

Crypto Currency Investment from an Islamic Law Perspective: An Overview of Guidelines and Considerations

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Abstract: This study seeks to offer an in-depth examination of cryptocurrency investments through the lens of Islamic law, with particular emphasis on assessing the Shariah compatibility of widely used digital assets such as Bitcoin and Ethereum. The novelty of this research lies in its systematic exploration of key issues such as the speculative nature, intrinsic value, and potential for financial harm (gharar) associated with cryptocurrencies. This study adopts a qualitative approach, drawing upon primary sources of Islamic jurisprudence namely the Quran, Hadith, and classical scholarly interpretations while also incorporating contemporary fatwas, insights from prominent Islamic finance scholars, and expert interviews to inform the analysis. The results highlight divergent viewpoints on the permissibility of cryptocurrency investments, with some scholars asserting their compliance under specific conditions, while others deem them non-compliant due to risks of speculation and uncertainty. The study concludes by proposing a set of actionable guidelines for Muslim investors, underscoring the significance of grasping the intricacies of Shariah principles in cryptocurrency investments and highlighting the necessity for continuous scholarly engagement in this evolving domain.

Introduction

Investments are typically undertaken with the objective of generating profit through subsequent resale. Recently, crypto-currencies have emerged as a new electronic trade payment mechanism that has gained widespread acceptance, significantly impacting emerging economies and the global market. Virtual currencies present a range of appealing characteristics that attract an increasingly diverse user base, with individuals and entities employing the technology to serve a variety of specific needs (Shah et al., 2023).

The emergence of cryptocurrencies has transformed the financial landscape, introducing novel opportunities for investment and driving significant advancements in financial innovation. Crypto-currencies, such as Bitcoin, Ethereum, and others, operate on decentralized networks using blockchain technology, providing a high degree of security, transparency, and accessibility (Heckler & Kim, 2020).

As these digital assets achieve broader mainstream acceptance, they continue to attract the interest of investors worldwide (Sun et al., 2022). However, the rapid proliferation of crypto-currencies also raises complex questions regarding their ethical and legal status, particularly within the context of Islamic finance, which is governed by Shariah law to ensure economic activities align with Islamic ethical principles (Sholeh et al., 2022).

The inherent characteristics of cryptocurrencies present substantial challenges to their acceptance within the framework of Islamic finance. One of the primary concerns is their speculative aspect, which can be equated to gambling (*maysir*), prohibited in Islam. Bitcoin and similar crypto-currencies are highly volatile, with their value fluctuating widely based on market demand and investor sentiment rather than underlying tangible assets. This volatility can lead to excessive uncertainty (*gharar*), another concept strictly forbidden in Islamic finance. Additionally, traditional Islamic finance prohibits earning profit from interest-bearing loans (Yousaf, 2022). While crypto-currencies themselves do not inherently generate interest, many associated financial products do. For example, cryptocurrency lending platforms frequently provide returns on deposited digital assets, resembling the interest-based practices found in conventional banking (Ahmed, 2021).

Islamic scholars continue to debate the permissibility of participating in such platforms, particularly in light of the prohibition of *riba* under Shariah principles. This prohibition aims to prevent exploitation and ensure fairness in financial transactions. The concept of asset-backed transactions is another crucial element in Islamic finance. Islamic law mandates that all financial transactions should be backed by tangible assets or services, ensuring a link between financial and real economic activity (Ajouz et al., 2020). Crypto currencies, by their decentralized nature, lack this backing, raising concerns about their compliance with Islamic law. The lack of intrinsic value and the heavy reliance on market speculation further complicate the acceptance of these assets within Islamic finance (Davies & Ferris, 2022).

Several prior studies are relevant to the present research. Even though there is a significant gap in understanding the compatibility of crypto-currencies with Islamic finance principles. The current literature predominantly focuses on the technological and economic aspects of crypto-currencies, with limited exploration of their ethical and legal implications within the Islamic financial framework. Regarding crypto-currency entity, it is a digital or virtual currency that uses cryptographic technology to ensure secure financial transactions, control the creation of new units, and verify asset transfers. In contrast to fiat currencies issued by central banks, cryptocurrencies function on decentralized networks powered by blockchain technology, which maintains a distributed ledger of transactions, ensuring security, immutability, and transparency (Zohar, 2017).

Accordingly, it constitutes a digital asset intended to serve as a medium of exchange, with records of individual coin ownership maintained within a ledger housed in a computerized database. This ledger uses strong cryptography to secure transaction records, control the creation of additional coins, and verify the transfer of coin ownership. The most notable aspect of crypto-currencies is their decentralized nature, typically maintained through

distributed ledger technology (DLT) such as blockchain (Maiyya et al., 2018). Smith et al. (2018) note that the backbone of crypto-currency is blockchain technology which is a decentralized ledger that records all transactions across a network of computers. Each block in the chain contains a list of transactions, and once a block is completed, it is added to the chain, creating a chronological history of transactions that is secure and immutable. Cryptographic algorithms ensure that transactions are secure and that the ledger is transparent and resistant to tampering. The decentralized architecture of blockchain technology obviates the need for a central authority, thereby mitigating the risk of fraud and fostering greater trust among users (Smith & Kumar, 2018).

In their study, Shahren Shah et al. (2023) noted that Bitcoin the first and most widely recognized cryptocurrency was introduced in 2009 by an anonymous individual or group operating under the pseudonym Satoshi Nakamoto. It introduced the concept of a decentralized digital currency and remains the most widely recognized and valuable crypto-currency. Following Bitcoin's success, numerous alternative crypto-currencies (altcoins) have emerged, each with unique features and use cases. Notable examples include Ethereum, which pioneered the use of smart contracts, and Ripple, which is designed to streamline cross-border payment processes (Shah et al., 2023).

According to Tao (2022), cryptocurrencies facilitate direct peer-to-peer transactions, eliminating the need for intermediaries such as banks. This reduces transaction costs and increases the speed of transactions, especially for international transfers. While transactions are transparent and traceable on the blockchain, users' identities can remain anonymous. This aspect of crypto-currencies has raised concerns about their potential use for illegal activities, though it also appeals to those seeking greater privacy in their financial dealings (Tao, 2022). While Shovkhalov et al. (2022) emphasize that crypto-currencies are known for their high volatility, with prices subject to rapid and significant fluctuations. This volatility is driven by various factors, including market speculation, regulatory news, technological advancements, and macroeconomic trends. While some view crypto-currencies as a store of value or a hedge against inflation, others engage in speculative trading, seeking to profit from price movements. This speculative nature has resulted in both considerable gains and notable losses for investors (Shovkhalov & Abdulmuslimov, 2022).

By contrast, governments and regulatory bodies across the globe continue to grapple with the challenge of effectively regulating cryptocurrencies. Regulatory approaches vary, with some countries embracing and fostering crypto-currency innovation, while others impose strict regulations or outright bans. Regulatory uncertainty poses challenges for the widespread adoption of crypto-currencies. Issues such as anti-money laundering (AML), combating the financing of terrorism (CFT), and tax compliance represent critical areas where robust and clearly defined regulations are essential (Hidayah et al., 2021; Wang & Zhu, 2021).

Nevertheless, the future of cryptocurrency is characterized by continuous innovation and growing adoption. Developments in blockchain technology, such as scalability solutions and interoperability, are enhancing

the functionality and potential use cases of crypto-currencies. The integration of crypto-currencies with traditional financial systems is likely to continue, with increasing interest from institutional investors, financial institutions, and technology companies (Brühl, 2017). Crypto-currency represents a transformative development in the financial world, characterized by decentralization, security, and the potential for significant innovation. However, it also poses challenges, particularly in terms of volatility, regulatory compliance, and ethical considerations (Henshaw, 2022). Grasping these dynamics is essential for evaluating the future impact and potential role of cryptocurrencies within the global financial landscape.

This research aims to examine the compatibility of cryptocurrencies with the principles of Islamic finance. Specifically, the study examines the ethical and legal challenges associated with crypto-currency investments under Islamic law, addressing issues such as speculation (maysir), excessive uncertainty (gharar), and the prohibition of interest (riba). It evaluates the diverse perspectives of Islamic scholars on the permissibility of cryptocurrencies, recognizing the varying interpretations and contemporary fatwas that contribute to the ongoing debate. Furthermore, the research proposes a framework for developing Shariah-compliant guidelines for crypto-currency investments, ensuring these digital assets can be integrated into Islamic finance while adhering to its core principles (Azmat & Subhan, 2021). In addition, the study evaluates the potential benefits of cryptocurrencies, such as fostering financial inclusion and driving technological advancement, and explores how these advantages might be harnessed within the framework of Islamic finance to enhance economic participation and promote growth, particularly in underserved regions.

Method

The study adopted a systematic approach for selecting and analyzing sources, utilizing key methodological tools. A comprehensive literature review was conducted to gather scholarly articles, books, and credible online resources on crypto-currency and Islamic finance, focusing on both theoretical and empirical research concerning their ethical, legal, and financial aspects. Primary sources, including the Quran, Hadith, and classical jurisprudence texts, were examined interpretively to derive relevant Shariah principles for modern financial practices, particularly crypto-currency investments. Semi-structured interviews with Islamic scholars, financial experts, and cryptocurrency specialists will provide primary data, offering current perspectives and insights into the topic. Additionally, content analysis of contemporary fatwas issued by Islamic scholars and financial institutions was performed to identify common themes and differing viewpoints on the permissibility of such investments. The study applied qualitative research methods to gain in-depth insights, analyzing both primary texts and fatwas to uncover patterns and principles. This multi-faceted approach enabled a comprehensive and nuanced understanding of the intersection between cryptocurrency investments and Islamic law.

Results and Discussion

The Challenges and Future of Crypto Currencies in Islamic Finance

Islamic finance operates under the framework of Shariah law, which establishes stringent guidelines to ensure that all economic activities adhere to Islamic ethical principles. These principles include the prohibition of interest (*Riba*), excessive uncertainty (*Gharar*), and gambling (*Maysir*) (Arifin, 2020; Lusiana et al., 2022; Razak et al., 2025). Additionally, Shariah law requires that financial transactions be backed by tangible assets or services, ensuring economic activities are rooted in real-world value. Cryptocurrencies, which operate on decentralized networks and are frequently characterized by significant price volatility and speculative trading, pose challenges to these established principles (Abedifar, 2023).

The nature of cryptocurrencies may give rise to excessive uncertainty (*gharar*) and speculative, gambling-like behavior (*maysir*), both of which are prohibited under Shariah law. Additionally, since crypto-currencies are digital and often lack intrinsic value or tangible backing, they may not meet the Shariah requirement for asset-backed transactions. This creates a fundamental conflict between the innovative characteristics of crypto-currencies and the established principles of Islamic finance (Hasan et al., 2022).

As cryptocurrencies disrupt traditional financial systems, they necessitate a re-examination of how Islamic principles can be effectively applied within the evolving digital landscape. This requires scholars and financial institutions to develop new frameworks and guidelines to ensure crypto-currency investments comply with Shariah law. Addressing these challenges involves creating clear regulatory guidelines, promoting financial literacy among Muslim investors, and exploring sustainable and ethical uses of crypto-currency technologies. The overarching objective is to integrate the advantages of cryptocurrencies within the ethical framework of Islamic finance, thereby ensuring that emerging financial innovations advance social justice, encourage risk-sharing, and uphold ethical investment practices (Azmat & Subhan, 2021).

The future of cryptocurrencies within Islamic finance depends on the ability to reconcile the innovative characteristics of digital assets with the ethical principles and requirements of Islamic law. Ongoing research and dialogue among scholars, financial institutions, and policymakers are essential. This collaborative effort is crucial in addressing the ethical and legal concerns associated with crypto-currencies, such as their nature, lack of intrinsic value, and potential for misuse (Heckler & Kim, 2020). Developing robust frameworks and guidelines that align with Islamic principles will allow the Muslim community to benefit from advancements in financial technology while adhering to their religious values. These frameworks should include clear regulatory guidelines to mitigate risks and ensure transparency and fairness in transactions. For instance, ensuring that crypto-currencies are backed by tangible assets or services can help align them with the asset-backing requirement of Shariah law (Yousaf, 2022). Moreover, fostering sustainable and ethical practices—such as exploring environmentally friendly

alternatives to the energy-intensive process of cryptocurrency mining is essential.

The Issue of Riba in Crypto-currencies

Riba, or interest, is fundamentally prohibited in Islamic finance, which aims to promote fairness and prevent exploitation in financial transactions. Traditional Islamic finance prohibits earning profit from interest-bearing loans, emphasizing that money should not generate profit by itself without engaging in productive economic activity (Kato, 2022). This principle aims to foster an equitable financial system where wealth is generated through legitimate trade and investment rather than through interest, which can lead to economic injustice and social inequality. Although cryptocurrencies such as Bitcoin and Ethereum do not inherently involve interest, numerous related financial products and services do (Shovkhalov & Abdulmuslimov, 2022).

The financial ecosystem surrounding cryptocurrencies encompasses a range of products and services that involve interest, thereby raising significant concerns from the perspective of Islamic finance. One prominent example is crypto-currency lending platforms, which allow users to deposit their cryptocurrencies and earn interest on these deposits, similar to traditional banks' interest-bearing savings accounts. This practice directly conflicts with the prohibition of riba in Islamic finance, as earning profit through interest is considered exploitative and unjust. Additionally, the concept of staking within proof-of-stake (PoS) blockchain networks where cryptocurrency holders receive rewards for participating in network validation may be viewed as analogous to earning interest, thereby raising potential concerns under Islamic finance principles (Shah et al., 2023).

Assessing the Shariah compliance of cryptocurrency-related financial products necessitates a nuanced and context-sensitive approach. Scholars and financial institutions must assess whether these products adhere to the ethical principles of Islamic finance. While crypto-currency itself may be permissible if used for productive and ethical purposes, products that involve earning profit through interest-like mechanisms may not be, necessitating a careful analysis of these financial products' structures and purposes (Belke & Beretta, 2020). To reconcile the use of crypto-currencies with Islamic finance principles, alternative models that do not involve interest need to be explored. Islamic finance offers several profit-and-loss sharing mechanisms, such as *mudarabah* (profit-sharing) and *musharakah* (joint venture), which can be adapted to the crypto-currency space. For example, instead of interest-bearing loans, crypto-currency investment could be structured as a profit-sharing agreement where returns are based on the actual performance of the investment, thereby ensuring consistency with Shariah principles (Kato, 2022).

Here is an Interview with Prof. Dr. Rohimin, M.Ag, Chairman of the MUI (Indonesian Ulema Council) of Bengkulu Province, Indonesia, Regarding the View on Cryptocurrency Investments like Bitcoin and Ethereum from an Islamic Law Perspective: *“Cryptocurrency investments pose distinct challenges when examined through the lens of Islamic finance. The primary concerns are gharar and maysir, as cryptocurrencies are highly speculative and volatile, which leads to uncertainty. According to Islamic law, investments that*

involve significant uncertainty or gambling are forbidden. While cryptocurrencies such as Bitcoin and Ethereum are not inherently linked to interest (riba), their speculative nature may render them non-compliant with Shariah principles, particularly when employed for short-term trading purposes.”

To address the issue of riba in crypto-currencies, regulatory frameworks that enforce Shariah compliance are essential. These frameworks should establish clear guidelines regarding permissible financial products and practices within the cryptocurrency sector. (Widjaja et al., 2023). Additionally, enhancing financial literacy among Muslim investors is crucial and educating investors about the risks and ethical considerations of crypto-currency investments can help them make informed decisions that align with Shariah principles (Ahmed, 2021).

Contemporary Fatwas on Crypto-currencies

Contemporary fatwas on cryptocurrencies reflect a broad spectrum of opinions, underscoring the evolving nature of this financial innovation. Some Islamic scholars argue that crypto-currencies can be permissible if used correctly and with caution, highlighting the potential benefits of financial inclusion and technological advancement that crypto-currencies can offer. For instance, crypto-currencies can provide financial services to unbanked populations, particularly in regions with limited access to traditional banking infrastructure. The decentralized nature of crypto-currencies allows for peer-to-peer transactions, enhancing financial inclusion by providing access to financial services for individuals who are otherwise excluded from the formal financial system. Furthermore, the underlying blockchain technology of cryptocurrencies promotes transparency and security, aligning with the principles of Islamic finance, which emphasize honesty, integrity, and accountability (Hidayah et al., 2022).

However, cryptocurrencies may not fully comply with Shariah principles when their use entails excessive uncertainty (*gharar*) or speculative, gambling-like behavior (*maysir*). This aspect of crypto-currencies can lead to *Gharar* (excessive uncertainty) and *Maysir* (gambling), both of which are prohibited under Islamic law. Additionally, the lack of intrinsic value and the reliance on market speculation further complicate their acceptance in Islamic finance. On the other hand, some scholars highlight the need for regulatory frameworks and ethical guidelines, *as the nature of crypto-currencies* and the potential for their misuse in illegal activities pose significant risks (Hasan et al., 2022). The discourse surrounding the Islamic legal perspective on cryptocurrency investment is characterized by a rich diversity of scholarly opinions, shaped by varying methodological approaches, regional contexts, and epistemological philosophies. This analysis reveals a spectrum of views ranging from permissiveness to strict prohibition, reflecting broader concerns surrounding Shariah compliance and financial ethics.

Prominent figures, including Mufti Muhammad Abu Bakar and Malaysia's Shariah Advisory Council, advocate for a nuanced acceptance of cryptocurrencies, provided their use aligns with the objectives of *maqasid al-Shariah*, which prioritize social welfare, financial inclusion, and transparency

in financial transactions. They assert that blockchain technology can enhance financial efficiencies and reduce uncertainty by providing traceability and transparency (Rizvi & Ali, 2022). These perspectives suggest that cryptocurrencies can facilitate economic participation and empower unbanked communities, thereby fulfilling the higher goals of Islamic law, such as promoting social justice and economic equity (Saied et al., 2024). Conversely, conservative voices, including Egypt's Grand Mufti Shawki Allam and Indonesia's Ulema Council, argue against the permissibility of cryptocurrencies. They highlight significant concerns regarding the perceived lack of intrinsic value (*Thaman Haqiqi*), the speculative nature akin to gambling (*maysir*), and the absence of adequate state regulation, which undermines established Shariah principles of wealth preservation (*hifz al-mal*) and contractual clarity (Said et al., 2016). These scholars caution that the inherent volatility and speculative nature of cryptocurrencies may result in financial harm, thereby conflicting with the objectives of *maqasid al-Shariah*, which emphasize the protection of property and the promotion of societal welfare (Kasdi, 2019).

A balanced perspective is offered by scholars such as those affiliated with AAOIFI and Dr. Mohd Daud Bakar, who support the adoption of cryptocurrencies solely when they are backed by tangible assets. For example, they support the use of stablecoins linked to tangible assets like gold, allowing for the potential benefits of digital currencies while carefully adhering to Shariah compliance (Saied et al., 2024). This position emphasizes the importance of balancing innovation in financial products with compliance with the standards embodying *mal mutaqawwim* (recognized assets) to ensure robustness against speculative trading practices (Said et al., 2016). Moreover, the permissive stances often overlook systemic risks associated with cryptocurrency mining, such as significant environmental impacts, whereas restrictive views may disregard crypto's capacity for fostering socioeconomic empowerment, especially in regions with limited financial access (Nasir et al., 2022). This tension embodies a larger conflict between traditional textualist interpretations of Islamic law and the evolving pragmatic applications of such laws in a rapidly changing economic landscape, indicative of different regional emphases—those in conservative Gulf states often accentuating the avoidance of potential harms (*sadd al-dhara'i*) versus a more innovative Southeast Asian approach, which seeks to position itself as a leader in fintech (Aziz et al., 2021).

To reconcile these disparate views, a collaborative and interdisciplinary approach is necessary, focusing on empirical research that explores real-world implementations of cryptocurrencies in accordance with Shariah. This entails promoting education among scholars regarding the mechanics of blockchain technology and its potential applications within an Islamic framework, while also fostering international collaboration to develop Shariah-compliant financial solutions that harmonize divine principles with contemporary technological advancements (Karimullah, 2023).

In summary, the Islamic legal discourse on cryptocurrency is marked by a complex interplay of permissive and restrictive perspectives, reflecting broader ethical, economic, and social considerations. Bridging the gap between these perspectives requires careful consideration of both classical principles

and contemporary economic realities, underpinned by a commitment to the principles of maqasid al-Shariah.

Developing Shariah-Compliant Crypto-currency Products

Islamic financial institutions possess the potential to design Shariah-compliant cryptocurrency products that uphold Islamic ethical standards. These products can include Shariah-compliant investment funds, trading platforms, and financial services that utilize blockchain technology. By offering these products, Islamic financial institutions can provide Muslim investors with opportunities to participate in the crypto-currency market while adhering to their religious principles. Shariah-compliant investment funds can be structured to avoid investments in businesses and activities prohibited under Islamic law, such as those involving alcohol, gambling, and interest (*riba*). These funds can also ensure that investments are backed by tangible assets, promoting economic stability and ethical behavior. For example, an investment fund could prioritize cryptocurrencies backed by tangible assets, such as real estate or commodities, thereby aligning with the Islamic finance requirement for asset-backed transactions (Wanke et al., 2022).

Another pathway for advancing Shariah-compliant cryptocurrency products lies in the development of trading platforms specifically designed to operate in accordance with Islamic ethical standards. These platforms can offer trading services that avoid activities and ensure transparency and fairness in transactions (Hidayah et al., 2021). For instance, Shariah-compliant trading platforms could implement mechanisms to reduce excessive speculation (*gharar*) and gambling (*maysir*), which are prohibited in Islamic finance. Additionally, these platforms could utilize smart contracts that comply with Islamic contractual norms, ensuring that transactions are ethical and transparent (Azmat & Subhan, 2021).

Although Zohar (2017) highlights that blockchain technology provides substantial advantages in security, transparency, and efficiency, making it a valuable instrument for the development of Shariah-compliant financial services. Islamic financial institutions can leverage blockchain technology to create financial products that align with Islamic principles. For example, blockchain-based payment systems can provide secure and transparent transactions, reducing the risk of fraud and promoting trust in financial dealings (Zohar, 2017). Moreover, blockchain technology can be used to create decentralized financial services that offer greater accessibility and inclusivity, particularly for unbanked and under-banked populations (Wanke et al., 2022).

Ensuring that Shariah-compliant cryptocurrency products align with Islamic ethical standards requires careful attention to both ethical considerations and regulatory challenges. This involves developing robust regulatory frameworks that ensure compliance with Shariah law. These frameworks should provide clear guidelines on permissible financial activities and ensure transparency, accountability, and ethical behavior in financial transactions. Additionally, ethical oversight is crucial to ensure that crypto-currency products align with the principles of justice, fairness, and social welfare central to Islamic finance (Shah et al., 2023).

Furthermore, there are several factors that should be considered when assessing the Shariah compliance of cryptocurrency investments, as highlighted in an interview with Prof. Dr. Supardi Mursalin, M.Ag, a senior lecturer and researcher at the Faculty of Economics and Islamic Business, UIN Fatmawati Bengkulu, Indonesia. He said: *"From the perspective of Islamic finance, the primary considerations in evaluating a cryptocurrency are its compliance with the prohibitions against riba (interest), gharar (excessive uncertainty), and maysir (gambling). If the cryptocurrency is speculative, it could be deemed maysir and therefore impermissible. Similarly, if the cryptocurrency is used for illicit activities such as gambling, it would violate Shariah law."*

Therefore, the development of Shariah-compliant cryptocurrency products presents significant opportunities for Islamic financial institutions to offer ethical and inclusive financial services (Zohar, 2017). By creating investment funds, trading platforms, and financial services that utilize blockchain technology and adhere to Islamic ethical standards, these institutions can offer Muslim investors the chance to participate in the cryptocurrency market while maintaining their religious principles. Addressing ethical and regulatory concerns and promoting educational initiatives are crucial to ensuring the success and acceptance of these products in the Islamic finance (Maiyya et al., 2018).

Bridging Islamic Finance and Crypto-currencies

The integration of cryptocurrencies into Islamic finance presents a landscape of both challenges and opportunities (Dawood et al., 2022). The nature of crypto-currencies, the prohibition of riba, and the requirement for asset-backed transactions pose significant hurdles. Islamic finance emphasizes stability, fairness, and ethical behavior in financial transactions, principles that are sometimes at odds with the highly volatile and crypto-currency market. The prohibition of riba further complicates the matter, as many crypto-currency-related financial products, such as lending platforms, often involve interest, which is not permissible under Shariah law (Kato, 2022). Additionally, the need for transactions to be backed by tangible assets conflicts with the nature of crypto-currencies, which typically lack intrinsic value and are not tied to physical commodities (Brühl, 2017).

Nevertheless, there are promising opportunities for integrating cryptocurrencies within the framework of Islamic finance. Crypto-currencies have the potential to promote financial inclusion by providing access to financial services for unbanked and underbanked populations. This is particularly relevant in regions with limited access to traditional banking infrastructure. The decentralized nature of crypto-currencies allows for peer-to-peer transactions, enhancing financial accessibility and inclusivity (Belke & Beretta, 2020). Moreover, the underlying blockchain technology ensures transparency and security, aligning well with the principles of honesty and integrity emphasized in Islamic finance (Abedifar, 2023). To bridge the gap between traditional Islamic finance and emerging financial technologies, it is crucial to address the ethical concerns associated with crypto-currencies (Ali, 2023).

Establishing robust frameworks rooted in Islamic principles is essential to ensuring the ethical integration of cryptocurrencies into financial systems. This involves creating regulatory guidelines that ensure transparency, accountability, and compliance with Shariah law. For instance, Shariah-compliant crypto-currencies could be developed by backing digital tokens with tangible assets such as commodities or real estate (Ballandies, 2022). Implementing smart contracts that adhere to Islamic contractual norms can ensure that transactions are ethical and fair (Abedifar, 2023). Some specific examples of smart contracts are:

1. Interest-Based Lending Contracts

Interest-based lending, especially as practiced on decentralized finance (DeFi) platforms, presents a clear conflict with Islamic finance principles, given the explicit prohibition of *riba* (usury). Such contracts guarantee returns irrespective of the risk borne by the lender, undermining the core Islamic value of shared risk and equitability in financial transactions (Nouman et al., 2019). This necessitates a shift toward Profit-and-Loss Sharing (PLS) models such as Mudarabah and Musharakah. Mudarabah allows one party to provide capital while the other manages the investment, thereby promoting a collaborative effort towards profit generation (Wardhani & Barthos, 2021). Similarly, Musharakah entails joint investment where all parties share profits and losses, which supports fairness in financial dealings. Implementing such models through smart contracts on blockchain can enhance transparency and traceability, ensuring that profits are derived from genuine economic activities rather than exploitative interest (Choong et al., 2017).

2. Speculative Derivatives Contracts

The use of derivatives, including futures or options, for betting on price movements introduces elements of *gharar* (uncertainty) and *maysir* (gambling), both of which are prohibited in Islam. In this context, it is imperative to replace such speculative contracts with Islamic forward-sale agreements like Salam or Istisna. A Salam contract, for instance, facilitates purchasing goods in advance with prepayment, thereby linking transactions directly to identifiable assets and reducing uncertainty (Sardar & Iqbal, 2023). The introduction of technology such as IoT sensors to confirm the delivery and quality of goods before the release of funds mitigates risks inherent in conventional cash transactions, fostering a business environment rooted in material production rather than speculative gains (Ben Jedidia, 2020).

3. Gambling and Lottery Contracts

Gambling platforms are fundamentally incompatible with Islamic principles, as they operate on the basis of *maysir* (speculation and games of chance), which is expressly prohibited. As an alternative, the principles of Qard Hasan interest-free loans can be coded into smart contracts, enabling ethical financial assistance that supports those in need without the stigma of debt (Othman et al., 2021). Furthermore, automating zakat distribution through smart contracts can ensure that contributions are allocated

transparently and equitably to verified recipients, promoting social justice, which is a foundational pillar of Islamic finance. This approach ensures wealth circulation and supports the underprivileged, resonating with Islamic values of community welfare and fairness in economic participation (Yustiardi et al., 2020).

In this sense, the pivot toward PLS models, Islamic forward sale agreements, and ethical loan structures within the framework of smart contracts embodies a significant step towards aligning modern finance with Islamic principles. By integrating technology into these structures, financial systems can enhance transparency, reduce risks, and ensure fairness, thereby fulfilling the ethical mandates of Shariah. The need for a rigorous reassessment of existing practices is evidenced by literature that advocates for Islamic finance's alignment with participatory and equitable financial practices.

The integration of cryptocurrencies into Islamic finance necessitates ongoing scholarly discourse and active collaboration among Islamic scholars, financial practitioners, and policymakers. By engaging in dialogue and research, it is possible to develop a nuanced understanding of crypto-currencies and their implications for Islamic finance. This collaborative approach can help navigate the complex landscape of crypto-currency investments, ensuring that Muslim investors can participate in the growing crypto-currency market while adhering to their religious principles (Albalawee & Fahoum, 2023; Almansour, 2019; Aftab et al., 2023).

An interview with Islamic scholar and Economic Expert Prof. Dr. Asnaini, M.A. on how we can bridge the gap between Islamic finance and cryptocurrencies to create a system that benefits both: *“Bridging this gap requires meaningful engagement and collaboration among Islamic finance experts, regulatory authorities, and blockchain developers. We need to identify models of cryptocurrency that align with Islamic ethical standards, and this could involve creating Shariah-compliant cryptocurrencies, which would focus on principles like asset backing and transparency. Additionally, we could explore the possibility of cryptocurrencies being used for Islamic microfinance projects, Islamic investment platforms, or for humanitarian aid purposes.”*

Therefore, bridging Islamic finance and cryptocurrencies entails not only addressing substantial challenges but also harnessing significant opportunities. By developing frameworks that align with Islamic ethical principles, it is possible to create a financial system that is inclusive, ethical, and aligned with the values of Islam. This integration can provide valuable insights for scholars, practitioners, and policymakers, ultimately contributing to a more inclusive and resilient financial ecosystem.

Shariah-Compliant Crypto Framework: Harmonizing Asset-Backed Tokens, Ethical Governance, and Regulatory Synergy

As cryptocurrencies disrupt conventional financial paradigms, a Shariah-compliant crypto framework seeks to harmonize asset-backed tokens, ethical governance structures, and collaborative regulatory efforts. This approach aims to reconcile blockchain innovation with Islamic prohibitions against *gharar* (excessive uncertainty), *riba* (usury), and *maysir* (gambling),

thereby fostering the ethical adoption of digital assets grounded in tangible value, shared accountability, and the promotion of social justice.

1. Asset-Backed Tokenization and Profit-and-Loss Sharing (PLS) Mechanisms

To address the lack of intrinsic value and speculative trading, the framework mandates crypto currencies to be tied to tangible assets (ayn) or services, such as tokenized Sukuk (Islamic bonds) representing ownership in halal real estate or renewable energy projects. For example, a blockchain-based Sukuk could automate profit distribution from rental income, verified via IoT sensors or third-party oracles, ensuring returns stem from real economic activity rather than abstract speculation. Similarly, commodity-backed stablecoins like gold-pegged tokens (e.g., OneGram) anchor value to physical reserves, audited through smart contracts to guarantee transparency (Rahmadani & Fajar, 2024). To further mitigate gambling-like behavior (*maysir*), profit-and-loss sharing (PLS) models such as *Mudarabah* (profit-sharing) can be incorporated. Decentralized platforms could pool investor funds into ethically sound ventures such as halal agriculture with smart contracts ensuring that profits are distributed only after revenue generation is verified. This replaces fixed-interest mechanisms with dynamic rewards tied to real-world productivity, ensuring compliance with Islam's prohibition of *riba* (interest) and speculative excess (Soualhi & Saleh, 2024).

2. Ethical Governance Tools and Behavioral Restrictions

The framework leverages blockchain's transparency to enforce Shariah principles through decentralized governance tools. For instance, Shariah oracle networks could audit crypto projects in real time, blocking transactions linked to prohibited sectors (e.g., gambling, alcohol) or exploitative practices. Smart contracts might also embed behavioral safeguards, such as restricting access to high-frequency trading platforms or imposing "cooling-off periods" to prevent impulsive, gambling-like behavior (Antova & Tayachi, 2019). Additionally, wallets designed for Islamic finance could automatically filter non-compliant assets, ensuring users only engage in transactions aligned with halal standards (Munawar & Mugiono, 2024). These tools help mitigate *gharar* (excessive uncertainty) by removing ambiguous terms and ensuring that all contractual obligations such as delivery timelines in *Salam* contracts (advance payment for goods) are clearly predefined and verifiable on-chain. By automating compliance, the framework reduces reliance on subjective oversight while maintaining ethical rigor (Soualhi & Saleh, 2024).

3. Regulatory Collaboration and Standardized Certification

A crucial component of this process is fostering collaboration among Islamic scholars, regulatory authorities, and technologists to develop standardized frameworks for Shariah compliance. For example, a unified body (akin to AAOIFI for crypto) could certify projects meeting asset-backing, anti-*riba*, and ethical criteria, like halal food labeling. Platforms like Rain (a Shariah-compliant crypto exchange) might undergo annual audits by accredited scholars to verify adherence to these standards (AlFzari

et al., 2024). Hybrid contracts merging classical Islamic agreements with blockchain efficiency are also key: a *Wakalah* (agency agreement)-based custody service could use smart contracts to enforce fiduciary duties, ensuring trustees (*wakeel*) act in investors' best interests (Soualhi & Saleh, 2024).

An interview with Ayu Laksmi Syntia Dewi, Head of OJK (Financial Services Authority) of Bengkulu Province, regarding the role of regulations in determining whether cryptocurrency is compliant with Shariah law. She said: *"Regulation plays a pivotal role in ensuring the Shariah compliance of cryptocurrencies. In unregulated markets, the risks associated with cryptocurrencies, such as manipulation or fraudulent schemes, could lead to issues with gharar and maysir. However, if the cryptocurrency is properly regulated, with clear rules governing its use and a transparent marketplace, it becomes easier to assess its Shariah compliance."*

Finally, educational initiatives such as blockchain-enabled *zakat* calculators or investment guides endorsed by Islamic scholars would empower Muslim investors to engage with cryptocurrency markets in a responsible and Shariah-compliant manner (Abiola-adams et al., 2025). This holistic approach bridges Islamic jurisprudence with technological innovation, ensuring crypto adoption aligns with both ethical principles and modern financial needs while addressing concerns about misuse, volatility, and regulatory ambiguity (Naz & Nazir, 2024). By integrating these pillars asset-backed value, ethical automation, and standardized oversight the framework provides a clear roadmap for reconciling crypto's disruptive potential with Shariah's timeless ethical mandates.

Conclusion

Integrating cryptocurrency investments within the framework of Islamic finance presents a landscape of both significant challenges and promising opportunities. Crypto-currencies like Bitcoin and Ethereum offer potential benefits such as financial inclusion, technological advancements, and enhanced security through blockchain technology. However, these digital assets also raise ethical and legal concerns under Islamic law (*Shariah*), particularly related to their speculative nature (*maysir*), excessive uncertainty (*gharar*), and the prohibition of interest (*riba*). The analysis of primary Islamic law sources, including the Quran, Hadith, and scholarly interpretations, reveals a complex relationship between crypto-currencies and Shariah principles. In this sense, this research provides actionable guidelines for Muslim investors and financial institutions to align crypto-currency investments with Shariah principles, emphasizing the need for asset-backed tokens, transparent risk-sharing models, and ethical oversight to avoid *Riba* (interest), *Gharar* (uncertainty), and *Maysir* (gambling). It also underscores the importance of regulatory collaboration and scholarly consensus to develop standardized frameworks that integrate crypto innovations with Islamic finance's ethical and social justice goals.

This study underscores the need for comprehensive guidelines and robust regulatory frameworks to ensure the Shariah compliance of cryptocurrency investments. Contemporary fatwas and the opinions of Islamic

finance scholars show divergent viewpoints, emphasizing the need for continuous scholarly discussion and evaluation. The research proposes a framework for developing Shariah-compliant crypto-currency investment guidelines, addressing key concerns such as intrinsic value, speculative behavior, and asset-backing requirements. Additionally, the study underscores the importance of educational initiatives to enhance financial literacy among Muslim investors, enabling them to make informed decisions that align with their religious principles. By addressing the ethical, legal, and financial dimensions of crypto-currency investments, this study offers valuable insights for scholars, practitioners, and policymakers. It contributes to the growing body of knowledge at the intersection of Islamic finance and emerging financial technologies, offering a balanced framework that enables the active participation of Muslim investors in the dynamic landscape of cryptocurrency markets.

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