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*Research Article*

# Sharia Based Approaches to Global Digital Governance: Ethical Implications of Blockchain and Cryptocurrency in Muslim Communities

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**Abstract:** The integration of blockchain technology and cryptocurrency within the framework of Islamic finance has raised significant ethical, legal, and regulatory concerns. Blockchain technology, known for its transparency, decentralization, and immutability, offers a promising solution for enhancing financial inclusion, transparency, and security in financial transactions. However, the use of cryptocurrencies, such as Bitcoin and Ethereum, introduces complexities due to their speculative nature, which may violate Sharia principles like gharar (excessive uncertainty) and riba (usury). This study explores the compatibility of blockchain and cryptocurrency with Sharia law, focusing on the challenges and opportunities that arise in the context of Islamic finance. The study analyzes existing fatwas (Islamic legal opinions), regulatory frameworks, and the application of Sharia principles to emerging financial technologies. It discusses the ethical dimensions of blockchain and cryptocurrency, such as their potential to promote fairness and transparency, while addressing concerns about privacy violations and the risks associated with unregulated trading. Furthermore, the research highlights the lack of standardized global regulations for cryptocurrency and blockchain, which complicates their adoption in Muslim-majority countries. The study also emphasizes the importance of establishing Sharia-compliant governance frameworks and regulatory standards to ensure the ethical use of these technologies. Finally, the study provides recommendations for further research in the intersection of Islamic law, digital finance, and global governance frameworks, focusing on the development of policies that ensure Sharia-compliant digital assets and technologies.

**Keywords:** Blockchain Technology; Cryptocurrency Regulation; Ethical Governance; Financial Inclusion; Sharia Law

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## 1. Introduction

Blockchain technology and cryptocurrencies have gained significant traction in recent years, revolutionizing financial transactions and digital asset management. Blockchain, a decentralized ledger system, ensures immutability of transaction records, transparency, and secure cryptographic frameworks that enhance security and efficiency in financial dealings (Shovkhalov & Idrisov, 2021). Cryptocurrencies, such as Bitcoin, are built on blockchain technology, offering a decentralized and innovative form of financial exchange that operates independently of traditional banking systems (Othman et al., 2022).

The integration of blockchain and cryptocurrency into Islamic finance presents unique ethical and legal challenges due to the foundational principles of Sharia law. Islamic finance operates under Sharia law, emphasizing transparency, fairness, and the prohibition of elements like riba (usury), gharar (uncertainty), and maysir (gambling) (Atiyah et al., 2024). These principles require a careful examination of whether cryptocurrencies align with Sharia law or violate its tenets. While blockchain's transparency and fraud reduction features may

appear compatible with Sharia values, the volatility and speculative nature of cryptocurrencies raise significant concerns (Khan & Rabbani, 2022).

The permissibility of cryptocurrencies in Muslim communities has been debated among scholars. Some argue that blockchain technology aligns with Sharia principles by promoting fairness and reducing fraud (Shovkhalov & Idrisov, 2021), while others emphasize the volatility of cryptocurrencies, their speculative nature, and the potential for misuse in activities prohibited by Sharia law (Khan & Rabbani, 2022). Thus, continuous legal and ethical appraisal is required to address emerging issues and establish a regulatory framework for Sharia-compliant digital assets (Bhatt & Sisodia, 2024).

The rapid evolution of blockchain technology and cryptocurrencies has introduced transformative changes to the financial landscape. Blockchain, a decentralized digital ledger system, offers secure, transparent, and immutable transaction records, with applications extending beyond cryptocurrency into areas like smart contracts and business process management (Gaurav et al., 2022; Gupta, 2020). Cryptocurrencies, such as Bitcoin and Ethereum, rely on blockchain technology to provide a decentralized method of secure digital payments without the need for traditional intermediaries (Chen et al., 2024; Hameed, 2019). However, the integration of these technologies within the framework of Sharia law raises important questions about their compliance with Islamic ethical and legal principles.

The aim of this study is to explore Sharia-based approaches to blockchain and cryptocurrency, with a focus on their role in global digital governance. This exploration involves understanding how these technologies can be aligned with Sharia principles and assessing their implications for digital governance on a global scale. As blockchain and cryptocurrency continue to evolve, it is essential to ensure that these innovations align with Islamic ethical and legal standards, which emphasize fairness, transparency, and the prohibition of elements such as usury (riba), excessive uncertainty (gharar), and gambling (maysir) (Alshater et al., 2022; Khan & Rabbani, 2022).

The significance of this study lies in the need to establish ethical frameworks and regulatory standards that ensure Sharia compliance in the rapidly developing realm of digital finance. As digital currencies and blockchain technology continue to gain prominence, ensuring their compatibility with Islamic finance principles is crucial for the global acceptance and integration of these innovations within Muslim-majority economies. Blockchain's decentralized nature, which enhances trust and transparency, may align with Sharia principles of fairness and accountability (Heo & Yi, 2023). However, ethical dilemmas arise, particularly concerning the volatility of cryptocurrencies and their potential for speculation, which may contravene the principles of Sharia law (Alam & Ali, 2020; H. M.-U. D. Qadri et al., 2023).

## 2. Literature Review

### Blockchain and Cryptocurrency Overview

Blockchain is a decentralized distributed ledger technology that securely stores digital data across a network of computers without the need for a central authority. This system ensures transparency, immutability, and security in transactions, making it highly reliable for secure record-keeping and data verification (A. Singh et al., 2022). Blockchain operates as a peer-to-peer network, allowing anyone within the network to view and modify the underlying code, which enhances decentralization and provides greater transparency in transaction processes (Ashurst & Tempesta, 2021; Hameed, 2019). As a result, blockchain is recognized for its potential to revolutionize various industries, including finance, healthcare, and governance (Pineda et al., 2024).

Cryptocurrency refers to a form of digital currency that leverages blockchain technology to facilitate secure, decentralized transactions. Among the most well-known cryptocurrencies are Bitcoin and Ethereum, which use blockchain to eliminate the need for traditional intermediaries such as banks. This decentralized system provides a secure method for making online payments without relying on centralized institutions (Tyagi et al., 2024). Cryptocurrencies offer the advantage of allowing peer-to-peer transactions, ensuring privacy, security, and reduced reliance on traditional financial institutions (Bejan et al., 2024; Mary Jeyanthi, 2020).

Blockchain technology has the potential to significantly impact global economies, offering both positive and negative outcomes. One of the most notable positive impacts is economic democratization. Blockchain can democratize finance by providing access to financial services without the need for traditional banking institutions, which could help

reduce economic inequality. Through decentralized platforms, blockchain allows individuals and businesses to engage in financial activities without intermediaries, thereby promoting greater inclusivity (Vishvas & Kumari, 2024). Moreover, blockchain enhances efficiency across various sectors, such as finance, healthcare, and supply chain management. Its transparent and immutable nature ensures that all transactions are traceable and verifiable, which is particularly crucial in industries where transparency is vital (Gupta, 2020; A. Singh et al., 2022). Additionally, by removing intermediaries, blockchain can reduce operational costs and improve transaction speeds, making it particularly beneficial for industries with complex transactional processes, such as cross-border payments (Ahmed & Kumar, 2019; Tyagi et al., 2024). Blockchain also fosters innovation by enabling the creation of new business models and platforms. Its ability to provide secure, transparent, and efficient systems presents opportunities for businesses to develop novel solutions that could transform industries (Ashurst & Tempesta, 2021; Manski, 2017).

On the other hand, there are several negative impacts associated with blockchain technology, particularly cryptocurrencies. One major concern is the high energy consumption required for cryptocurrency mining, especially Bitcoin, which raises environmental sustainability issues (Hameed, 2019; A. Singh et al., 2022). Another challenge is the lack of standardized regulations for cryptocurrencies, which introduces risks and uncertainties for global economies. Governments and regulatory bodies are still working to establish frameworks to address the decentralized nature of cryptocurrencies, which complicates their integration into traditional financial systems (Bejan et al., 2024; Bhutta et al., 2021). Finally, while blockchain can democratize finance, its benefits may not be equally accessible to all individuals. Inequality in access to technology and digital infrastructure could exacerbate existing economic disparities, particularly in underserved regions (Pineda et al., 2024; Vishvas & Kumari, 2024).

**Sharia Law and Digital Governance in Financial Systems and Technology**

The integration of Sharia law into financial systems and technology, especially within the context of Islamic finance, has garnered significant attention as digital technologies like FinTech, blockchain, and artificial intelligence (AI) continue to evolve. FinTech innovations, such as digital Islamic banks, mobile payments, halal crowdfunding, and Sharia-compliant robo-advisors, have expanded access to financial services, promoting financial inclusion and transparency (Aziz, 2020; Yuspin & Fauzie, 2023). Blockchain technology, particularly in cryptocurrencies, holds promise for enhancing security and Sharia compliance in financial transactions; however, concerns remain regarding the speculative nature of cryptocurrencies and their alignment with Islamic prohibitions on riba (usury), gharar (uncertainty), and maysir (gambling) (Chowdhury et al., 2023; Firdaus et al., 2022). AI also presents opportunities to improve operational efficiency in Islamic finance, but its implementation must align with Sharia principles, particularly in areas like credit scoring and investment advisory roles (H. M.-U.-D. Qadri & Bhatti, 2024; Yuspin & Fauzie, 2023).

Despite these advancements, integrating FinTech with Islamic finance faces several challenges, such as regulatory fragmentation. The lack of a unified Sharia standard creates uncertainties and compliance issues, as different regions interpret Sharia law in varying ways, complicating the global implementation of Sharia-compliant digital assets (Aziz, 2020; Firdaus et al., 2022). Effective Sharia governance frameworks, including Sharia Advisory Boards and regular audits, are critical to mitigating risks and ensuring compliance, which helps build consumer trust and stabilize the industry (Abdullah et al., 2024; Chowdhury et al., 2023). Legal adaptation and innovation are necessary to address evolving issues in the digital economy, such as consumer protection, market volatility, and Sharia non-compliance risks (Aziz, 2020; H. M.-U.-D. Qadri & Bhatti, 2024).

The integration of Islamic ethics into digital contexts also raises concerns regarding ethical decision-making, fairness, transparency, and social responsibility. Managing digital risks, such as those associated with smart contracts and cloud computing, requires robust Sharia-compliant risk management strategies to ensure ethical operations (Alsaghir, 2023; Firdaus et al., 2022). Future directions for Sharia-compliant financial solutions should focus on developing clear public policies and regulatory frameworks to ensure emerging technologies like cryptocurrency, AI, and blockchain align with Islamic principles. Additionally, expanding financial inclusion through Sharia-compliant FinTech solutions can help empower small and medium enterprises (SMEs) and underserved populations (Aziz, 2020; Yuspin & Fauzie, 2023). Moreover, enhancing education and training for Islamic

finance practitioners and the public is essential for the successful adoption of these innovations (Abdullah et al., 2024; H. M.-U.-D. Qadri & Bhatti, 2024).

### Ethical Concerns of Blockchain and Cryptocurrency Transparency and Privacy

Blockchain technology is praised for its transparency, which fosters trust and accountability across various sectors, including financial transactions and supply chains (Fries & Greiner, 2024; B. Singh et al., 2024). This transparency allows transactions to be traceable, immutable, and verifiable, reducing fraud and enhancing public trust. However, balancing transparency with privacy concerns is critical. Excessive visibility into transaction details can lead to privacy violations, particularly when personal data is involved. Therefore, while transparency is a key advantage, it must be carefully managed to protect individual privacy rights and prevent unauthorized access to sensitive information (Seele, 2018).

One of the main ethical benefits of blockchain is its potential to promote fairness, especially in financial transactions and supply chain management. By ensuring that transaction records are immutable and visible in real-time, blockchain can reduce fraud and manipulation, promoting fairness and integrity (Fries & Greiner, 2024). However, fairness in blockchain is not solely dependent on transparency. It also requires legal compliance and ethical governance to ensure that blockchain applications do not perpetuate unfair practices. Effective regulatory frameworks are needed to prevent abuse and ensure that all stakeholders benefit equitably from blockchain technology (Heckler & Kim, 2022; B. Singh et al., 2024).

In the context of Islamic finance, blockchain can help address financial risks and inefficiencies while ensuring compliance with Sharia law, particularly through smart contracts that automate and secure transactions (H. M.-U. D. Qadri et al., 2023; B. Singh et al., 2024). Blockchain's features, such as transparency and fairness, align well with Sharia principles, helping to prevent fraud and ensuring that processes comply with ethical standards. However, the speculative nature of cryptocurrencies and the potential for activities prohibited under Sharia law, such as gambling (maysir) and usury (riba), pose significant challenges. Regulatory frameworks that ensure compliance with Sharia principles are necessary to mitigate these concerns and ensure that blockchain and cryptocurrency technologies are adopted ethically within Muslim communities (Bagus & de la Horra, 2021; Seele, 2018).

## 3. Materials and Method

This research uses an analytical approach to explore the compatibility of blockchain technology and cryptocurrency with Sharia law, focusing on fatwas, international regulatory frameworks, and Islamic jurisprudence. It examines how blockchain's transparency, fairness, and decentralization align with key Sharia principles like the prohibition of riba, gharar, and maysir. Data will be gathered from fatwas, regulatory documents, and case studies to analyze the ethical and legal implications of blockchain in Islamic finance. The study will compare Islamic law with global regulatory practices, focusing on Sharia compliance, and evaluate the effectiveness of current frameworks in ensuring ethical adoption of blockchain and cryptocurrency. This approach aims to provide a deeper understanding of how these technologies can be ethically integrated into Muslim communities within the digital economy.

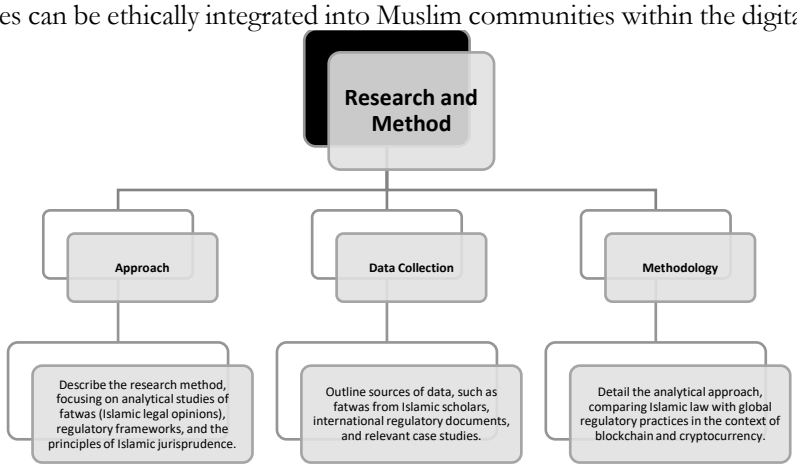


**Figure 1.** The structure of the Research Methodology flowchart.

### Approach

This research utilizes an analytical approach to examine the compatibility of blockchain technology and cryptocurrency with Sharia law. The method focuses on studying fatwas (Islamic legal opinions), international regulatory frameworks, and the core principles of Islamic jurisprudence. Specifically, the study aims to analyze how blockchain's transparency, fairness, and decentralized nature align with Sharia principles such as the prohibition of riba (usury), gharar (excessive uncertainty), and maysir (gambling). The research will also explore the application of Sharia governance structures in ensuring compliance with these principles in the context of blockchain and cryptocurrency technologies. By synthesizing these sources, the study seeks to provide a comprehensive analysis of blockchain and cryptocurrency's ethical and legal implications in the realm of Islamic finance.

### Data Collection

The primary sources of data for this study include fatwas from Islamic scholars, international regulatory documents, and relevant case studies. Fatwas will be used to gather scholarly opinions on the permissibility of blockchain and cryptocurrency within the framework of Sharia law. These fatwas will help identify areas of consensus and disagreement among scholars regarding the application of blockchain and cryptocurrency in financial transactions. In addition, regulatory frameworks from various jurisdictions will be examined to compare how global legal systems address the challenges posed by blockchain technology, focusing on issues such as privacy, security, and fairness. Relevant case studies, including implementations of blockchain in Islamic finance, will also be reviewed to assess practical applications and regulatory challenges.

### Methodology

The analytical approach for this research involves comparing Islamic law with global regulatory practices in the context of blockchain and cryptocurrency. This comparative analysis will explore how Islamic principles-such as ensuring transparency, fairness, and the avoidance of unethical practices like riba and gharar-are reflected in the operation of blockchain systems. Furthermore, the study will assess the effectiveness of current regulatory frameworks in ensuring Sharia compliance while allowing the adoption of blockchain technology. This method aims to provide a nuanced understanding of the ethical and legal implications of blockchain and cryptocurrency in Muslim communities, with a focus on Sharia-compliant solutions in the evolving digital economy.

## 4. Results and Discussion

Blockchain technology offers significant potential for Sharia compliance, particularly in terms of transparency, fairness, and security, aligning well with Islamic finance principles. However, the use of cryptocurrencies remains contentious due to concerns about their volatility (gharar) and speculative nature, which conflict with Sharia's emphasis on risk mitigation. The lack of standardized global regulations for blockchain and cryptocurrency creates uncertainty, especially in Muslim-majority countries, where Sharia compliance is essential. To address these challenges, effective Sharia governance frameworks, including Sharia Advisory Boards and regular audits, are crucial to ensure compliance and build trust. While blockchain presents opportunities for financial inclusion, particularly through its decentralization and transparency, cryptocurrencies require more careful scrutiny and a robust regulatory framework to ensure they align with Sharia law and ethical financial practices.

## Results

The study's findings reveal that blockchain technology holds substantial promise for aligning with Sharia principles, especially in terms of transparency, fairness, and security. Blockchain's decentralized nature and immutable transaction records can support the core values of Islamic finance, which emphasize transparency and the reduction of fraud. These features make blockchain an ideal tool for ensuring that financial transactions adhere to ethical standards. However, while blockchain itself aligns with Sharia principles, the use of cryptocurrencies, particularly in their volatile and speculative nature, raises significant concerns. Cryptocurrencies like Bitcoin, with their high volatility, create an environment of uncertainty (gharar), which contradicts Islamic finance's emphasis on risk mitigation. Therefore, while blockchain technology is promising for Sharia compliance, the broader application of cryptocurrency faces challenges, particularly in regard to its speculative characteristics.

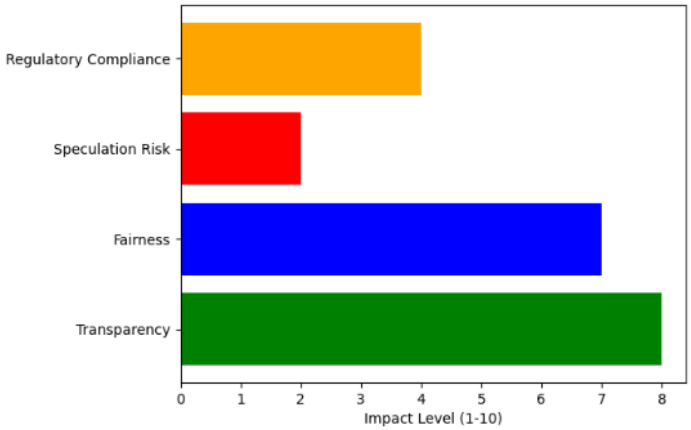


**Figure 2.** Perceived Impact of Blockchain and Cryptocurrency on Sharia Compliance.

The bar chart illustrates the perceived strengths and weaknesses of blockchain and cryptocurrency in relation to Sharia compliance, with categories including transparency, fairness, speculation risk, and regulatory compliance. Transparency and fairness are seen positively, as blockchain's features align well with the principles of Islamic finance. However, speculation risk is a significant concern due to the volatility of cryptocurrencies, which conflicts with Islamic finance's emphasis on risk mitigation. Regulatory compliance is viewed moderately, reflecting the challenges of establishing consistent regulations that ensure Sharia compliance across different regions.

In terms of regulatory frameworks, the study highlights the lack of unified global regulations for cryptocurrency and blockchain technology. This regulatory fragmentation creates uncertainty, especially in Muslim-majority countries where Sharia law needs to be strictly adhered to. Various countries have started developing their own frameworks for integrating blockchain and cryptocurrencies, but these are often inconsistent, leading to confusion and potential non-compliance with Sharia principles. The role of Sharia Advisory Boards and continuous auditing is essential to mitigate these risks and ensure compliance. Therefore, a clear, internationally recognized regulatory framework is necessary to address these challenges and ensure that blockchain and cryptocurrency technologies are adopted in a way that is consistent with Sharia law.

## Discussion

The integration of blockchain and cryptocurrency within the framework of Islamic finance requires careful attention to Sharia compliance. While blockchain offers transparency, immutability, and decentralization-core values in Islamic finance-it is the use of cryptocurrencies that remains contentious. The speculative nature of many cryptocurrencies, particularly Bitcoin, which experiences significant price fluctuations, poses a challenge in terms of Sharia compliance. These volatility issues are viewed as excessive uncertainty (gharar), a core concern in Islamic financial transactions. In addition, the potential for cryptocurrencies to facilitate activities like gambling (maysir) further complicates their acceptance within Muslim communities. As such, while blockchain technology aligns well

with the ethical principles of Islamic finance, cryptocurrencies require more careful scrutiny and regulatory oversight to ensure compliance with Sharia law.

The regulatory environment for blockchain and cryptocurrency remains fragmented, both globally and within Muslim-majority countries. Different countries have adopted varying degrees of regulation, with some more focused on the potential of these technologies and others cautious about their integration into traditional financial systems. This lack of uniformity presents challenges, especially in Muslim-majority countries, where the application of Sharia law in financial systems is paramount. The absence of global regulatory coherence complicates efforts to create a standardized approach that aligns with Sharia principles. To resolve these challenges, international collaboration is essential to develop a universal regulatory framework that addresses the unique concerns posed by blockchain and cryptocurrency while ensuring compliance with Islamic finance standards.

In addition, the role of Sharia governance frameworks, such as Sharia Advisory Boards and regular audits, is critical to maintaining the integrity of financial products based on blockchain technology. These governance structures help ensure that all transactions and processes comply with Islamic ethics, particularly in terms of transparency, fairness, and the avoidance of fraud. Sharia governance also helps mitigate the risks of non-compliance, which is especially important when integrating emerging technologies into traditional financial systems. By establishing robust governance frameworks, Muslim-majority countries can better navigate the complexities of adopting blockchain and cryptocurrency while remaining faithful to Sharia principles. Thus, while blockchain and cryptocurrency present new opportunities for financial inclusion and innovation, their ethical and legal integration into Islamic finance requires continued regulatory development and oversight.

## 5. Comparison

The Sharia-based adaptive approach to digital governance emphasizes the importance of aligning emerging technologies like blockchain and cryptocurrency with Islamic ethical and legal principles. This approach advocates for the careful evaluation of new technologies in their specific contexts to determine their compliance with Sharia law. Proponents of this adaptive approach argue that blockchain's transparency, decentralization, and immutability can be leveraged to enhance fairness and transparency in financial transactions, thus making it a promising tool for Sharia-compliant financial systems. This view is open to the evolution of Islamic finance and recognizes the need for continuous innovation, especially in terms of integrating digital technologies into financial systems while maintaining ethical standards.

In contrast, conservative viewpoints tend to reject digital innovations such as blockchain and cryptocurrency without conducting a thorough context-specific analysis. These viewpoints often focus on the speculative and unregulated nature of cryptocurrencies, which can be seen as incompatible with Sharia principles, particularly due to the risks of gharar (excessive uncertainty) and riba (usury). Conservative critics of blockchain and cryptocurrency argue that these technologies introduce financial systems that could undermine traditional Islamic financial practices. As a result, they advocate for a more cautious approach, one that may resist adopting such technologies until their long-term impact on Sharia compliance is more clearly understood.

Globally, the governance of blockchain and cryptocurrency is varied, with different countries adopting different regulatory approaches. In many developed nations, blockchain and cryptocurrency are seen as tools for financial innovation and are integrated into their financial systems with a focus on efficiency and economic growth. These countries have implemented regulatory frameworks that aim to balance innovation with consumer protection, focusing on addressing risks such as money laundering and fraud, while fostering technological advancement. However, in these global frameworks, the Sharia compliance aspect is often not considered, and thus, cryptocurrencies may be regulated primarily for their economic and financial implications rather than for their ethical alignment with Islamic law.

Sharia-compliant approaches to blockchain and cryptocurrency, however, consider a unique set of ethical principles, focusing on transparency, fairness, and the prohibition of activities like gambling and usury. These approaches are often more conservative in their regulatory stance, with a specific emphasis on ensuring that blockchain technology and cryptocurrencies comply with Sharia law. This contrast can lead to divergences in the adoption of blockchain and cryptocurrency between Muslim-majority countries and non-Muslim countries. While some Muslim-majority countries may develop specific regulatory frameworks to align these technologies with Islamic finance principles, others may resist or

delay their integration until a clearer consensus on their Sharia compliance is reached. This divergence highlights the need for a more universally accepted approach to regulating blockchain and cryptocurrency that can address both the global demand for innovation and the ethical considerations specific to Sharia-compliant financial systems.

## 6. Conclusion

The study finds that blockchain technology presents significant potential for aligning with Sharia law, particularly in its transparency, fairness, and decentralization. These features are well-suited to enhance transparency and reduce fraud, both of which are central to Islamic finance principles. However, the use of cryptocurrencies, which often exhibit high volatility and speculative behaviors, raises concerns regarding Sharia compliance, particularly due to the risks of excessive uncertainty (gharar) and the potential for unethical financial practices such as gambling (maysir). While blockchain can provide the foundation for Sharia-compliant financial systems, cryptocurrencies require more careful scrutiny to ensure they do not violate core Islamic principles.

In terms of regulatory frameworks, the study highlights the lack of global consistency in regulating blockchain and cryptocurrency technologies. This regulatory fragmentation creates challenges, especially in Muslim-majority countries where adherence to Sharia law is essential. The development of clear and unified regulations is necessary to ensure that blockchain and cryptocurrency technologies are adopted in a way that aligns with both Sharia law and global governance standards.

To develop Sharia-compliant frameworks for blockchain and cryptocurrency, it is recommended that Muslim-majority countries establish specific regulations that address the unique challenges posed by these technologies. These regulations should prioritize Sharia principles such as fairness, transparency, and the prohibition of unethical practices like riba and gharar. Additionally, the creation of comprehensive Sharia governance frameworks, including Sharia Advisory Boards and regular audits, will be critical to ensuring compliance and enhancing consumer trust. A balanced approach is necessary, one that embraces technological innovation while safeguarding the ethical standards of Islamic finance.

Future research in the intersection of Islamic law and digital governance should focus on the development of detailed regulatory frameworks that harmonize Sharia compliance with the growing demand for digital financial technologies. Research should explore the implications of new technologies like artificial intelligence (AI) and blockchain for Islamic finance, particularly in terms of their alignment with ethical principles. Furthermore, studies should address the impact of blockchain and cryptocurrency on financial inclusion in Muslim communities, investigating whether these technologies can help bridge the financial gap for underserved populations while maintaining compliance with Sharia law. Finally, examining how global digital governance frameworks can incorporate Sharia-compliant principles will be crucial in facilitating the adoption of these technologies across Muslim-majority countries while addressing global regulatory standards.

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