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Response and Approach of Muhammadiyah in Addressing the Phenomenon of Digital Cryptocurrency in Urban Communities

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Abstract

The phenomenon of cryptocurrency adoption among Indonesia's urban communities is on the rise, following rapid digital economic development. However, the involvement of Muslim communities—including Muhammadiyah members—has sparked ethical and Islamic legal debates regarding the legitimacy and safety of cryptocurrencies. Diverse perspectives among religious authorities and the low level of digital sharia literacy underscore the importance of Muhammadiyah's response and approach to this issue. This study aims to elaborate on Muhammadiyah's response, legal (*fatwa*) arguments, and approaches regarding the phenomenon of cryptocurrencies, particularly in urban environments that are vulnerable to speculative investment and lack sharia understanding. The research uses a qualitative descriptive method with literature review, analyzing official fatwas, academic literature, and Muhammadiyah's religious education practices related to cryptocurrency. It also includes a comparative analysis with other Islamic authorities in Indonesia. The *Tarjih* and *Tajdid* Council of Muhammadiyah has issued a fatwa declaring the use of cryptocurrency, as both a means of exchange and an investment instrument, as haram. The main reasons for this decision are its speculative nature (*maysir*), uncertainty (*gharar*), extreme volatility, and lack of clear underlying asset. Muhammadiyah believes cryptocurrency does not satisfy sharia economic principles and tends to bring harm to society. Muhammadiyah's approach emphasizes community-based education, digital da'wah, and the enhancement of sharia financial literacy to protect urban communities from speculative investments and digital fraud risks.

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Introduction

Muhammadiyah is one of the largest and oldest Islamic organizations in Indonesia(Mardhiah et al., 2014), founded by KH. Ahmad Dahlan on November 18, 1912 in Yogyakarta(Ikbal et al., 2018). The organization was born amid challenging social, political, and religious conditions during the Dutch colonial period. At that time, Indonesian Muslims faced setbacks in various aspects of life including education, economy, and spirituality (Ahmad, 2015; Muaddyl Akhyar et al., 2024). Muhammadiyah emerged as an Islamic reformist movement aiming to purify Islamic teachings from practices deemed to deviate from the Qur'an and Hadith, while promoting modern and progressive education and social values(Islam & Jakarta, 2017). KH. Ahmad Dahlan began by establishing Madrasah Ibtidaiyah Diniyah Islamiyah, which laid the foundation for Muhammadiyah's educational and da'wah movement. The organization expanded its reach to education, health, social work, and economics to develop a progressive and independent Muslim society (Badriya & Putikadyanto, 2025; Yunus et al., 2024).

As times have changed, Muhammadiyah continuously adapts to social and technological developments. In today's digital era, advances in financial technology—especially digital currency—have created new challenges and opportunities for Indonesian Muslims. Urban societies, which are open to technological innovation, see growing use of digital money, including cryptocurrencies, supported by broad access to information technology (Amarullah et al., 2022; Ambarwati & Zohriah, 2024). Urban residents tend to quickly adopt new digital transaction methods, such as e-money, mobile banking, or cryptocurrency investment. This trend is a significant concern for religious organizations such as Muhammadiyah, given the need to ensure Muslims' financial activities abide by sharia and avoid *harm* (Arofansyah, 2025; Syarofah et al., 2021) .

Cryptocurrencies, as blockchain-based technological products, offer ease of use, anonymity, and profit potential for users. However, their highly speculative nature, price instability, and minimal regulation by authorities expose users to significant risks and losses. Furthermore, the uncertainty (*gharar),* excessive speculation (*maysir),* and incompatibility with Islamic financial principles are at the core of Muhammadiyah's fatwa that declares cryptocurrency haram, whether as an investment or as a means of transaction.

This prohibition serves as Muhammadiyah's way of protecting the Muslim community from the negative consequences of cryptocurrency investment and transactions, which are often beyond adequate supervision and regulation. In the urban context, where technological access and literacy are high, Muhammadiyah takes a holistic approach: not only issuing fatwas, but also reinforcing digital and sharia financial literacy through sustained education. Muhammadiyah actively provides training, seminars, counseling, and information campaigns to urban communities to enhance their awareness about the risks of crypto and the importance of sound Islamic financial principles in the digital era (Lestari, 2025; Meriyati et al., 2023).

Beyond education, Muhammadiyah also promotes the development of digital financial ecosystems that adhere to Islamic law. Muhammadiyah supports the use of sharia-compliant digital payment systems (e-money, QRIS) that are recognized and monitored by national financial authorities. This development aims to provide practice, safety, and transparency for urban financial transactions without violating Islamic principles. At the same time, Muhammadiyah advocates for stricter government and regulatory agency oversight to protect consumers from fraud, speculative abuse, and harmful business practices.

Muhammadiyah's response to the cryptocurrency phenomenon in urban communities is educational, preventive, and advocacy-based—rooted in sharia law. This outlook makes Muhammadiyah a pioneer among faith-based organizations, both in being attuned to technological advances and in guarding religious values against the negative impact of digital financial innovations that remain insufficiently regulated.

Given this vital role and responsibility, in-depth research on Muhammadiyah's approach to the digital cryptocurrency phenomenon in urban communities is crucial. This study aims to examine how Muhammadiyah implements fatwas, educational strategies, and regulatory advocacy to protect urban communities from sharia-incompatible digital financial risks. It will also assess Muhammadiyah urban communities' awareness and response to the fatwas and literacy programs implemented.

This research is expected to provide a comprehensive illustration of the relationship between religious organizations, technological development, and community understanding of digital finance. The findings will offer strategic recommendations for Muhammadiyah and related institutions to bolster sharia digital literacy and effective regulations, ensuring the well-being of Muslims in the digital era. Thus, Muhammadiyah's function is not only as an issuer of fatwas but also as a facilitator and protector, aiding the community in adopting financial technologies that are in harmony with Islamic principles and present-day needs.

Methods

The research method used in this study is a qualitative method with a document study approach. Document study is a data collection technique that involves gathering, classifying, and analyzing written documents relevant to the research topic prior to field data collection. The documents reviewed may include fatwas, official publications, scientific articles, reports, books, decrees, as well as various other types of documents that provide information about Muhammadiyah's attitudes, views, and policies regarding the phenomenon of digital cryptocurrency among urban communities.

This study focuses on the content analysis of these documents to understand the context, norms, and values upheld by Muhammadiyah concerning the legal aspects and handling of digital cryptocurrency. Data analysis is conducted using content analysis techniques aimed at identifying key themes, patterns, and important messages within the documents. During the analysis process, the researcher also conducts document criticism to ensure the authenticity, relevance, and credibility of the data sources so that the research results can be scientifically justified.

Results

The Phenomenon of Digital Cryptocurrency in Urban Communities

The development of digital technology has brought significant transformation across various aspects of life, including in the financial sector. One of the most revolutionary innovations in modern finance is the emergence of digital currency, or cryptocurrency, commonly known as crypto. Cryptocurrency uses blockchain technology as the foundation of its financial system, offering concepts of decentralization, transparency, and transaction security that attract broad public interest, especially among urban communities (Abdeldayem et al., 2020; Abdeldayem & Al Dulaimi, 2020).

Indonesia, as the fourth most populous country in the world with increasing internet penetration, is inevitably influenced by the trend of using digital cryptocurrency. Data from the Financial Services Authority (OJK) shows that the number of cryptocurrency asset users in Indonesia continues to grow rapidly. In February 2025, there were over 13 million crypto asset users, and this number is estimated to keep increasing by around 3-4% monthly. The value of cryptocurrency transactions in Indonesia during the same year also reached trillions of rupiah, despite slight fluctuations from the previous year (Fauziyah, 2025b; Pratomo, 2025)

This phenomenon indicates that Indonesian urban communities are becoming increasingly open and adaptive to digital financial technology. Urban residents often find it easier to access digital devices and have higher knowledge and interest in investing, including in crypto instruments. Millennials and Gen Z are the main demographic groups driving the popularity of digital cryptocurrency, due to their tendency to always follow the latest technological developments and seek alternative investments that promise high returns in a short time (Kusuma, 2020).

In the rapidly moving digital era, cryptocurrency has become a global phenomenon attracting wide interest, especially among the youth. More than just a passing trend, crypto introduces a new model in the financial system with offers of decentralization, openness, and promising profit opportunities. However, behind the appeal of the crypto world lie risks that deserve serious attention.

Unlike traditional physical money controlled by a central authority, cryptocurrency exists entirely in digital form. All transaction and storage processes occur electronically through internet networks and computer devices. One major advantage of crypto is its peer-to-peer (P2P) mechanism that allows users to transact directly without going through banks or financial institutions. These transactions occur on a decentralized network spread worldwide, making them faster, more efficient, and free from geographical barriers (Kirana et al., 2023).

Additionally, cryptocurrency enables cross-border transactions without the need for manual currency exchange. As long as the regulations in a country permit, crypto can be used for international transactions quickly and conveniently, whether to send money to family abroad or to purchase products from international e-commerce platforms. Each transaction is also protected by advanced cryptographic technology that safeguards user privacy behind transparent data recorded on the blockchain.

A concrete example is the Dogecoin phenomenon in 2021, when Elon Musk, CEO of Tesla and SpaceX, posted several tweets about Dogecoin on his Twitter. His short messages—sometimes just a word, image, or light joke—caused Dogecoin's price to soar by hundreds of percent. However, when Musk's attention waned or the market saturated, Dogecoin's price sharply dropped in a short time.

Despite its potential, digital cryptocurrency also brings various serious challenges and risks. Its highly volatile and speculative nature makes crypto assets prone to extreme price fluctuations in a short period. Large profits that sometimes appear are followed by significant losses experienced by users. Furthermore, the lack of strict regulation and legal oversight increases the risk of fraud, money laundering, and other illegal activities in the crypto market. Numerous reports have emerged about fraudulent investments and Ponzi schemes disguised as crypto assets, causing victims among the public. This situation creates concern and an urgent need for proper digital financial education and consumer protection from related institutions in Indonesia.

Moreover, the prevalence of scams and fake projects poses a serious threat in the crypto space. Cases of "rug pull"—where developers disappear taking investors' funds—continue to occur. Therefore, it is crucial for anyone interested in engaging in the crypto world to have adequate basic understanding and avoid investments beyond their risk tolerance. Facing the complexity of the crypto ecosystem, financial literacy becomes extremely important. Young generations must be equipped with sufficient knowledge about blockchain mechanisms, investment risks, and wise financial management. They should not be easily swayed by promises of quick profits without thorough research. Understanding various crypto terms such as DeFi, NFT, stablecoin, altcoin, and others is also essential to make informed decisions (Chopra et al., 2024).

The crypto phenomenon also creates a specific dynamic among urban communities. The use of digital money is not only limited to investment but has also begun to spread to daily transactions in certain groups, although it has yet to be formally recognized as a legitimate means of payment. This shows a behavioral shift in the urban economy toward full digitalization. Nevertheless, this requires clear regulation to ensure the digitalization of finance proceeds safely, controlled, and does not deviate from the principles of national law or the social and cultural values of Indonesian society.

In line with the rapid development of digital cryptocurrency, the Indonesian government responded by regulating the digital asset market through Law Number 4 of 2023 concerning the Development and Strengthening of the Financial Sector (PPSK). Through this law, the Financial Services Authority (OJK) is officially authorized to supervise and regulate the digital asset and crypto markets to ensure the safety and sustainability of this sector for the community and the national economy. Some affirmative policies have also been implemented, such as exemption from levies for digital financial and crypto asset industry players throughout 2025 to encourage healthy and inclusive growth (Herman et al., 2025).

Besides government regulation, improving literacy and education on crypto assets is very important. OJK and various related institutions actively organize digital financial education and literacy programs for the public, especially among urban communities who are the primary users of this technology. Programs such as the Crypto Literacy Month (BLK) 2025 were launched to provide understanding about the benefits and risks of crypto assets so the public can make wise and risk-aware investment decisions. Additionally, crypto industry players are encouraged to actively participate in enhancing literacy and providing responsible services to consumers (Lestari, 2025).

The digital crypto phenomenon in urban communities also opens great opportunities for innovation and digital economic transformation in Indonesia. Blockchain technology underlying crypto is increasingly being considered for applications in various sectors, such as digital certification, supply chain management, and providing inclusive financial services for micro, small, and medium enterprises (MSMEs). Collaboration among the government, industry players, academics, and the public is expected to create a healthy, transparent, and sustainable crypto ecosystem in Indonesia so that the benefits of this technology can be enjoyed without neglecting its risk management aspects (Faozi & Gustanto, 2024).

Discussion

Views and Fatwa of Muhammadiyah on Digital Cryptocurrency

One of the latest innovations in the world of modern financial transactions, especially in the digital realm, is the emergence of cryptocurrency or digital currency known as crypto. This currency differs and is complementary to official currency issued by authorities such as the central bank of a country. The operational system of crypto uses blockchain technology, which is a series of digital transactions stored in interconnected data blocks forming a chain. Each block records individual transactions verified through a distributed computer network (Akbar & Huda, 2022; Aloui et al., 2021; Billah, 2019).

Cryptocurrency differs from conventional money by being a digital asset stored and used based on virtual technology on the internet. The security of this currency is produced through a strong encryption system and is not centralized in one bank but rather spread across various communities that mutually supervise each other. This decentralization concept is what makes crypto have a higher level of security compared to traditional banking systems (Harahap et al., 2024).

Bitcoin is one of the earliest and most globally recognized types of crypto. All Bitcoin and other crypto transactions are recorded in this blockchain system — a digital ledger accessible to the public without requiring intermediaries such as banks. In this structure, there are three main elements working together: the transaction process, the verification system, and the place where transaction records are stored. In Indonesia, cryptocurrency transactions can be conducted through trading service provider applications that have received official licensing from the Commodity Futures Trading Regulatory Agency (Bappebti). Through these applications, users can select various types of crypto assets (Al Hasan, 2025; Fauziyah, 2025a).

From the perspective of Islamic law and business ethics (muamalah), several major fatwa institutions have issued opinions prohibiting the use of cryptocurrency. For example, in the context of Islam, discussions about crypto are still relatively new and complex. In 2017, Darul Ifta Al-Azhar Egypt decided that Bitcoin is considered haram (forbidden) in sharia law because it contains elements of gharar — uncertainty and speculation that harms one party.

One month later, the Indonesian Ulema Council (MUI) issued a note stating that Bitcoin has two different rulings: permissible (*mubah*) when used as a medium of exchange between consenting parties, but haram when used as an investment object due to its high risk. Meanwhile, the *Tarjih* and *Tajdid* Council of Muhammadiyah assesses crypto from two important aspects: as an investment instrument and as a means of exchange. Within the framework of Muhammadiyah's Business Ethics, which refers to the norms of creed, sharia, and morals from the Qur'an and

Hadith, these two aspects become benchmarks in evaluating the legitimacy of business practices, including digital finance (Akbar & Huda, 2022; Habibi et al., 2023).

First, if used as an investment instrument, crypto has many shortcomings when viewed from the perspective of Islamic sharia. One of the main problems is its highly speculative nature. The value of Bitcoin and similar assets is very unstable and can change drastically in an unnatural manner within a short time. In addition, Bitcoin is an asset without an underlying asset — real value such as gold or other valuable goods — so its existence relies solely on digital numbers causing uncertainty (*gharar*). In Islam, such uncertainty and excessive speculation are prohibited, in accordance with Allah's command and the Prophet's hadith forbidding gharar and *maisir* (gambling) (Poerwoto, 2025).

In its view, the *Tarjih* and *Tajdid* Council of Muhammadiyah considers cryptocurrency as an investment instrument to have many shortcomings from the sharia perspective. One of these is its highly noticeable speculative nature. For example, Bitcoin's value fluctuates significantly with unnatural increases or decreases. Moreover, cryptocurrency contains gharar or uncertainty. Bitcoin is described merely as numbers without any underlying asset or guarantee of crypto assets such as gold or other valuables. As quoted from Suara Muhammadiyah: "*This speculative and gharar nature is forbidden by sharia as stated in the Word of Allah and hadith of the Prophet Muhammad (peace be upon him) and does not meet Muhammadiyah's Business Ethics values and standards, especially two points: no gharar (*HR. Muslim) and no *maisir (*QS. Al Maidah verse 90). (Bisnis.com, 2025)"

Second, if Bitcoin is used as a means of exchange, the principle of law originally permits it, since in fiqh muamalah, the use of a means of exchange is similar to a barter system as long as both parties consent without loss. However, considering the principle of *sadd adz dzariah* or harm prevention, the use of Bitcoin becomes problematic. According to the *Tarjih* Council of Muhammadiyah, a means of exchange must be widely accepted by the public and officially endorsed by the state through institutions such as the central bank. Bitcoin is not officially recognized by the Indonesian government and lacks a responsible authority, so user protection is unavailable. Due to these harms, the *Tarjih Fatwa* of Muhammadiyah issued in early 2022 asserts that the use of cryptocurrency as either an investment or a means of exchange is haram (Ilham, 2025).

Additionally, Muhammadiyah considers crypto to have not met the criteria as an official means of exchange. Legitimate currency must be widely accepted by the public and ratified by the state through official institutions such as the central bank. Crypto has not received such official endorsement and lacks responsible supervisory authority, making it vulnerable to fraud and losses for users. This contradicts the principles of consumer protection and economic stability, which are part of the maqasid shariah (objectives of Islamic law).

Fahmi Salim, Vice Chairman of the Tabligh Council of PP Muhammadiyah, stated that due to the complexity and novelty of cryptocurrency, scholars remain cautious in issuing official fatwas. Personally, he considers that the ruling on cryptocurrency depends on how the technology is used—whether for halal (permissible) or haram (forbidden) purposes. However, he still advises avoiding the use of cryptocurrency because it is not yet officially recognized by the state and its value fluctuates very sharply. According to him, people should not follow trends without mature understanding.

Muhammadiyah's sharia economic expert, Muhammad Akhyar Adnan, added that the crypto business model remains unclear and entails many risks. He explained that crypto assets are not based on the real sector and do not share risk fairly, thus resembling speculation or gambling. Akhyar reminds the public to always be cautious and not be tempted by instant large profits because this contradicts Islamic financial principles that emphasize effort and patience.

Akhyar used a plant business analogy to explain ideal investment: large profits usually require a long time, like teak wood that can only be used after decades, not fast-growing plants with small yields. Cryptocurrencies like Bitcoin basically have the same functions as conventional currency—as a medium of exchange, store of value, and unit of account. However, the difference is that crypto is not managed by a central bank and its transaction data are digitally encrypted.

Nonetheless, the popularity of crypto as an investment instrument has created many new millionaires in a short time, attracting millennials who are open to digital technology (Kurniawan, 2025).

On the other hand, there is a view highlighting that this fatwa is dynamic and may change according to future technological and regulatory developments. Mukhlis Rahmanto, a member of the Economic Study Division of the Muhammadiyah Tarjih Council, stated that the haram fatwa against cryptocurrency could change if certain important requirements are met, such as the presence of an underlying asset (clear and real base asset) and legal certainty from the government or state. If these aspects are fulfilled, the elements of *gharar* (uncertainty) and *maisir* (excessive speculation) can be minimized, so its legal status might change to *halal* or *mubah* (permissible) in Islamic law. This shows Muhammadiyah's open attitude towards technological development as long as sharia principles are respected (Oswaldo, 2025).

More broadly, Muhammadiyah also emphasizes the importance of using digital money or blockchain technology that complies with sharia values. If the use of digital assets is based on Islamic business ethics without excessive speculation, fraud, and guarantees transparency and consumer protection, its use can be accepted. Thus, Muhammadiyah's view leaves room for safe and responsible sharia financial technology innovation, rather than outright rejection.

The Chairman of the Indonesian Crypto Asset Traders Association (Aspakrindo), Teguh Kurniawan Harmanda, respects the views, wisdom, and stance of the fatwa recently issued by Muhammadiyah regarding crypto assets. The Tarjih and Tajdid Council of PP Muhammadiyah issued a fatwa that the use of crypto assets as investment or means of exchange is haram. Teguh explained that crypto assets in Indonesia are strictly regulated and supervised by the Commodity Futures Trading Regulatory Agency (Bappebti) under the Ministry of Trade. To protect investors, traders, and related institutions in crypto asset trading, Bappebti has issued several regulations (Gumilang, 2025).

One of them is Bappebti Regulation Number 8 of 2021 concerning Guidelines for Organizing Physical Crypto Asset Market Trading on the Futures Exchange. To reaffirm the legally valid rules related to crypto assets, Teguh said the association agrees that crypto assets cannot and should not be used as currency or legal payment instruments in Indonesia. However, he said, crypto assets can be traded as commodities as long as they have underlying assets or clear benefits for society. The types of crypto assets have also been determined by Bappebti.

Previously, the Tarjih and Tajdid Council of PP Muhammadiyah viewed cryptocurrencies from two sides: as investment instruments and as means of exchange. This is also based on a business ethics framework decided by the Tarjih and Tajdid Council in the 27th National Assembly in Padang in 2003, as a set of norms based on creed, sharia, and morals derived from the Qur'an and the accepted Sunnah, used as benchmarks in business activities and related matters (Rizieq & Baidhowi, 2025).

Muhammadiyah's Approach to Addressing the Cryptocurrency Phenomenon in Urban Communities

Muhammadiyah, as the largest Islamic organization in Indonesia, not only issues fatwas declaring the use of digital cryptocurrency as haram but also actively adopts a holistic approach to deal with the cryptocurrency phenomenon in urban communities. This approach emphasizes education, financial and sharia literacy, policy advocacy, as well as spiritual and social strengthening so that urban communities can be wiser in using digital financial technology.

1. *Education and Sharia Financial Literacy*

One of Muhammadiyah's main approaches is to improve digital and sharia financial literacy among urban communities. For example, Yudi Haryadi, a lecturer in the Sharia Economics Study Program at Muhammadiyah University of Bandung, highlighted the phenomenon of cryptocurrency investment fever prevalent among youth. He pointed out that the crypto market, with its high volatility and 24-hour activity, can lead to addictive sensations similar to gambling.

Therefore, education regarding the risks of crypto investment and Islamic financial principles is crucial to avoid addiction and large financial losses. Muhammadiyah supports financial literacy education from an early age so that the younger generation becomes not only recipients of money but also wise and responsible managers.

In a recent study at the Aisyiyah West Java Subuh Mengaji Movement (GSM), Yudi discussed how enthusiasm for crypto often turns into addiction, causing serious psychological, social, and economic impacts. He explained that crypto's 24/7 active market and extreme fluctuations can cause addictive sensations similar to online gambling or digital games. Young people who initially intend to invest often become trapped in speculative behavior due to low financial and sharia literacy, compounded by social media influence and the fear of missing out (FOMO) phenomenon pushing them to follow trends without proper understanding.

Yudi revealed that crypto addiction negatively impacts mental health, causing stress, sleep disorders, depression, and even social relationship breakdowns. Many students and young workers suffer large losses, sometimes indebting themselves by hundreds of millions of rupiah seeking quick wealth through crypto. A culture of consumerism and hedonism also underlies this phenomenon. He reminded that from an Islamic viewpoint, crypto as currency is considered haram because it contains elements of gharar (uncertainty), maisir (gambling), and high speculation. However, if crypto meets the requirements of a clear commodity and is free from haram elements, its use could be permitted. Therefore, government regulation and supervision are vital to protect society (Zainudin Hasan et al., 2024).

Yudi emphasized the importance of teaching financial literacy from early childhood. Children must be taught not just to receive money but also to manage it wisely. Financial education should start early to foster responsibility and awareness of money's value. Families serve as the primary bastion preventing youth from falling into fraudulent investments. Parents are expected to be present psychologically and spiritually, guiding children to understand wealth as a trust (*amanah*) from Allah, not a tool for showing off or pride. With a strong foundation of faith, youth can resist instant wealth temptations.

In the context of da'wah and education, Yudi called for collaboration between families, educational institutions, the government, and scholars to shape a generation that is both digitally literate and spiritually strong. Technology can be advanced, but must be balanced with good morals. Profits can be large, but must be halal and bring blessings.

2. *Spiritual and Social Guidance*

Muhammadiyah also stresses the role of the family as the main defense against young investors falling into crypto traps. Parents are encouraged to actively guide their children to understand that wealth is entrusted by Allah, not a means for showing off or quick riches. Strong faith foundations help youth resist speculative temptations and consumerist culture. In addition, Muhammadiyah advocates collaboration among families, educational institutions, government, and scholars to build a digitally capable generation that is spiritually and socially resilient (Fauzi et al., 2022).

3. *Regulatory Advocacy and Consumer Protection*

Muhammadiyah actively calls for strict regulation and government oversight to protect society from excessive speculation and fraud risks in crypto transactions. In urban communities where digital transactions are highly active, clear legal protection and regulation are essential to ensure financial technology use remains controlled, safe, and fair according to maqashid sharia principles. Muhammadiyah supports the Financial Services Authority (OJK) and other government agencies in responsibly supervising the digital asset market (Siboro et al., 2024).

4. *Development of the Sharia Digital Financial Ecosystem*

Besides rejecting crypto investment based on the haram fatwa, Muhammadiyah encourages the development of sharia-compliant financial technology, such as digital money regulated and supervised by official authorities, as well as strengthening digital sharia financial products. This innovation aims to meet urban communities' practical and modern needs while preserving Islamic values in every transaction. This approach also opens space for innovation and collaboration between Muhammadiyah, fintech industry players, and the government, ensuring the growth and broad benefits of sharia fintech.

5. *Empowerment through Studies and Digital Da'wah*

Majelis Tarjih Muhammadiyah regularly conducts in-depth studies on contemporary financial technology issues, including crypto, to provide clear religious guidelines for the community. Additionally, Muhammadiyah utilizes digital media as an effective da'wah and educational channel to reach technology-savvy urban populations. Through online seminars, webinars, and digital educational content, Muhammadiyah strives to educate and warn the public about potential risks and harms from using digital cryptocurrency without adequate knowledge (Putri et al., 2022).

Combining Fintech and Sharia Principles in Modern Finance as Muhammadiyah's Response

One essential aspect needed to develop Indonesia's halal industry to compete globally is the availability of big data and blockchain technology. Blockchain itself is a technology used as a digital storage system or data bank secured by cryptography. Generally, blockchain has been used for storing financial data related to crypto and similar assets. In today's modern era, financial technology or fintech has become a main pillar of the global financial sector. Innovations in this field open opportunities for various financial products and services that are more efficient and inclusive. However, within the realm of Sharia finance, a special approach is required to ensure that Islamic principles are upheld. This indicates that integrating fintech with Sharia finance demands specific knowledge and expertise to avoid conflicts between technological advancement and Sharia's ethical and moral values (Alyami et al., 2023; Putra et al., 2025; "The Emergence of Islamic Fintech and Bahrain," 2024).

According to Muhammad Zakiy, in his article in Suara Muhammadiyah titled "Islam and the Development of Technology," there exists a negative stereotype towards Muslims in accepting technology. Islam governs all aspects of life, from minor matters to principles that influence a Muslim's faith. This includes fintech as a new phenomenon that requires regulation according to Islamic law.

Financial technology, with its complexity and transformational potential, offers financial service providers the chance to reach more people, including those who previously had limited access to conventional financial systems due to time and location constraints. This presents a great opportunity to expand the reach and benefits of Sharia finance, especially in rural areas with low financial inclusion. However, the main challenge and opportunity in combining technology with Sharia principles is ensuring that every new innovation and service adheres to the strict standards of Islamic finance. Given that fintech products were not present during the time of the Prophet Muhammad (peace be upon him), in-depth study by contemporary scholars is necessary to establish rulings that can serve as foundations for developing profitable Sharia fintech products (Gumilang, 2025).

It must be emphasized that Sharia finance is based on principles of justice, sustainability, and transparency. Therefore, Sharia fintech experts and practitioners must ensure that solutions developed not only meet technical and financial aspects but also integrate fundamental Sharia ethical and moral values. For example, blockchain technology and smart contracts can build a fair and transparent transaction system in line with Sharia principles. This technology enables transaction recording that is publicly verifiable and minimizes the risk of usury *(riba)* and transactions involving excessive uncertainty *(gharar)* (Muneeza et al., 2023; Zaman et al., 2025).

Furthermore, digital banking applications have great potential to facilitate access to Sharia financial services. Various fintech providers have adopted Sharia-based transactions, such as PayTren, Indves, and Alami Sharia. However, developers must carefully design platforms to avoid usurious transactions and excessive speculation. Therefore, it is crucial to involve Sharia financial experts in product development processes to ensure full compliance with Sharia principles and provide real benefits to both Muslim and non-Muslim communities seeking fair and sustainable financial solutions. Referring to POJK No.10 Year 2022, Sharia fintech providers are required to have at least one member of the Sharia Supervisory Board (Dewan Pengawas Syariah, DPS), ensuring that transactions are free from usury .

Before discussing fintech applications in Sharia finance, it is important to understand the definition of fintech itself. The Financial Services Authority (OJK) defines fintech as companies or businesses that innovate financial products or services by utilizing information and communication technology. Meanwhile, the International Monetary Fund (IMF) describes fintech as technological innovations in financial services that produce new business models, applications, processes, or products with significant impact on markets, financial institutions, and financial service providers. The use of technology is a *sunnatulla*h (natural law) for humans in the modern era and is not forbidden by religion, even though such technology did not exist during the Prophet's time. Therefore, Muslims need to understand and deepen the concept of fintech in order to create muamalah (transaction) products that comply with Islamic principles (Al-Qudah et al., 2025).

In building Sharia financial products based on technology, it is important to return to the main Sharia principles such as prohibitions on *riba* (usury), *maisir* (gambling), and *gharar* (excessive uncertainty), as well as the principles of justice and public interest (*maslahah*). The prohibition of riba emphasizes that profit must originate from real economic activities, not interest or usury. The prohibitions on maisir and gharar prioritize avoidance of excessive speculation and high uncertainty in transactions. Meanwhile, justice and maslahah principles ensure financial products not only benefit individuals or entities but also consider social welfare and fairness comprehensively. Although interpretations may vary in some aspects, understanding and respecting these principles enable the development of products consistent with Islamic ethics and morals (Wahid, 2023).

Experts recognize the great potential of blockchain technology and smart contracts in facilitating transactions compliant with Sharia principles. This technology allows for high transparency and automation while minimizing the risk of transactions that violate Sharia principles. Additionally, smart contracts can be programmed to ensure that transactions only occur if they meet Sharia requirements, avoiding prohibited practices (Faozi & Gustanto, 2024).

Thus, implementing this technology not only expands the scope of Sharia financial services globally but also builds trust among market participants, enhances the integrity of the Sharia financial market overall, and paves the way for further advances in meeting the needs of the global community adhering to Islamic principles. With this, Sharia transactions can become more efficient and flexible, making them an attractive option for Muslim consumers.

As stated by Nadratuzzaman Hosen (a member of the Halal Inspection and Halal Thayiban Study Institute (LPH-KHT) of PP Muhammadiyah), blockchain technology is a data storage technology managed in a peer-to-peer distributed system. This technology functions like a ledger with a consensus-based verification system and a transaction record security system secured by cryptography, making it suitable for traceability in the halal industry that is transparent, trustworthy, and secure (Oswaldo, 2025).

In the Pre-Congress Seminar titled "Opportunities and Challenges of the Halal Industry and Tourism" on May 12, 2025, Hosen gave an example of how blockchain and big data systems help the halal industry system in Australia, especially concerning fresh meat products. With this system, every piece of meat can be traced from downstream to upstream. It even includes batch numbers, information about the recorder, order numbers, transportation history, and whether the meat storage has been contaminated by non-halal products or not. With blockchain technology, consumers can trace transaction history and product halalness in seconds, both domestically and internationally.

Regarding Muhammadiyah's potential to engage in the halal industry, he advised that this should also be a focus alongside the halal certification currently undertaken by LPH-KHT. While developing blockchain, Muhammadiyah needs to intensify halal certification for traders and all types of economic products from Micro, Small, and Medium Enterprises (MSMEs). Hosen mentioned that business actors and traders with halal certification marks on their stalls, outlets, or food products will increase their sales value and popularity (Ilham, 2025).

Several important points must be considered in developing Sharia financial products utilizing financial technology: *first,* Research and Consultation: The first step in developing Sharia financial products is conducting in-depth research and consulting with Sharia financial experts. This helps understand potential customers' needs and preferences, ensuring that the developed products comply with Sharia principles. Product development based on research has a higher likelihood of success than those developed solely on an individual's creativity.

Second, Product Design: Product design must consider Sharia principles, including prohibitions on *riba* (usury), maisir (gambling), and gharar (excessive uncertainty). The profit-generation mechanism must be based on legitimate Sharia principles. Moreover, the products created must also follow market tastes so that they are not only Sharia-compliant but also marketable to the public. *Third,* Supervision and Audit: It is essential to have strong supervision and audit mechanisms to ensure that the financial products developed continue to comply with Sharia principles over time. Therefore, Sharia-based fintech is obliged to have a Sharia Supervisory Board (Dewan Pengawas Syariah, DPS).

Fourth, Education and Financial Literacy: Providing education and improving financial literacy related to the developed Sharia financial products is very important. This helps the public understand the benefits and principles behind these products. Literacy that enhances inclusion and even adoption is a crucial factor that fintech providers must prepare for so that investments in fintech development are well targeted.

These four factors are important considerations before developing Sharia fintech products to ensure they can grow and compete in the digital technology era. Combining fintech with Sharia financial principles is a vital step in building financial products that meet the needs of modern Muslim communities. By understanding Sharia principles and utilizing existing financial technologies, inclusive, innovative financial products in line with Islamic values can be created.

With the involvement of Sharia financial experts and careful supervision, success and sustainability of Sharia financial products built using financial technology can be ensured. With this holistic approach, the Sharia financial ecosystem is strengthened, contributing positively to sustainable and inclusive economic development, so the goals of Islamic economics—justice and public welfare—can be realized well.

Conclusion

In summary, Muhammadiyah's views on digital cryptocurrency are described as follows: *First*, it is haram as both an investment instrument and a means of exchange because it contains gharar (uncertainty), *maisir* (gambling), and it has not been recognized as an official currency. *Second,* there is potential for changes in fatwa if conditions such as the presence of underlying assets and regulatory fulfillment are met in the future. *Third,* Muhammadiyah supports innovation in Sharia financial technology that complies with Islamic principles and benefits the community.

This view also serves as guidance for Muslims, especially Muhammadiyah members, to be cautious in using digital cryptocurrency and to promote literacy and education on digital finance based on Sharia to avoid falling into risks of speculation and significant losses. With this critical but open attitude, Muhammadiyah becomes one of the Islamic organizations actively overseeing financial technology to align with religious values while encouraging urban communities to act wisely and responsibly in using digital cryptocurrency.

Muhammadiyah's approach and response to the digital cryptocurrency phenomenon is firm: rejecting the legality of crypto both as a means of exchange and as an investment instrument on Sharia grounds—particularly due to elements of gharar, maisir, and greater harm than benefit. Muhammadiyah prioritizes the role of education and technology-based community da'wah to enhance Sharia understanding and build risk awareness in urban communities. The integration of

Sharia fintech literacy in curricula and involvement of Muhammadiyah digital figures are strategic steps to face the challenges of the digital economy in the future.

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