

Digital Solutions for Islamic Charity: The Impact of Cryptocurrency on Zakat, Infaq, and Sadaqah

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Abstract

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In the digital age, financial technology (fintech) developments offer new opportunities for the practice of Islamic charity, particularly zakat, infaq, and sadaqah (ZIS). One of the most innovative solutions is the use of cryptocurrency in these charitable activities. This article aims to analyze the impact of cryptocurrency adoption in the collection and distribution of ZIS by reviewing relevant literature and existing case studies. The research seeks to understand the potential, challenges, and legal implications of utilizing cryptocurrency in Islamic charity. The findings reveal that while cryptocurrency has the potential to enhance the efficiency and transparency of ZIS collection, it also presents challenges related to regulation, value stability, and acceptance by religious authorities.

Keywords: *cryptocurrency, zakat, infaq, sadaqah, Islamic charity, fintech, blockchain*

INTRODUCTION

The rapid development of digital technology and financial innovation has significantly transformed how individuals and institutions manage finances and conduct transactions. In recent years, the introduction of cryptocurrency, a form of decentralized digital currency based on blockchain technology, has revolutionized various sectors, including commerce, investment, and philanthropy. Blockchain, the underlying technology of cryptocurrency, offers a decentralized ledger that records transactions transparently and securely without the need for intermediaries, such as banks (Tripathi et al., 2023). This innovation has paved the way for new opportunities in many fields, including Islamic charitable giving, which encompasses zakat, infaq, and sadaqah (ZIS).

Islamic charity is deeply rooted in the principles of Islam, with zakat being one of the five pillars of faith. Muslims are required to give a portion of their wealth to those in need, fulfilling their religious obligation to assist the poor and marginalized (Benthall, 1999; Pranata et al., 2022). In addition to zakat, which is mandatory, there are voluntary forms of charity such as infaq and sadaqah, which further promote the ethos of generosity and social responsibility within the Islamic community (Pranata & Maulana, 2024; Yusuf et al., 2024). Traditionally, the collection and distribution of these charitable funds have been carried out through cash donations, bank transfers, and physical institutions such as mosques or Islamic charitable organizations. However, as the global Muslim population becomes increasingly connected through technology, there is a growing interest in integrating digital solutions into these religious obligations (Hosseini & Abdollatif, 2014).

Cryptocurrency, due to its global accessibility and cost-effectiveness, presents a compelling alternative to traditional means of charitable giving. One of its primary advantages is that it

eliminates the need for intermediaries, allowing donors to send funds directly to recipients or charitable organizations (Habib et al., 2022). This could prove especially beneficial in situations where traditional banking services are unavailable or inefficient, such as in conflict zones, developing nations, or areas with a significant unbanked population. Moreover, cryptocurrency transactions can be executed rapidly and at a lower cost compared to conventional banking systems, making it an attractive option for cross-border donations, particularly for Muslims living in the diaspora who wish to fulfill their charitable obligations (Kayani & Hasan, 2024)

Additionally, blockchain technology, the backbone of cryptocurrency, provides an unprecedented level of transparency and accountability. Every transaction is permanently recorded on the blockchain, making it virtually impossible to alter or erase (Pineda et al., 2024). This transparency is crucial in ensuring that the funds donated for zakat, infaq, and sadaqah are used appropriately and reach the intended beneficiaries. Historically, one of the major concerns for donors has been the mismanagement or misuse of charitable funds. Blockchain's immutable records offer donors the peace of mind that their contributions are being used in a manner consistent with Islamic values and ethics (Ikhsan, 2023)

Despite these advantages, the adoption of cryptocurrency in Islamic charitable practices is not without its challenges. The most prominent among these is the question of Shariah compliance. Islamic finance is governed by principles that prohibit certain activities, such as interest (*riba*), excessive uncertainty (*gharar*), and gambling (*maysir*). Cryptocurrency's decentralized nature, lack of intrinsic value, and its association with speculative trading have led to debates among Islamic scholars regarding its permissibility (Mohammed & Sumathy, 2023). Some scholars argue that cryptocurrency embodies elements of *gharar* due to its price volatility and speculative nature, while others believe it can be permissible as long as it is used for lawful purposes and backed by tangible assets (Hassan et al., 2023)

Another critical issue is the regulatory environment surrounding cryptocurrency. While some countries have embraced cryptocurrency and enacted regulations to support its use, others have been more cautious or outright banned it (Reiners, 2020). This creates a fragmented landscape for Islamic charitable organizations seeking to integrate cryptocurrency into their operations. For instance, while countries like the United States and some European nations have established frameworks for regulating cryptocurrency, many Muslim-majority countries remain hesitant or have prohibited its use due to concerns about its stability and potential misuse (Muneeza et al., 2023)

Furthermore, the volatility of cryptocurrency poses a significant risk for Islamic charitable organizations. Cryptocurrencies such as Bitcoin and Ethereum are known for their price fluctuations, which could affect the value of donations and, by extension, the benefits received by the intended recipients (Yunita, 2022). For example, a donation made in Bitcoin might lose a substantial portion of its value if the cryptocurrency's price declines before the funds are converted into fiat currency or distributed to beneficiaries. This raises questions about how to manage the risks associated with accepting cryptocurrency for charitable purposes and whether stablecoins, which are pegged to traditional currencies, could offer a more reliable solution (Almaghrabi & Alhogail, 2022; Ratnatunga, 2021)

Given these challenges and opportunities, it is essential to explore the role of cryptocurrency in transforming the landscape of Islamic charity. This paper aims to analyze the potential of cryptocurrency in the collection and distribution of zakat, infaq, and sadaqah, focusing

on its advantages, challenges, and compliance with Shariah law. Through a review of existing literature, case studies, and discussions on the regulatory and ethical implications, this research seeks to provide insights into the feasibility of using cryptocurrency as a tool for Islamic charitable giving in the modern digital age (Fauzi et al., 2020)

In this increasingly globalized and digitalized world, Islamic charity cannot remain isolated from technological innovations. As more Muslims around the world become familiar with and adopt cryptocurrency for various purposes, its use in fulfilling religious obligations such as zakat and sadaqah may become more widespread (Rejeb, 2020). However, ensuring Shariah compliance, addressing regulatory hurdles, and managing risks will be crucial for the successful integration of cryptocurrency into Islamic charitable practices. By examining these factors, this research hopes to contribute to the growing discourse on digital solutions for Islamic charity and offer recommendations for policymakers, religious scholars, and charitable organizations seeking to navigate this evolving landscape.

2. The Role of Cryptocurrency in Islamic Charity

2.1. Advantages of Cryptocurrency for ZIS

Cryptocurrency offers several advantages that could revolutionize the practice of Islamic charity. The use of blockchain technology ensures that every transaction is recorded and verifiable, which can significantly enhance transparency in the management of zakat and sadaqah funds. One of the major criticisms of traditional charity organizations is the lack of transparency, leading to distrust among donors. Blockchain technology addresses this issue by providing a transparent ledger of all donations, thus ensuring that funds are used appropriately (Elasrag, 2019).

Another advantage is the speed and cost-effectiveness of cryptocurrency transactions. Traditional international money transfers can be slow and expensive due to intermediary banks and fluctuating exchange rates. With cryptocurrency, transactions can be completed quickly and with minimal fees, regardless of the donor's location. This feature is especially beneficial for zakat organizations aiming to collect donations from the global Muslim diaspora, making it easier to engage with donors in different countries.

Cryptocurrency can also play a role in financial inclusion by providing access to those who are unbanked or underbanked. In many developing Muslim-majority countries, a significant portion of the population lacks access to traditional banking services. Cryptocurrency can bypass these barriers, allowing more Muslims to participate in zakat and sadaqah.

2.2. Case Studies of Cryptocurrency in Zakat and Sadaqah

The growing adoption of cryptocurrency in various sectors has extended into Islamic charitable activities, including zakat and sadaqah. Several organizations and initiatives around the world have begun experimenting with cryptocurrency to address challenges related to efficiency, transparency, and access. These case studies illustrate the potential benefits, as well as the challenges that remain in implementing cryptocurrency-based solutions for Islamic charity.

2.2.1. The Muslim Charity Blockchain Initiative

One of the pioneering efforts to integrate blockchain technology into Islamic charity is the Muslim Charity Blockchain initiative. This project leverages Ethereum's blockchain to track and verify donations, ensuring transparency throughout the process. By using smart contracts, the platform automates the distribution of funds, ensuring that the zakat or sadaqah contributions are

delivered directly to the intended beneficiaries without intermediaries (Pramod S. Aswale et al., 2024).

The key advantage of this initiative is the transparency it offers. Every transaction, from the moment the donation is made to when it reaches the recipient, is recorded on the blockchain. Donors can view the entire process, which significantly enhances trust in the system. The ability to verify the flow of funds addresses one of the main concerns in charitable giving: the mismanagement or misuse of donations. Additionally, by reducing the need for intermediaries, the initiative lowers transaction costs, making it a cost-effective solution for global donations (Almaghrabi & Alhogail, 2022; Lee et al., 2018)

However, the initiative also faces challenges. Since cryptocurrencies like Ethereum are still subject to price volatility, the value of donations may fluctuate between the time they are made and when they are distributed. This instability introduces a level of financial risk that must be carefully managed, especially in the context of zakat, where a specific percentage of wealth is required to be donated under Islamic law. Moreover, the legal status of cryptocurrency varies across countries, which complicates its adoption on a wider scale (Agustina, 2023).

2.2.2. Zakat Foundation of America and Cryptocurrency Donations

The Zakat Foundation of America is one of the prominent Islamic charitable organizations that has embraced cryptocurrency as a method of donation. In 2019, the organization announced that it would accept Bitcoin, Ethereum, and other cryptocurrencies for zakat and sadaqah donations (Khan & Khan, 2020). The move was designed to cater to tech-savvy donors who prefer using digital assets and to offer a more transparent and efficient way of giving (Jadoon & Hasan, 2023)

By accepting cryptocurrency, the Zakat Foundation has expanded its donor base to include individuals who are familiar with digital currencies and are interested in using their cryptocurrency holdings for charitable purposes. The organization utilizes platforms that convert cryptocurrency donations into fiat currency almost immediately, thus avoiding the risks associated with price volatility. This approach allows the foundation to comply with zakat rules while still benefiting from the efficiency and global reach of cryptocurrencies (Jadoon & Hasan, 2023)

While the foundation has successfully incorporated cryptocurrency into its donation system, there remain concerns about the broader adoption of digital currencies in Islamic philanthropy. Regulatory hurdles in countries with strict financial regulations and the differing views of Islamic scholars on the permissibility of cryptocurrency pose ongoing challenges. Some scholars argue that because cryptocurrencies are highly speculative, they may not align with the principles of Islamic finance, which emphasize risk-sharing and the avoidance of uncertainty (gharar). However, the Zakat Foundation's use of immediate conversion to fiat currency has helped mitigate some of these concerns (Hassan et al., 2023).

2.2.3. Indonesia's Exploration of Blockchain for Zakat Distribution

Indonesia, home to the world's largest Muslim population, has begun to explore the use of blockchain and cryptocurrency for managing zakat funds. Several zakat organizations in the country have collaborated with fintech companies to develop blockchain-based platforms that aim to increase the transparency and efficiency of zakat collection and distribution. One such initiative is the Blockchain Zakat Distribution Platform, which is designed to track the collection and

distribution of zakat funds in real-time, providing transparency to both donors and recipients (Ikhsan, 2023)

In a country where a significant portion of the population is unbanked, blockchain and cryptocurrency offer a promising solution to reach a broader base of donors. Through the use of mobile applications and blockchain technology, these platforms can facilitate zakat payments from individuals in rural areas who lack access to traditional banking services (Omar & Khairi, 2021). By leveraging blockchain, these platforms ensure that zakat is distributed to eligible recipients in a timely and transparent manner (Cecilia Chapiro, 2021).

Despite these promising developments, the use of cryptocurrency in Indonesia's zakat system is still in its infancy. The Indonesian government has taken a cautious stance on cryptocurrency, issuing regulations that limit its use for certain transactions. Furthermore, the volatility of cryptocurrency remains a concern for zakat organizations, as it complicates the process of ensuring that the proper amount of zakat is collected and distributed according to Islamic law. Nevertheless, these initial experiments with blockchain technology demonstrate the potential for digital solutions to improve zakat management (Kassim et al., 2023).

2.2.4. Binance Charity: Cryptocurrency Donations for Sadaqah

Binance Charity, the charitable arm of the global cryptocurrency exchange Binance, has facilitated donations of cryptocurrency for various charitable causes, including sadaqah. Through its platform, Binance Charity enables individuals to donate cryptocurrency for humanitarian relief, education, and health projects in underserved communities around the world. In recent years, the platform has also started accepting donations for Islamic charitable giving, including sadaqah (Binance academy, 2019).

The unique advantage of Binance Charity is that it operates on a fully transparent, blockchain-based system. Every donation is recorded on the blockchain, allowing donors to track their contributions and see exactly how the funds are being used. For sadaqah, which is voluntary and meant to be given at any time, cryptocurrency offers an efficient way to provide immediate relief to communities in need (Binance, 2023). The platform's ability to facilitate cross-border donations without the usual delays and fees associated with international money transfers makes it a convenient tool for Muslims looking to give sadaqah in a global context (Binance, 2023)

One of the challenges Binance Charity faces is the volatility of cryptocurrency prices, which can affect the final value of donations. Although the platform allows donors to choose from several cryptocurrencies, price fluctuations in popular digital currencies like Bitcoin and Ethereum mean that the actual value of a donation can change significantly over a short period. To address this, Binance Charity has started exploring the use of stablecoins, which are pegged to fiat currencies like the US dollar, to reduce the risks associated with price volatility (Binance academy, n.d.). Several organizations have begun accepting cryptocurrency donations for zakat and sadaqah.

3. Challenges of Cryptocurrency in Islamic Charity

Despite the growing interest and potential benefits of integrating cryptocurrency into Islamic charitable practices, several challenges remain. These challenges include regulatory hurdles, concerns over Shariah compliance, the volatility of cryptocurrency, and the overall acceptance by the Muslim community and religious authorities. Addressing these challenges is crucial for the broader adoption of cryptocurrency in zakat, infaq, and sadaqah.

3.1. Regulatory Challenges

One of the most significant obstacles to the widespread adoption of cryptocurrency in Islamic charity is the regulatory environment. The legal status of cryptocurrency varies greatly across

countries. Some countries, particularly in the West, have embraced cryptocurrency and introduced regulatory frameworks to manage its use, while others, particularly in the Islamic world, remain skeptical or have outright banned it. For instance, countries such as Saudi Arabia and Pakistan have imposed restrictions on cryptocurrency transactions due to concerns about financial stability, security, and the potential for misuse in illegal activities (Khan, 2023)

The lack of a unified global regulatory framework creates a fragmented landscape, making it difficult for Islamic charitable organizations to operate seamlessly across borders. Charitable organizations operating in countries where cryptocurrency is banned or heavily regulated face challenges in accepting and distributing cryptocurrency donations. Additionally, even in countries where cryptocurrency is allowed, there is often a lack of clarity regarding how it should be taxed or regulated in the context of charitable giving. These regulatory uncertainties hinder the full adoption of cryptocurrency as a tool for Islamic charity (Wiwoho et al., 2024).

3.2. Shariah Compliance Concerns

One of the primary concerns surrounding the use of cryptocurrency in Islamic charity is whether it complies with Shariah law. Islamic finance is governed by strict principles that prohibit certain activities, such as interest (*riba*), excessive uncertainty (*gharar*), and gambling (*maysir*). Cryptocurrency's decentralized nature, lack of intrinsic value, and volatility have led to debates among Islamic scholars regarding its permissibility.

Some scholars argue that cryptocurrencies like Bitcoin embody elements of *gharar* due to their high price volatility and speculative nature. The value of cryptocurrencies can fluctuate dramatically within short periods, which introduces uncertainty that is typically avoided in Islamic finance (Khan, 2023). For example, if a zakat donation is made in Bitcoin and the value of Bitcoin drops significantly before the donation is converted to fiat currency, the recipient may receive much less than the donor intended. This speculative risk is similar to gambling, which is prohibited in Islam.

On the other hand, some scholars believe that cryptocurrency can be permissible under Islamic law, as long as it is used for lawful purposes and is backed by tangible assets or recognized by a governing authority. These scholars argue that the use of blockchain technology to ensure transparency and accountability aligns with Islamic principles of financial integrity and social justice. However, this remains an area of ongoing debate, and the lack of consensus among scholars adds to the uncertainty surrounding the use of cryptocurrency for Islamic charitable purposes (Khan, 2023).

3.3. Volatility and Risk Management

The volatility of cryptocurrency is one of the most significant challenges for its use in Islamic charity. Cryptocurrencies such as Bitcoin and Ethereum are known for their rapid price fluctuations, which can significantly impact the value of donations. For example, if a zakat donation is made in Bitcoin and the price of Bitcoin decreases before the funds are distributed, the value of the donation may be much lower than originally intended. This could lead to inefficiencies in fulfilling the religious obligation of zakat, where a specific percentage of wealth is required to be given (Jalal & Che Abdullah, 2024).

To manage this risk, some charitable organizations that accept cryptocurrency donations immediately convert the digital assets into fiat currency. This approach helps mitigate the effects of price volatility, but it also eliminates some of the benefits of using cryptocurrency, such as avoiding high transaction fees and ensuring fast cross-border transfers (Muneeza et al., 2023). Stablecoins, which are cryptocurrencies pegged to the value of traditional currencies like the US

dollar, have been proposed as a potential solution to address volatility concerns. However, stablecoins are still a relatively new concept, and their use in Islamic charity has not been widely tested (Muneeza et al., 2023).

3.4. Acceptance and Awareness in the Muslim Community

Another challenge to the adoption of cryptocurrency in Islamic charity is the general level of awareness and acceptance within the Muslim community. Cryptocurrency, while growing in popularity, is still a relatively niche form of currency that many people are unfamiliar with. A significant portion of the Muslim population may be hesitant to use cryptocurrency due to concerns over its legitimacy, security, and compliance with Islamic principles (Hassan et al., 2023)

In addition to the lack of awareness, there is also a lack of infrastructure to support the widespread use of cryptocurrency in Muslim-majority countries. Many regions in the Islamic world have limited access to reliable internet services and digital financial systems, which makes it difficult to implement cryptocurrency-based solutions for zakat, infaq, and sadaqah. Efforts to raise awareness about cryptocurrency and its potential benefits for Islamic charity, as well as investment in the necessary infrastructure, will be critical to overcoming this challenge (Hashem, 2024) .

4. Social and Economic Implications

Social and Economic Implications

The integration of cryptocurrency into Islamic charitable practices, such as zakat, infaq, and sadaqah, has significant social and economic implications. As digital currencies continue to evolve, their adoption in philanthropy presents both opportunities and challenges for Muslim communities worldwide. The following section explores how cryptocurrency can impact financial inclusion, transparency, donor behavior, and overall economic development, especially in underbanked regions. However, it also highlights concerns about economic stability and the potential for financial inequality in this emerging digital economy.

4.1. Financial Inclusion

One of the most profound social implications of integrating cryptocurrency into Islamic charity is its potential to promote financial inclusion. According to the World Bank, approximately 1.7 billion adults globally are unbanked, meaning they lack access to traditional financial services such as banking, credit, and digital payments. A significant portion of this population resides in Muslim-majority countries, where access to banking services may be limited due to geographic, infrastructural, or political constraints (World Bank Group, 2024)

Cryptocurrency offers an alternative means of facilitating charitable donations for zakat, infaq, and sadaqah. Since digital currencies can be transferred and received without the need for a traditional bank account, they provide unbanked individuals with an opportunity to participate in financial transactions, including Islamic charitable giving. This is particularly important in regions where individuals may be unable to donate through conventional methods due to a lack of infrastructure (Hassan et al., 2023).

Furthermore, blockchain technology allows for secure, low-cost transactions across borders, making it easier for Muslims in the diaspora to contribute to charitable causes in their home countries. This increased accessibility not only encourages more participation in Islamic charitable giving but also extends the benefits of these donations to a broader, more diverse group of recipients (UN, n.d.).

4.2. Transparency and Trust in Charitable Organizations

The issue of transparency has long been a challenge in the charitable sector, with concerns about the proper management and distribution of funds. Blockchain technology, the backbone of

most cryptocurrencies, offers a potential solution to these concerns by providing a transparent and immutable ledger for all transactions. Every donation made using cryptocurrency can be tracked from the donor to the recipient, with every step of the process recorded on the blockchain (Wiwoho et al., 2024)

This level of transparency can help build trust between donors and Islamic charitable organizations. Historically, some donors have been hesitant to contribute to certain charities due to concerns about financial mismanagement or fraud. Blockchain's transparency reassures donors that their zakat, infaq, and sadaqah contributions are being used for their intended purposes and are reaching those in need. This, in turn, could lead to an increase in the overall level of charitable donations as confidence in the system grows (Benthall, 1999).

Moreover, for charitable organizations, the ability to provide a verifiable record of how funds are spent can improve accountability and enhance their reputation. This is especially important for zakat institutions, which must ensure that the wealth is distributed according to Islamic principles.

4.3. Changing Donor Behavior and Global Connectivity

The introduction of cryptocurrency into Islamic charity is also likely to influence donor behavior, particularly among younger, tech-savvy Muslims who are more familiar with digital currencies. Millennials and Gen Z individuals, who have grown up with the internet and digital technologies, are more likely to adopt and trust cryptocurrencies than older generations. By offering cryptocurrency as an option for zakat and sadaqah donations, Islamic charitable organizations can engage with this demographic, potentially leading to higher levels of participation and giving (Oktavendi & Mu'ammal, 2022).

In addition to changing individual donor behavior, the global connectivity enabled by cryptocurrency donations can facilitate greater collaboration between Islamic charitable organizations. Charities operating in different countries can pool resources more easily, allowing for the more efficient distribution of funds to where they are needed most. This could be especially beneficial during times of crisis, such as natural disasters or humanitarian emergencies, where immediate financial support is critical (Muneeza et al., 2023).

4.4. Economic Development and Social Welfare

Cryptocurrency has the potential to support economic development and social welfare initiatives in regions where financial infrastructure is lacking. Through zakat and sadaqah, charitable funds can be used to support the development of schools, hospitals, and small businesses, providing essential services and job opportunities in underserved communities (Widiastuti et al., 2022). Cryptocurrency facilitates this by providing a fast, efficient, and low-cost way to transfer donations to these regions, bypassing traditional banking systems that may be slow or unavailable (Unal & Aysan, 2022).

For example, zakat funds raised through cryptocurrency could be directed toward microfinance projects that help alleviate poverty by providing small loans to entrepreneurs (Mohd Nor et al., 2021). By supporting small businesses, these projects can stimulate local economies and improve the quality of life for individuals and families. Additionally, the transparency offered by blockchain technology ensures that these funds are used effectively, further contributing to the social and economic development of the region (Diallo & Gundogdu, 2021).

4.5. Economic Inequality and Risks

While cryptocurrency offers several social and economic benefits, it also raises concerns about increasing financial inequality and economic instability. The volatility of cryptocurrencies such as

Bitcoin and Ethereum can result in significant fluctuations in the value of charitable donations. This unpredictability may disproportionately affect the poorest recipients of zakat and sadaqah, who rely on these donations to meet their basic needs. If the value of cryptocurrency drops before it can be converted to fiat currency or used for charitable purposes, the intended beneficiaries may receive less than expected (Jalal & Che Abdullah, 2024).

Furthermore, the increasing adoption of cryptocurrency could contribute to economic inequality between those who have access to digital financial tools and those who do not. In many Muslim-majority countries, access to the internet and digital technologies remains limited, especially in rural areas. As a result, only a small portion of the population may benefit from cryptocurrency donations, while others are excluded from the potential economic advantages it offers (Adjasi et al., 2023; Anakpo et al., 2023; Gupta et al., 2024; Saiedi et al., 2021).

5. Conclusion

The use of cryptocurrency in Islamic charity offers both promising opportunities and significant challenges. On the one hand, blockchain technology can increase transparency, reduce transaction costs, and expand the reach of zakat, infaq, and sadaqah to a global audience. On the other hand, concerns about Shariah compliance, regulatory hurdles, and the volatility of cryptocurrency must be addressed before widespread adoption can occur. As Islamic charitable organizations continue to explore these digital solutions, further research and dialogue among scholars, financial experts, and regulatory bodies will be essential in determining how best to integrate cryptocurrency into the traditional practices of Islamic charity.

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