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LEGAL ANALYSIS OF METAVERSE BANKING FROM THE PERSPECTIVE OF ISLAMIC ECONOMICS

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Abstract

Introduction to The Problem: The emergence of the metaverse banking concept is a consequence of advances in virtual world technology. However, its implementation raises various legal issues that still lack clarity, particularly in the context of Islamic economics. Therefore, in-depth research is needed to ensure that future digital banking services align with the principles of Sharia. This study includes important issues such as ownership of digital assets, clarity of the legal status of virtual transactions, and the extent to which these activities conform to Islamic teachings.

Purpose/Objective Study: In order to implement metaverse banking in Indonesia, this research aims to develop a legal framework that complies with sharia provisions, identify potential violations of sharia principles in virtual banking operations, and analyze the legal aspects of metaverse banking from the perspective of sharia economics.

Design/Methodology/Approach: This research uses a qualitative methodology that combines normative analysis and library research techniques. The Quran, Hadith, fatwas from DSN-MUI, regulations, and scientific works related to sharia economics and metaverse banking are studied to gather data. A comparative method between metaverse banking practices and sharia principles is used to conduct the analysis.

Findings: The findings of this study indicate that if metaverse banking meets the requirements of transparency, avoids usury and uncertainty, and guarantees halal underlying assets, then it can comply with the principles of Islamic economics. However, the unique nature of virtual transactions and the need for strict oversight of security features and consumer protection in the metaverse environment require additional regulatory modifications.

Paper Type: Research Article

Keywords: Metaverse Banking; Islamic Economy; Islamic Law; Digital Banking; Financial Technology.

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INTRODUCTION

The rapid advancement of digital technology has fundamentally transformed the global financial system, particularly through the emergence of blockchain, cryptocurrency, and the concept of the metaverse. These developments have not only expanded the scope and speed of financial transactions but have also raised significant normative and legal questions that challenge the foundational principles of Islamic economic law (Faika, 2024). In this context, the integration of financial services into immersive virtual environments has introduced a new phenomenon known as metaverse banking. As an extension of digital banking innovation, metaverse banking allows financial institutions to operate within a three-dimensional virtual world where clients may engage with banking services through digital avatars, conduct financial transactions using virtual currencies, and access various banking products without physical presence (Kandpal, 2025). This innovation is often promoted as a future oriented solution capable of enhancing customer experience, increasing efficiency, and providing broader financial inclusion.

Nevertheless, despite its promising opportunities, metaverse banking also generates unprecedented legal complexities, particularly when examined through the highly normative framework of Islamic economics. Islamic banking and finance are governed by strict Sharia principles that emphasize ethical conduct, transparency, and fairness in all economic activities. Core prohibitions such as *riba* (interest), *gharar* (excessive uncertainty), and *maysir* (gambling) form the foundation of Sharia-compliant financial transactions. Additionally, Islamic jurisprudence requires the existence of a legitimate underlying asset (*mal)* and clear contractual terms (*akad*) in every transaction. However, metaverse-based financial activities often involve speculative elements, asset virtualization, and uncertainty in transaction values, which may potentially contradict these fundamental requirements. The digital nature of the metaverse raises critical concerns regarding whether transactions conducted in immersive environments can fulfill Sharia standards of contractual clarity, mutual consent, and enforceability (Haroon et al., 2025).

A major challenge arises from the increasing use of digital assets such as nonfungible tokens (NFTs), cryptocurrencies with fluctuating and non-guaranteed values, and virtual property ownership within the metaverse. These phenomena complicate the legal status of ownership and the validity of transaction objects under Islamic law. In Sharia jurisprudence, an asset must be clearly defined, legally owned, and capable of being delivered (*qabd*) in order to constitute a valid subject matter of a contract. However, virtual assets in the metaverse may exist only in digital form, often without clear linkage to tangible economic value. Furthermore, the application of smart contracts in metaverse

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banking presents additional concerns. If such automated mechanisms are not structured in accordance with the principles of *fiqh muamalah*, issues may emerge, including the absence of a legitimate transaction object, unclear intention (*niyyah*) in an immersive digital setting, and ambiguous rights and obligations between contracting parties (Aulia, 2025).

To date, most existing studies on metaverse banking have primarily focused on its technological infrastructure, business models, and economic opportunities. Scholarly discussions have largely emphasized innovation, digital transformation, and the potential of the metaverse to reshape consumer interaction in financial services. However, academic research examining metaverse banking from the perspective of Islamic economic law remains scarce. In particular, there is still a lack of comprehensive legal analysis addressing the Sharia validity of virtual contracts, the permissibility of digital currencies and tokenized assets, and the regulatory mechanisms required to ensure compliance in metaverse based banking operations (Jamila et al., 2025). This limitation highlights a significant research gap, as Islamic finance requires robust jurisprudential guidance and regulatory clarity to prevent emerging digital practices from violating fundamental Sharia principles.

This issue becomes especially critical in Indonesia, the world's largest Muslim-majority country with a rapidly expanding Islamic finance sector. Indonesia has positioned itself as a global hub for Sharia banking development, supported by increasing public demand for Islamic financial products. In such a context, public trust in Islamic financial institutions is closely tied to their ability to maintain strict Sharia compliance. However, despite the growing relevance of digital innovation, there has been no specific fatwa issued by the National Sharia Council of the Indonesian Ulema Council (DSN-MUI), nor explicit regulations from the Financial Services Authority (OJK), that directly govern banking operations within metaverse environments. The absence of such guidance increases the likelihood of Sharia violations in complex online transactions, including elements of *tadlis* (fraud), *ikhtikar* (digital price monopolization), or *ghabn* (severe exchange imbalance). Moreover, Sharia supervision and auditing become increasingly questionable in the absence of mandatory validation requirements for virtual business platforms (Gazali, 2025).

Therefore, the development of an adaptive regulatory framework aligned with *maqashid al-shariah* (the objectives of Islamic law) is urgently needed to support technological innovation while safeguarding justice, transparency, and consumer protection. Metaverse banking should not only be evaluated as a technological advancement but also as a legal and ethical challenge requiring serious attention from regulators, scholars, Islamic fintech practitioners, and fatwa authorities. Accordingly, this study seeks to fill the existing research gap by examining the legal consequences of metaverse banking practices through the lens of Islamic economics (Utomo et al., 2021).

LITERATURE REVIEW

Blockchain and Islamic Economy

Blockchain is a decentralized electronic ledger system that records every valuable transaction, whether it involves cash, products, real estate, and others. In a secure and durable encrypted format. Blockchain is essentially a distributed database that records transactions and makes them available to those involved. To reduce fraud, each transaction must comply with the consensus established in the database network. Blockchain makes it simple, secure, transparent, and free from costly and time-consuming processes, making it more effective and efficient (Septianda et al., 2022).

The relationship between blockchain technology and Islamic economics has been studied in several previous publications. One study by Birjaman et al., (2024) the study of 23 articles on blockchain and Islamic economics concluded that characteristics such as transparency, permanence, and decentralization are consistent with Islamic principles such as justice (*'adl*) and trustworthiness (*amanah*). With smart contracts providing openness and trust between parties, blockchain technology is considered capable of facilitating Islamic contracts. The speculative use of digital assets, such as cryptocurrencies and NFTs, which may contain components of *maysir* and *gharar*, pose sharia dangers, they also indicate. Before blockchain can be fully implemented in the Islamic financial system, especially in metaverse banking practices, further research is needed, as evidenced by the majority of the literature surveyed (65%) being neutral.

Blockchain technology is transparent, immutable, and decentralized; it has the ability to significantly reduce information asymmetry and foster trust among project participants. According to research Cerić (2021), these characteristics align with the values of *amanah* (honesty) and *'adl* (justice) in the context of Islamic finance. Blockchain can facilitate fairer and more transparent transactions without intermediaries by replacing technological trust with relational trust. Although this study focuses on development projects, the fundamental idea behind blockchain technology supports the possibility of its integration into Islamic financial systems such as metaverse banking, provided it is supported by appropriate Islamic contract frameworks and supervision.

Sharia governance is very important to ensure that Islamic financial institutions comply with sharia norms. The sharia governance norms from AAOIFI, IFSB, Bank Negara Malaysia, and Bank Indonesia are compared in this study. Since it includes definitions of sharia governance, the functions of the Sharia Board, sharia audits, and risk management, the IFSB standard is considered the most comprehensive. Key governance issues in the context of Islamic DeFi (Decentralized Finance) arise from the lack of direct oversight and autonomy, which is difficult to establish

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in a decentralized system. To ensure that innovations such as DeFi and metaverse banking remain within sharia corridors and do not violate fundamental values such as justice, transparency, and the prohibition of *gharar*, a strong and flexible sharia governance system is necessary (Arrazi, 2023).

Cryptocurrency and Uncertainty of Sharia Law

Along with the development of the digital economy, one of the instruments that has become a topic of discussion among scholars and intellectuals of *muamalah* jurisprudence is cryptocurrency. There are still differing opinions regarding its legal validity, both from the substantive Sharia perspective and the formal legal components. According to research Faisol (2021), there are two main opinions among academics regarding the legal status of cryptocurrencies. Some consider it permissible if it meets certain criteria, such as not having *gharar* or *maysir* and being beneficial and legitimate to be transferred as *maal* (property). However, other organizations prohibit it because cryptocurrencies are deemed unstable, lacking inherent value, and prone to being misused for illicit purposes, thus containing elements of *maysir* and g*harar*.

According to other academics, cryptocurrencies are not a legitimate means of exchange under Sharia law because they do not have intrinsic value, are very volatile, and tend to be used illegally. There are clear signs of *gharar* due to the high risks and uncertainties. This opinion is supported by research (Ulfah et al., 2025), which concludes that due to the anonymous nature of cryptocurrencies, their instability, and their lack of recognition by Indonesian law, cryptocurrencies cannot yet be accepted in the fiqh of muamalah. As a result, the legal status of cryptocurrencies remains unclear and is still in the stage of ijtihad. This indicates that when evaluating the use of digital assets, especially when incorporated into the metaverse-based Islamic financial ecosystem, a more focused and contextual approach is necessary.

The significant volatility of cryptocurrencies creates uncertainty in exchange rates, leading to *gharar* components in transactions when viewed through the lens of Islamic economics. The complexity of inconsistent legislation and uncertainty surrounding Islamic law in various countries exacerbates this situation. Sharia risk increases due to the lack of underlying assets and rapid changes, thus requiring risk management strategies that take into account the characteristics of digital assets (Mas'ut, 2023).

Digital Assets and Islamic Contracts

The use of Non-Fungible Tokens (NFTs) in the emerging digital economy presents additional challenges for the implementation of Sharia contracts. The nature of NFTs, which are intangible, unique, and non-interchangeable digital assets based on blockchain, raises questions about their legality as contract objects in Islamic commercial

law (*fiqh muamalah*). For a transaction to be considered valid in Islam, it must have a clear purpose, be beneficial, and be possessible and transferable in accordance with Sharia. NFTs may contain elements of *gharar* (uncertainty) and *maysir* (speculation), which are contrary to Sharia principles, as they often lack an actual underlying asset and their economic value heavily depends on market perception. As a result, modern ijtihad is needed to examine whether NFTs fit within the legal framework governing Islamic trade (Azmi et al., 2025).

This study shows that there are no specific statutory regulations from OJK or Bank Indonesia that specifically govern the legal protection of digital assets in Islamic finance related to digital assets and Fintech. As an alternative, the main framework for Sharia assessment for digital transactions is the DSN-MUI fatwa, specifically Fatwa No. 117/DSN-MUI/II/2018. Based on this fatwa, all digital transactions in Islamic finance must avoid *riba*, *gharar*, and *maysir*, and may only use valid contracts such as *bai', ijarah, qardh,* and *musyarakah* (Rahman et al., 2021). The main factors in determining the halal status of digital assets are asset backing, utility function, and compliance with anti-speculation principles while creating a framework for Shariah evaluation of various types of digital assets. This strategy aims to ensure that digital assets used in transactions comply with the fundamentals of *muamalah*, including avoiding aspects of *gharar* and *maysir*, legitimate ownership, and clarity of benefits.

Metaverse and the Scope of New Transactions

In a sharia-based digital ecosystem, the growth of the metaverse in Indonesia has created additional areas of *muamalah*. Through a *wakaf* and *syirkah* based eko metaverse model, empirical research by Insawan et al., (2025), it shows that the metaverse has the potential to be used in various fields, including education, business, and social transactions. To ensure that commercial transactions in the virtual world adhere to Islamic values, such as justice, transparency, and the absence of *gharar* and *maysir* aspects, this research suggests the creation of halal platforms and sharia supervisory organizations. According to Imam et al., (2024), the metaverse can be utilized in Islamic banking by integrating religious considerations within the Technology Acceptance Model (TAM). Their study indicates that the Muslim community's adoption of metaverse technology depends on its perceived compliance with Islamic principles and its potential to expand access to Islamic financial services Furthermore, they investigate how the principles of Islamic finance can be fully incorporated into metaverse arrangements to enhance consumer satisfaction by improving bank reputation, trust, and service quality. This study highlights the importance of maintaining Islamic identity while offering digital financial services to remain compliant with the *maqashid sharia* (Ariani et al., 2025).

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According to Nur et al., (2024), the growth of sharia fintech along with its prospects and challenges in Indonesia, emphasizing regulatory issues as the main obstacle. Their research further highlights a gap between the regulatory readiness of the OJK and the explosive growth of the sharia fintech industry. The minimum capital requirements and licensing are considered burdensome for business operators, particularly for small startups, and there is still no digital fatwa standard that can adapt to the developments in sharia-based fintech.

In order to ensure automatic Sharia compliance through smart contracts, Islamic financial innovation in the digital era requires the integration of technologies such as blockchain and artificial intelligence. To test technology-based Sharia goods without violating principles such as the prohibition of *riba* and *gharar*, regulatory innovations including the establishment of regulatory sandboxes are necessary. It is also important to modify fatwas and legal frameworks to ensure that virtual transactions continue to comply with Sharia economic principles, especially considering the emerging ecosystems like metaverse banking (Abiola et al., 2025). Based OJK analysis of the roadmap for the development of sharia finance in Indonesia from 2023 to 2025 shows the government's dedication to promoting the digitalization of the sharia finance sector, including building sharia fintech infrastructure and strengthening the regulatory environment.

Although research on digital innovation within Islamic economics continues to expand, scholarly studies that specifically examine metaverse banking from the perspective of Islamic law remain very limited. Several recent works have begun to highlight the challenges posed by virtual transactions to Sharia principles, particularly concerning the legal status of digital assets such as NFTs and cryptocurrencies, which may involve elements of *gharar* (excessive uncertainty) and *maysir* (speculation or gambling) (Haryati et al., 2025). In addition, the trading of virtual assets, such as digital land, has generated ongoing debate regarding the validity of *akad* under *fiqh muamalah*, given the volatility of cryptocurrencies and the intangible nature of such assets.

Nevertheless, these studies remain fragmented and have not yet provided a comprehensive legal framework for regulating metaverse banking operations in accordance with Sharia principles. In the Indonesian context, no explicit regulation or fatwa has so far been established to govern metaverse-based financial services and ensure Sharia compliance (Pratama, 2023). Therefore, this study seeks to address this research gap by offering a legal analysis of metaverse banking from the perspective of Islamic economics and proposing regulatory considerations aligned with fundamental Sharia principles.

METHODOLOGY

This research applies a qualitative approach based on normative law, aiming to examine the conformity of banking activities in the metaverse with the principles of Islamic economics. This method combines literature studies and doctrinal legal analysis to understand the normative foundations of Islam sourced from the Quran, Hadith, and fatwas issued by DSN-MUI. In addition, a comparative approach is used to assess the compatibility between the sharia concept and virtual financial practices in the metaverse space.

The data employed in this study consists of both primary and secondary sources. Primary sources include the main references of Islamic law, such as verses of the Qur'an, the Hadith of the Prophet, and official fatwas issued by authorized Sharia institutions. Secondary sources comprise national legal provisions, including statutory laws, regulations issued by the Financial Services Authority (OJK) and Bank Indonesia, as well as scholarly literature addressing Islamic economics, financial technology, and metaverse-based digital banking. Data collection is conducted through documentation techniques and content analysis by examining various relevant legal and academic materials. The data are subsequently analyzed descriptively and normatively using a comparative approach to evaluate the extent to which metaverse banking services comply with Sharia principles, particularly those derived from *fiqh muamalah*, such as the prohibition of *riba, gharar,* and *maysir*, as well as the requirements for contractual validity and asset ownership.

To strengthen the reliability of the findings, source triangulation is applied by comparing authoritative Islamic references with Sharia banking regulations in Indonesia, ensuring that the analysis maintains both academic rigor and contextual relevance. Nevertheless, this study is limited to document-based analysis and does not incorporate empirical field data, such as interviews with regulators, Islamic banking practitioners, or users of metaverse financial services. Therefore, future research adopting empirical approaches is necessary to complement and reinforce the normative findings of this study.

RESULTS AND DISCUSSION

The Concept of Digital Ownership in *Fiqh Muamalah*

The discussion on *fiqh muamalah* becomes more complex when the ownership of digital assets in the metaverse banking is examined. Theoretically, the ownership of digital assets is permitted as long as it does not conflict with Sharia principles, in accordance with the fiqh rule *"al-ashlu fi al-ashya' al-ibahah"* (everything is permissible in essence). In this sense, digital assets in the metaverse can be classified as mal (property) if they meet certain criteria, including being transferable, having advantages, possessing economic value, and not containing elements of *maysir* (gambling) and *gharar* (uncertainty).

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The principles of Islamic economics must be assimilated into the metaverse ecosystem so as not to get caught in the unlimited freedom of capitalism (Nafiah, 2022). As part of this internalization, the idea of limited ownership in Islam is recognized, which states that Allah essentially owns all property and humans merely act as managers (khalifah). As long as it is acquired through valid contracts and does not contradict the values of justice, unity, and welfare, digital assets can be owned in this situation according to Sharia. If traded at a comparable value, digital ownership such as cryptocurrency or digital tokens in the metaverse banking can be equated with *sharf* (currency exchange) in the paradigm of *fiqh muamalah*. Cryptocurrency transactions are permissible as long as they are conducted with cash and do not contain elements of excessive speculation (Ali, 2024). The legal status of such digital assets can be questioned or even deemed unlawful if there is no clear underlying asset. Therefore, as long as it is within the limits of Islamic principles and law, the *fiqh of muamalah* allows for the recognition of digital ownership. Without adjustments to Sharia norms, the metaverse cannot be fully embraced at this time, especially regarding ownership and value exchange.

Identification of *Gharar* and *Maysir* Potentials in Metaverse Banking

Several components that may contain *maysir* (gambling) and *gharar* (extreme uncertainty) are also found through the analysis of metaverse banking practices. NFT (Non-Fungible Token) transactions are one example, which often exhibit strong speculative characteristics. Because the value of NFTs is highly volatile and often lacks a strong foundation, NFTs can be considered as *gharar fahish*, which is prohibited in Islam. The volatility and high speculation in digital assets represent a risky practice that is contrary to the principles of stability and economic certainty in Sharia (Herman et al., 2024).

It is important to remember that not all metaverse financial activities contain elements of *maysir* and *gharar*. According to this research, sharia allows for the provision of essential services such as digital fund storage, transfer, and payment as long as these services are conducted through an open system that is free from fraud and ambiguity. A cautious approach that emphasizes that the only way to prevent *gharar* and *maysir* is through fair, transparent, and unambiguous transaction procedures supports this (Akram et al., 2024). Therefore, the design and implementation of a metaverse financial system that complies with Sharia must strictly adhere to the concepts of mitigating *gharar* and *maysir*. Ensuring the validity of digital transactions in the virtual realm requires regulatory oversight, user education, and participation from Sharia experts.

Table 1. Gharar and Maysir Risk Matrix in Metaverse Banking

Aktivity	Level of Gharar	Level of Maysir	Risk Factor	Mitigation Soulution	Recommendation Status
Trading NFT	High	High	Extreme volatility, speculation	Establishment of clear baseline values	Not Recommended
Virtual Property Investment	Medium	Low	Value fluctuations, limited utility	Due diligence, diversification	Careful
Digital Banking Services	Low	Low	Technical risks, cybersecurity	Encryption, periodic audit	Recommended
Smart Contract Execution	Low	Low	Bug in the code, manipulation	Sharia audit, testing	Recommended
Cryptocurrency Exchange	Medium	Medium	Volatility, short-term speculation	Trading limits, education	With Conditions

Source: Researcher (2025)

Adaptation of Fatwa DSN-MUI No. 116/2017 on Metaverse Banking

Sharia Fatwa DSN-MUI No. 116/DSN-MUI/IX/2017 A set of guidelines that are highly relevant for creating a metaverse financial system that complies with sharia is offered by electronic money. The existence of benchmark assets, the prohibition of gambling and usury, and the need for transparent and unambiguous contracts are some of the main points raised. In a virtual world with digital assets such as NFTs and cryptocurrencies, where ownership, profits, and value can sometimes be impossible to confirm directly, these concepts become important.

In reality, *gharar* (uncertainty) and *maysir* (speculation or gambling) often occur in investments made in the metaverse. For instance, NFT transactions often lack a real underlying value and are susceptible to

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sharp fluctuations, which can lead to doubt (*gharar*) and potential gambling (*maysir*), both of which are prohibited in Islam. Furthermore, if they have a clear basis and are used for acceptable purposes, digital assets like cryptocurrencies may be halal as commodities. However, these assets are highly vulnerable to fraud and abuse due to price volatility and lack of oversight (Lathifa et al., 2025).

It is important to remember that gharar and maysir do not always exist in financial transactions in the virtual world. As long as the transactions are conducted transparently, without fraud, and with clear contracts, sharia still permits the storage, transfer, and payment of digital funds. Therefore, careful strategies and the creation of a sharia-based system that upholds the values of justice and openness are necessary (Purwanto & Ajhar, 2023).

A new fatwa outlining the requirements for sharia compliance regarding virtual assets is needed as a solution. In addition, blockchain-based smart contracts must be implemented to ensure that contracts operate automatically, securely, and without manipulation. Building monitoring and education systems is also important to ensure that users are aware of sharia transaction formats in the virtual space and avoid involvement in activities that contradict Islamic law (Raden et al., 2025).

Monitoring and Compliance Mechanism

A different oversight mechanism from traditional banking systems is necessary for the implementation of Islamic metaverse banking. This is due to the decentralized nature of blockchain technology and the complex dynamics of the virtual world. Traditional methods are insufficient to identify and halt violations of Sharia, which can occur rapidly and discreetly online. Therefore, this study demonstrates that the primary method for real-time monitoring of digital transactions in the metaverse banking is by utilizing RegTech (Regulatory Technology). RegTech allows for the automatic identification of Sharia non-compliance, including transactions based on *riba*, *gharar*, and *maysir* with the help of technologies such as blockchain and artificial intelligence (AI) (Harahap & Aziz, 2024).

In this digital era, the role of the Sharia Supervisory Board (DPS) must be strengthened. The DPS is responsible for ensuring that the goods and services provided by Islamic banks in cyberspace continue to adhere to Islamic ideals and Sharia law. The DPS must adapt to the digital era by mastering technology and conducting system-based digital audits. In addition to being carried out periodically, this supervision must be supported by technology that enables accountability and transparency in real time (Syarvina & Anggraini, 2024). This study also emphasizes the importance of using blockchain and artificial intelligence to enhance the automation and oversight of Islamic banking systems. In addition to improving transaction efficiency, this technology can be used to build

intelligent compliance systems that utilize smart contracts and immutable blockchain records to autonomously implement Sharia requirements.

Sharia technology literacy must be integrated into oversight, as the education of actors and consumers plays a crucial role in creating awareness-based compliance, rather than mere system compliance. This aligns with the Islamic norms of *ta'zir* and *hisbah*, which encourage moral and social oversight. Building a strong oversight and compliance system in sharia metaverse banking requires the integration of RegTech technology, strengthening the role of DPS, and the utilization of AI and blockchain-based technology (Santoso et al., 2024).

Sharia-Compliant Business Model

The primary challenge in developing metaverse banking lies not merely in technological innovation, but rather in ensuring that all virtual transactions remain fully compliant with Sharia principles. This requires clarity of *akad* (contract), certainty of the transaction object, transparency of value, and the prevention of prohibited elements such as *riba*, *gharar*, and *maysir*. Scholarly discussions on wealth acquisition within the metaverse underscore the considerable difficulties of applying Islamic economic law to digital assets such as NFTs and cryptocurrencies, particularly due to excessive speculation and legal uncertainty that contradict the Islamic principles of justice and transparency. These concerns highlight the urgent need for a structured framework of Sharia compliance within virtual financial environments (Haryati et al., 2025).

To achieve such compliance, adaptive Islamic contractual models such as *mudharabah* for profit-sharing investment, *murabahah* for asset financing with agreed profit margins, and ijarah for leasing virtual assets must be explicitly formulated within the metaverse context. This approach is consistent with broader Islamic fintech governance discourse, which emphasizes the integration of Sharia requirements, including asset legitimacy and transactional transparency, into digital financial platforms (Wahab et al., 2025).

International experiences also provide valuable regulatory insights. Malaysia, for instance, has adopted a more progressive Sharia fintech governance framework that prioritizes regulatory oversight and consumer protection to ensure the Sharia integrity of digital financial services. In contrast, Indonesia legal instruments dedicated to Islamic fintech remain relatively underdeveloped. Comparative analyses of fintech regulation in Indonesia and Malaysia indicate that Malaysia more structured framework offers greater clarity for both service providers and users, thereby demonstrating the importance of robust regulatory design in supporting Sharia compliance within emerging financial technologies (Fahamsyah et al., 2025).

Accordingly, this study proposes a practical regulatory roadmap for metaverse banking in Indonesia, beginning with: (1) the formulation

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of a DSN-MUI fatwa addressing digital akad and virtual assets, (2) the issuance of OJK guidelines on consumer protection and the legal validity of virtual transactions, (3) mandatory Sharia compliance audits and certification for metaverse-based financial platforms, and (4) the incorporation of *maqashid al-shariah* principles as foundational regulatory criteria. Such a roadmap aligns with academic recommendations emphasizing governance structures capable of safeguarding justice (*adl*) and wealth protection (*hifz al-mal*) within the broader landscape of digital financial innovation (Widjaja, 2024).

Technology and Security Infrastructure

The presence of significant cybersecurity threats and the sensitivity of client data in the digital realm necessitates a strong and secure technological infrastructure for the implementation of Islamic metaverse banking. This study suggests the application of licensed blockchain, which is a closed blockchain system that allows for greater control and access rights for participants compared to public blockchain. Because it can ensure Sharia compliance, system integrity, and institutional accountability, this concept is highly relevant for Islamic financial institutions. One important component in automating Sharia transactions in cyberspace, including *mudharabah*, *murabahah*, and *ijarah* contracts is the use of smart contracts. In order not to deviate from the principles of transactions, this smart contract must be specifically created and first checked by experts in Sharia law. Because smart contracts reduce costs and the possibility of human error, they are very successful in digital transactions. However, to ensure legal protection and legitimacy for the parties involved, supervision and legal standards are still necessary (Martinelli et al., 2024).

To ensure security, the blockchain system needs to be supported by a layered security architecture that protects data (encryption and key management), infrastructure (terminals, networks, and server nodes), and processes (operational standards, fraud detection, and implementation of smart contracts). This shows that, if designed with a comprehensive security architecture approach, blockchain technology can offer high-level encryption and threat detection against the risks of internal, external, and systemic errors. Furthermore, it is recommended for this system to use global security standards such as ISO/IEC 27000 and cybersecurity frameworks as published by NIST (National Institute of Standards & Technology) to ensure long-term compliance and security. This aims to guarantee the sustainability of Sharia-based digital financial services and strengthen the resilience of the system against cyberattacks. Sharia-compliant smart contracts, data encryption, permissioned blockchain, and standardized security governance can work together to make the Sharia financial system in the metaverse safe, effective, and compliant with Islamic law (Munawar et al., 2023).

CONCLUSION

This research concludes that the application of metaverse banking within the framework of the Islamic economic system is feasible, as long as it remains grounded in the fundamental principles of Islam in *muamalah* activities. The analysis results indicate that metaverse technology is essentially not in conflict with sharia teachings, but its implementation in the banking sector requires a careful approach, especially to avoid prohibited elements such as *riba*, *gharar*, and *maysir*.

The regulatory framework developed in this study can serve as a reference for regulatory authorities in formulating policies that support the advancement of financial technology while still maintaining the integrity of Sharia values. To ensure that technological developments can provide maximum benefits without deviating from Islamic principles, synergy is needed between supervisory institutions, players in the Sharia banking industry, and technology developers.

Theoretically, this article contributes to the development of digital Islamic economics by explaining how the principles of *fiqh muamalah* can be applied to financial transactions in the metaverse. It emphasizes that technological innovation in Islamic finance must remain consistent with Sharia requirements, including the clarity of contracts (akad), certainty of transaction objects, and the avoidance of *riba*, *gharar*, and *maysir* in digital asset usage.

Practically, this study provides important input for the future regulation of Sharia-compliant metaverse banking in Indonesia. It offers concrete policy recommendations: (1) DSN-MUI should issue a specific fatwa addressing digital contracts and virtual assets in metaverse-based services; (2) OJK should develop clear regulatory guidelines on consumer protection, Sharia compliance audits, and a regulatory sandbox for Sharia metaverse products; and (3) Islamic banks and Sharia fintech providers must ensure transparency and adherence to Sharia principles in their digital operations. With these measures, metaverse banking can grow innovatively while maintaining ethical and sustainable Islamic values.

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