (Dong et al, 2025). One technology currently in the global spotlight is blockchain. Blockchain is a decentralized digital record-keeping system that allows data to be stored securely, transparently, and immutable. Every transaction recorded on the blockchain network can be verified by all parties with access, thereby reducing the possibility of fraud or manipulation. This characteristic is what makes blockchain believed to be able to create trust systematically, without relying entirely on intermediaries or a single authority. In the context of IMFIs, the use of blockchain has great potential to strengthen financial transparency, increase accountability, and create a more open and efficient governance system.

The application of blockchain technology to Islamic microfinance institutions is not merely a technical innovation but can also create a new paradigm in governance (Mohd Nor, 2021). By utilizing this technology, institutions can build a more inclusive, transparent, and equitable financial system in accordance with Sharia principles. For example, recording of zakat, infaq, and financing transactions can be done in real time and accessible to all stakeholders. will strengthen trust public to institutions, speed up the audit process, and make it easier supervision by regulators. In addition, blockchain can also support process automation through *smart contracts*, which enable implementation digital sharia contracts with level greater compliance Thus, this technology has the potential to become a structural solution to the various transparency and governance issues currently faced by IMFIs.

Based on this description, it is clear that there is a gap between the need for high transparency and accountability in Islamic financial institutions and the current conventional systems (Lakasse, 2024). Blockchain offers an opportunity to bridge this gap through a digital trust-based approach and open governance. Therefore, this study will discuss in depth the role of blockchain as a new paradigm in creating trust, transparency, and governance in Islamic Microfinance Institutions. This study will also analyze the actual conditions of IMFIs, the potential application of blockchain technology, and formulate an implementation model that aligns with the principles of Islamic finance (Minhaj, & Khan, 2025). Thus, research This expected can give contribution theoretical and practical in development system modern, transparent and sustainable Islamic finance (Dogru et al, 2025).

Methods

Research Approach and Type

Study This use approach qualitative with type study descriptive- analytical approach qualitative chosen Because focus study This is understand in a way deep How blockchain technology can form paradigm new in build trust, transparency and governance in institutions finance Islamic Microfinance Institutions (*IMFIs*) Research descriptive-analytical aim For describe phenomenon in a way systematic and objective, and analyze relatedness between concepts main like *trust*, transparency, governance, and blockchain based on empirical data and literature scientific.

Approach This viewed relevant Because topics studied Still relatively new and in need comprehensive understanding to context social, technology, and regulations institution Islamic finance. Through method this, researcher can explore the views of experts, practitioners, and document institutional for formulate an appropriate blockchain implementation model with sharia principles. In addition, the method this also allows researchers for examine practice best practices from various context, so that can give more analysis in-depth and applicable to development system finance Islamic micro -based blockchain technology.

Location and Focus of Research

Focus study This is on the application and potential blockchain technology in increase Transparency, trust, and governance in Islamic Microfinance Institutions (IMFIs). Research location focused on IMFIs operating in Indonesia, considering that Indonesia is one of the countries with amount institution finance growing micro -Islam rapidly. In addition, regulations Islamic finance in Indonesia is classified as advanced and dynamic, so that become strategic context for study implementation technology innovative like blockchain.

Study this also refers to the study comparison to blockchain practices in several other countries, such as Malaysia, Pakistan, and Middle Eastern countries, as material analysis additional. Comparison the aim for give a clearer picture wide about potential as well as challenge implementation blockchain technology in the sector Islamic finance globally, so that results study No only nature local but also has relevance international.

Data Sources

Study This using two types data sources, namely primary data and secondary data.

Primary data obtained through interview in-depth (in*-depth interview)* with a number of informants consisting of on practitioners and management of Islamic Microfinance Institutions (IMFIs), experts Islamic finance and regulators, as well as expert blockchain technology and digital finance. Semi-structured interviews were conducted, allowing researchers to explore information in depth and flexibly. This technique enabled researchers to obtain rich data regarding the informants' perceptions, experiences, and perspectives on the challenges and opportunities of implementing blockchain technology in the context of IMFIs.

Meanwhile, secondary data was obtained through literature and documentation studies relevant to the research topic. Secondary data sources included IMFIs' annual reports and financial statements, government regulations and policies related to Islamic finance and digital technology, scientific journal articles, books, blockchain *whitepapers*, and research reports from international institutions. This secondary data serves as a conceptual foundation that strengthens the field findings and supports the analysis of the application of blockchain technology to improve transparency and governance in IMFIs.

Data Collection Techniques

Data collection techniques in this study were carried out in two ways, namely in-depth interviews and documentation studies.

First, in-depth interviews were used to obtain primary data from predetermined informants. The interviews were semi-structured, providing researchers with a set of questions but still allowing flexibility in exploring further information. This approach enabled researchers to gain a deeper understanding of informants' perspectives on the application of blockchain technology in IMFIs, including implementation challenges, development opportunities, and its impact on transparency, trust, and governance. The interviews were conducted either in person or online, depending on informant availability and field conditions.

Second, a documentation study was used to collect secondary data relevant to the research focus. The documents reviewed included IMFIs' annual reports and financial statements, government regulations, Islamic financial authority policies, scientific articles, journals, books, blockchain whitepapers, and research reports from international institutions. This secondary data is crucial for

providing a theoretical foundation and broader empirical context for the phenomena under study, while also serving as comparative and complementary material to the primary data.

Data Analysis Techniques

Data collected in study This analyzed use analysis Thematic analysis. This technique was chosen because it can systematically identify patterns, themes, and relationships between concepts in qualitative data. The analysis process is carried out through three main stages. The first stage is data reduction, where researchers select, focus, and simplify raw data from interviews and documentation to obtain information relevant to the research focus. The second stage is categorization and coding, which involves grouping data based on main themes such as *transparency*, *trust*, *governance*, and *blockchain implementation*. The coding process is carried out manually or with the assistance of qualitative analysis software, if necessary, to uncover the deeper meaning of informants' answers and the content of the literature. The third stage is data extraction and verification.

Data validation techniques

For ensure validity of data in study this, used a number of technique purposeful validation ensure accuracy, consistency, and reliability findings. The first technique is triangulation source, namely with compare information obtained from various source like practitioners, academics, documents official, and literature scientific. This step done for see data conformity and strengthening objectivity results research. The second technique is member checking, which is the process of confirming interview results with informants to ensure that the researcher's interpretation aligns with their intentions and views. In this way, researchers can avoid misunderstandings or misinterpretations of the information provided. The third technique is peer debriefing, which involves discussions with supervisors or colleagues to obtain input, criticism, and suggestions on the data analysis and interpretation process. By applying these three validation techniques, research results are expected to have a high level of reliability and validity, so that the findings obtained can be scientifically accounted for.

Results and Discussion

Relevance of Findings to Previous Theories and Research

The results of this study indicate that the application of blockchain technology in Islamic Microfinance Institutions (IMFIs) has strong relevance to trust theory, transparency theory, and the concept of good governance. Furthermore, the findings of this study are also consistent with several previous studies that discuss the integration of blockchain technology in the Islamic financial sector, particularly in terms of increasing accountability, public trust, and system efficiency.

First, based on trust theory, public trust in financial institutions is a crucial foundation for operational sustainability. In the context of IMFIs, trust is built not only through formal financial reports but also through consistency in fund management processes and transparency of information to customers. Interview results indicate that most informants believe blockchain technology can strengthen public trust by providing a transparent and unmanipulated transaction recording system.

As expressed by Informant I2, an IMFI Branch Director:

> *"If the public can see the flow of funds and transaction records in real time, it will increase their trust. Until now, our system has been closed and relies on manual reporting, so it's understandable that public trust hasn't fully built yet."* (I2, Interview, June 22, 2025)

This view is consistent with Mayer et al.'s (1995) theory, which states that trust grows through three main dimensions: ability, benevolence, and integrity. Blockchain plays a role in strengthening integrity through permanent and transparent records that are difficult to manipulate.

Second, from a transparency theory perspective, this study found that blockchain can function as *an enabler* in creating an open and accessible information system for all stakeholders. In an interview, Informant I4, an official from the national Islamic financial authority, stated:

> *"One of the classic problems in Islamic microfinance institutions is limited public access to data. Blockchain could be a long-term solution because all transaction records can be verified by any party without compromising Sharia principles."* (I4, Interview, July 5, 2025)

This statement aligns with the findings of Abid et al. (2021), which show that blockchain implementation in Islamic financial institutions can increase transparency and minimize the risk of information asymmetry, particularly in the management of zakat, waqf, and microfinance funds.

Third, from a governance perspective, blockchain has the potential to improve IMFIs' internal and external oversight systems through automated audit mechanisms, smart contracts, and a clear digital footprint. Informants from the technology sector also corroborate this. Informant I6, a CTO of a sharia-compliant fintech startup, explained:

> *"Blockchain can support the principles of good governance by making all processes traceable. For example, in financing disbursements, we can know when transactions were made, by whom, and for what purpose; everything is recorded automatically."* (I6, Interview, July 10, 2025)

Statement the support research by Mohsin et al. (2020) which states that blockchain can strengthening governance in institution Islamic finance with reduce intervention human beings, improve accountability, as well as speed up the audit and reporting process.

In addition, the results study this also shows suitability with a number of studies previously in Malaysia and the Middle East. For example, a study by Salleh & Nordin (2020) shows that blockchain integration in institution Islamic finance in Malaysia is capable reduce practice internal corruption and increase participation public through system open reporting. Findings this is also reinforced by the views Informant I3, an academics and experts Islamic finance, which emphasizes importance utilization technology in strengthen principal trust:

> *"In Islam, the principal trust That no just ethics, but also mechanisms. Blockchain can become tool for ensure trust That executed with systematic and open."* (I3, Interview, June 20, 2025)

In a way overall, findings study This Not only support theory trust, transparency, and governance, but also expand its implementation to in context technology modern Islamic finance. With Thus, research This give contribution empirical to literature that discusses innovation technology in Islamic finance, in particular in increase trust and transparency in IMFIs through blockchain implementation.

Blockchain as a New Paradigm in Building Trust and Transparency

Research result show that blockchain is not just technology recording digital transactions, but is A paradigm new that fundamentally changes method trust and transparency built in institution finance Islamic Microfinance Institutions (IMFIs). In traditional systems, trust is built through intermediaries such as supervisory bodies, manual financial reports, and the institution's reputation. However, blockchain presents a new model that replaces the role of intermediaries with a distributed technological mechanism that is open, permanent, and verifiable by all parties.

In the context of IMFIs, public trust is often a major challenge. The public has high expectations for institutional accountability, but limited access to information and conventional record-keeping systems often raise doubts. Through blockchain, trust no longer relies solely on promises or the reputation of institutions, but on system design that automatically ensures honesty and transparency. This technology creates *a trustless environment*, where all parties can trust the system without having to trust individuals or institutions personally.

This is reflected in an interview with Informant I1, an expert in Islamic financial technology, who stated:

> *"Blockchain is shifting trust paradigm from institution to system. In the past public believe because of the big-name institution, now they Can believe because of the data and the process open and not Can changed. This is a change big in method We build trust public."* (I1, Interview, June 18, 2025)

Besides building trust, blockchain also plays a role significant in create transparency comprehensive. Every transaction recorded in the blockchain are permanent (*immutable*), can traceable, and *can* be accessible in real-time by all authorized parties. This system eliminates the possibility of data manipulation and encourages high accountability. Informants from Islamic financial regulators also participated confess matter This. Informant I4 said:

> *"Until now, transparency has relied on manual periodic reports. With blockchain, transparency occurs 24/7. We, as regulators, can monitor fund movements without having to wait for quarterly reports."* (I4, Interview, July 5, 2025)

This new paradigm also strengthens the direct relationship between IMFIs and the community. With open data access, customers and donors can clearly see how their funds are used and distributed . increase sense of belonging and participation public in support financial programs micro-Sharia- based. Informant I2, a director IMFI branch, revealed:

> *"We often get question from public about where do their funds go? distributed. If the blockchain system is implemented, the community Can Look alone, so No need Again worry or suspicious. This would be very helpful build trust from below."* (I2, Interview, June 22, 2025)

More far, blockchain also introduces smart contracts mechanism, namely automated digital contracts that can operate agreement in accordance sharia provisions without need intervention human. Mechanism This Not only speed up the process, but also reduce opportunity deviation. According to Informant I6, CTO of a sharia fintech startup:

> *That smart contract like assistant who is not Can bribed. If there is agreement financing, system automatic executes in accordance agreed conditions, without mix hand party This ensures fairness and reduces the potential for fraud."* (I6, Interview, July 10, 2025)

With characteristics said, blockchain is capable of define repeat the concept of trust and transparency in system finance Islamic micro paradigm These implications wide on governance, oversight, and relationships institution with society. Previously, trust was of a *top-down*, now trust can build in a way *bottom-up* through democratic data access and openness system. Transparency is no longer an administrative burden, but an integral part of the technology infrastructure itself.

These findings reinforce the literature that refers to blockchain as a "trust machine" (Tapscott & Tapscott, 2016), where trust no longer needs to be mediated by a central institution. In the context of IMFIs, this paradigm is particularly relevant because Islamic microfinance institutions rely on the

principles of trust, honesty, and fairness as the foundation of their operations. Blockchain integration becomes step strategic in ensure principles the executed in a way consistent and open.

Implications for IMFIs Governance

Implementation blockchain technology has very significant implications on the governance of Islamic Microfinance Institutions (IMFIs). Good governance become key IMFIs success in guard trust public, guarantee accountability, as well as ensure compliance to sharia principles. Research results show that the presence of blockchain can strengthen a number of dimensions main governance, namely accountability, transparency, efficiency supervision, and sharia compliance, which during This become challenge main in operational institution finance micro-Islam.

First, blockchain encourages greater internal and external accountability strong. In the system conventional, accountability often relies on manual reports, periodic audits, and honesty manager institution. However, with blockchain, every transaction and activity noted in a way permanent and not can changed, so that all over parties' good management, regulators, and customers can browse real -time cash flow. This creates system data - based accountability, not only Personal trust. A sharia financial regulator, Informant I4, stated:

> *"If previously we rely heavily on the reports submitted every three months, now with our blockchain Can supervise every movement of funds in directly. This is not Again question wait report, but question see proof transactions that are not Can manipulated."* (I4, Interview, July 5, 2025)

Second, from aspect governance transparency, blockchain enables all the party that owns authorization for access notes transaction in a way Open and verified. This minimizes the potential for misappropriation of funds, delays in reporting, or asymmetric information between management and stakeholders. An IMFI manager, Informant I2, stated:

> *"With the blockchain system, we as managers are also encouraged to be more disciplined, because all records can be seen by regulators and the public. There's no Again room for postponed report or data that is not complete." (I2, Interview, June 22, 2025)*

Third, the implementation of blockchain also strengthens efficiency and effectiveness supervision. The regulator does not need Again perform time-consuming manual inspection processes time, because blockchain allows monitoring in a way automatic and continuous (*continuous monitoring*). This is No only speed up the monitoring process, but also reduce burden administrative for IMFIs. An expert technology Islamic finance, Informant I1, said:

> *"Blockchain is changing pattern supervision from reactive become proactive. Regulators do not need Again wait report annual or audit for detect problem. System That Alone give signal when There are suspicious transactions." (I1, Interview, June 18, 2025)*

Fourth, from perspective compliance to sharia principles, blockchain also opens up opportunity big for ensure every transaction in accordance with Islamic provisions. Through implementation *smart contracts*, agreements financing can be executed in a way automatic in accordance principle the agreement that has been determined. This is reduced possibility occurrence violation of sharia due to negligence or manipulation Humans. Informant I6, CTO of a sharia fintech startup, emphasized:

> *"With smart contracts, contracts Can executed automatic in accordance sharia provisions without need mix hand human. This is very helpful ensure compliance and reduce risk violation Islamic principles in practice."*
> (I6, Interview, July 10, 2025)

Lastly, the implications important other is shift governance structure from a centralized model towards a more model participatory and open. In this model, stakeholders such as regulators, investors, and the public can follow as well as in the verification and supervision process through blockchain network. This creates mechanism *multi-stakeholder governance*, where responsibility answer supervision No Again is at only on one institution, but distributed in a way collective. Informant I3, a researcher's Islamic economics, explains:

> *"Blockchain creates governance become more open and participatory. No longer only regulators or auditors know content report, but all parties involved Can see in a way transparent. This increases the sense of ownership and shared accountability."* (I3, Interview, June 25, 2025)

In a way overall, findings This show that blockchain implementation can become instrument transformation of IMFIs governance. From the original system hierarchical, manual, and closed, becoming distributed, automated, and transparent systems. Transformation This No only support efficiency and compliance, but also strengthen values base Islamic finance such as trust, honesty and justice. With Thus, blockchain does not only play a role as t

Comparison with Practices in Other Countries (Malaysia, Pakistan, Middle East)

Globally, the application of blockchain technology to Islamic Microfinance Institutions (IMFIs) has seen rapid development in several countries, including Malaysia, Pakistan, and the Middle East. Comparisons with practices in these countries provide important insights into the level of preparedness, governance strategies, and regulatory approaches, which can provide valuable lessons for Indonesia.

Blockchain Integration with Progressive Regulation

Malaysia is one of the countries that is quite advanced in terms of regulation and adoption of Sharia-compliant financial technology. The government, through Bank Negara Malaysia and the Securities Commission Malaysia, is actively promoting the development of *Islamic fintech*, including blockchain, through regulatory sandboxes and collaborative initiatives between financial institutions and startups. Several Sharia microfinance institutions in Malaysia have begun using blockchain for recording zakat and waqf funds, as well as real-time financial reporting.

A Islamic fintech academic, Informant I5, revealed:

> *"In Malaysia, the government is very supportive blockchain implementation. They create a regulatory sandbox that allows institution finance try technology new without Afraid violate " This regulation is very helpful in accelerating innovation, including in the Islamic microfinance sector."* (I5, Interview, July 12, 2025)

In addition to regulatory support, the governance of Islamic microfinance institutions in Malaysia is also better prepared thanks to standardized reporting and an integrated digital financial system, making blockchain a complement, not a complete replacement. Informant I1, an Islamic financial technology expert, added:

> *"Malaysia already has a robust digital infrastructure. Blockchain just needs to be incorporated as a tracking and verification system. So they're not starting from scratch like many other countries."* (I1, Interview, June 18, 2025)

Focus on Transparency and Inclusion Finance

Different with Malaysia, Pakistan positions blockchain as tool for expand inclusion finance and improve transparency distribution of Islamic micro funds especially for public rural areas. Government Work The same with institution local Islamic finance for using blockchain in recording distribution financing micro so as not to happen deviation and duplication recipient benefit.

Informant I2, a practitioner's institution micro sharia in Indonesia that ever follow the training program international, conveying:

> *"Pakistan is interesting, because they using blockchain instead only for internal efficiency, but for ensure the funds are truly until to public target. So, more focus to aspect justice distribution and supervision public."* (I2, Interview, June 22, 2025)

Pakistan's approach is simpler compared to Malaysia, however impact big in strengthening public trust to institution Islamic finance, especially Because public Can access notes transaction in a way open through a public blockchain platform.

Middle East: Blockchain Experiments for Endowments and Governance

Countries in the Middle East region, such as the United Arab Emirates and Bahrain, have do various experiment in the use of blockchain, in particular for management waqf, zakat, and governance Islamic finance in scale national. Some institution finance micro-Islam begins integrating blockchain for ensure that management of Islamic social funds in accordance with with sharia principles and can audited in a way open.

An Islamic economics researcher, Informant I3, explained:

> *"In the Middle East, blockchain is being used not only for microtransactions, but also for the governance of national waqf and zakat funds. This demonstrates how technology can be applied to strengthen the Islamic financial system at a macro level."* (I3, Interview, June 25, 2025)

Middle East approach tends to be top-down, with role strong from government and authorities religious in designing blockchain framework. Focus mainly is create system transparent, safe and sharia - compliant Islamic finance scale national, not only institution micro.

Implications for IMFIs Governance in Indonesia

This comparison provides several important lessons for the governance of IMFIs in Indonesia. First, like Malaysia, Indonesia can strengthen regulatory support and digital infrastructure to enable rapid and standardized blockchain adoption. Second, Pakistan's approach demonstrates the importance of focusing on financial inclusion and transparency in fund distribution, particularly for low-income communities in rural areas. Third, the Middle Eastern model can serve as inspiration for integrated Islamic social fund management through blockchain.

An Indonesian regulator, Informant I4, asserted:

> *"If we look at Malaysia and Pakistan, they have a clear focus and strong government support. In Indonesia, we also need a clear policy direction so that blockchain isn't just a pilot project, but a true part of the Islamic financial governance system."* (I4, Interview, July 5, 2025)

Thus, blockchain implementation in Indonesia can be designed using a hybrid approach, combining regulatory support, strengthening transparency and inclusion, and digital management of Islamic social funds. This combination of three approaches can strengthen IMFIs governance and increase public trust in the national Islamic financial system.

Blockchain as a New Paradigm for IMFIs Governance

Issue main in the governance of Islamic Microfinance Institutions (IMFIs) is limitations in build trust public, transparency, and accountability fund management. These challenges arise from the still-commonly used manual reporting system, delays in submitting financial reports, and information asymmetry between management and stakeholders. This situation is exacerbated by the limited use of digital technology capable of creating a real-time and publicly verifiable monitoring system. This situation aligns with previous research findings that Islamic microfinance faces the risk of low trust due to the lack of a transparent and standardized record-keeping system (Kunhibava, 2024; Hassan et al., 2023).

In context mentioned, blockchain technology offers paradigm new relevant with IMFIs needs (Muharam &Osman, 2024). With characteristics decentralization, immutability, and transparency, blockchain can replace system reporting conventional become system recording permanent and reversible transactions accessible in a way open. Through distributed ledger mechanism, each transaction finance recorded in real-time and can verified by the authorities without intermediary. This is made blockchain not just tool technology, but rather instrument strengthening trust institutional approach this is also in line with Islamic principles about trustworthiness and honesty in management property, as confirmed in literature modern Islamic finance (Jadoon, 2024).

Election approach qualitative descriptive-analytical in study This proven appropriate for dig understanding deep about blockchain integration with IMFIs governance (Al Shamsi, 2024). Approach This allows researchers for examine phenomenon No only from side technical, but also from context social, regulatory, and sharia values that surround it. Through interview in-depth and study literature, data obtained that illustrates stakeholders' perceptions interest to challenges and opportunities blockchain implementation. Analysis techniques thematic Then used for identify patterns and themes relevant keys, such as trust, transparency, governance, and implementation blockchain technology (Díaz, 2025).

This approach aligns with Braun and Clarke's (2006) qualitative analysis model, which emphasizes identifying and interpreting key themes from empirical data. The results demonstrate a close relationship between technological innovation and the socio-religious needs of IMFIs, which cannot be captured through quantitative surveys alone. Therefore, qualitative methods provide an essential foundation for a holistic understanding of how blockchain can act as a new paradigm in the governance of Islamic financial institutions.

The results of this study are consistent with several international studies on the role of blockchain in Islamic finance. Kunhibava (2024) demonstrated that blockchain can increase transparency and accountability in waqf and zakat management through publicly auditable transaction records. Research by Hassan et al. (2023) emphasized that this technology can support sharia principles through the automation of contracts using smart contracts. Meanwhile, Jadoon (2024) noted that the application of blockchain in the distribution of zakat funds in Pakistan increased public trust and reduced duplication of beneficiaries.

This research extends these findings by focusing on the Islamic microfinance sector in Indonesia. The analysis reveals that the fundamental problem of IMFIs lies not only in external transparency but also in internal governance, which has not been fully digitized. In this context, blockchain offers a solution to create a monitoring system that relies not on manual reporting but rather on permanently recorded and collectively verifiable data. Thus, this research confirms the relevance of the theory and enriches the discourse in the local Indonesian context.

The experiences of several countries offer important lessons for Indonesia. Malaysia, for example, has leveraged a progressive regulatory framework through a regulatory sandbox to integrate blockchain into the Islamic finance sector. This approach allows financial institutions to test new technologies in a controlled environment without the risk of regulatory violations (Case Studies on Innovations in Islamic Finance, 2024). In Malaysia, blockchain is being used as a complement to established digital systems, accelerating the adoption and standardization of financial reporting.

Pakistan has a different approach. Its focus is not on modernizing financial infrastructure, but rather on increasing transparency and financial inclusion. Blockchain is being utilized to ensure the targeted distribution of Islamic microfinance funds, particularly to rural communities (Jadoon, 2024). Meanwhile, Middle Eastern countries such as the United Arab Emirates and Bahrain have integrated blockchain into the governance of Islamic social funds at a national scale. Their focus is on establishing a transparent and Sharia-compliant Islamic financial system at the macro level.

Third approach This show that blockchain implementation must be customized with context Each country's institutional and regulatory framework. For Indonesia, a hybrid strategy combining regulatory support, financial inclusion, and digital integration is key. This will enable IMFIs to not only strengthen internal governance but also enhance broader public trust.

Theoretically, this research contributes to the development of literature on the integration of blockchain technology with Islamic financial principles (Sami, 2025). Blockchain is not just instrument technology, but rather strengthening mechanisms sharia principles such as trust and justice. Smart contracts make it possible sharia contracts are executed in a way automatic without manipulation humans, while distributed ledgers guarantee transparency full for all This integration broadens the understanding of how Islamic values can be operationalized through modern technology (Hassan et al., 2023).

From a practical perspective, the research findings indicate that blockchain adoption has significant implications for the governance of Islamic microfinance institutions (IMFIs). First, blockchain strengthens accountability by permanently and transparently recording every transaction. Second, this technology reduces administrative burdens and accelerates reporting and oversight processes. Third, blockchain implementation enables continuous oversight by regulators, thereby reducing the risk of financial irregularities. Fourth, this system increases public trust in Islamic microfinance institutions through transparent, non-manipulable information (Fauzan, (2025).

Conclusion

This study concludes that the main challenges in the governance of *Islamic Microfinance Institutions* (IMFIs) in Indonesia lie in the low transparency, accountability, and public trust due to manual reporting systems and a lack of digitalization. In this context, blockchain technology offers a new paradigm through its characteristics of decentralization, openness, and permanent transaction recording in accordance with Sharia principles of trustworthiness and honesty. These findings align with various international studies that confirm blockchain's effectiveness in improving transparency and governance of Islamic finance. Comparisons with practices in Malaysia, Pakistan, and Middle Eastern countries demonstrate the importance of regulatory support, institutional readiness, and adaptation to local contexts for optimal implementation. Therefore, blockchain can be a strategic instrument in strengthening IMFI governance in Indonesia, increasing supervisory efficiency, and building sustainable public trust.

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