

EXPLORING ZAKAT DISTRIBUTION VIA BLOCKCHAIN IN INDONESIA PERSPECTIVE OF MASLAHAH MURSALAH WAHBAH ZUHAILI

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Abstract

To achieve the goal of increasing the effectiveness and efficiency of zakat services, it is very important to have a strong security system in zakat administration. This includes the accurate distribution of zakat money to mustahiq. Blockchain technology is a digital data storage system consisting of several servers, which serves this purpose. This article explains blockchain zakat in Indonesia when viewed with masalah mursalah according to Wahbah Zuhaili. This study uses a qualitative descriptive method and its type is library research (literature review) with an ushul fiqh approach. The data analysis techniques used in this article are data reduction, data presentation, and conclusion. The results of this study state that Blockchain provides a stimulus for optimizing zakat fund management through basic benefits (masalah ad-dharuriyah) in the form of maintaining the religion of muzakki to fulfill obligations (hifdz ad-din), and protection of property. up to mustahiq (hifdz al-mal), and maintaining the good name of zakat institutions from slander in zakat governance due to the openness of the system (hifdz al-'ird). The high scope of transactions recorded in the blockchain system, including the collection and distribution of zakat, is smoothness in realizing the welfare of mustahiq and helping the country's economy so that government contribution is needed in supporting the progress of zakat management with blockchain technology.

Keywords: Blockchain, Masalah Murlah, Zakat

INTRODUCTION

Zakat is one of the five pillars of Islam, which means it must be fulfilled by every Muslim. Zakat also plays an important role in Islamic economics and social finance. On the other hand, zakat also plays a role in the distribution of income to ensure the inclusiveness of the entire community, zakat functions as an instrument for controlling individual wealth so that it flows productively (Ashurov, 2020). Zakat, together with waqf, infaq, and sadaqah as Islamic social financial instruments, ensures a sustainable economy to achieve a stable and equitable distribution of wealth and income in an economic, monetary, and financial system (Ascarya & Yumanita, 2018).

To realize this, it is also supported by laws and regulations in Indonesia which state that zakat can be used for productive efforts in the context of handling the poor and improving the quality of the community. In Indonesia itself, the majority of the population adheres to Islam, reaching 229.62 million people with a percentage of 87.2%. (Lhkpn-Brin e-PPID, nd) With these resources, based on data submitted by BRIN: the potential for zakat in Indonesia in 2023 is 327 trillion, while the realization is less than 10%, only 20 trillion. From the data on the potential for zakat, it would be a shame if this potential could be used to overcome the problem of poverty in Indonesia. Based on the data, the poverty rate in Indonesia can be seen from the picture below (Data Division & BAZNAS, 2021):

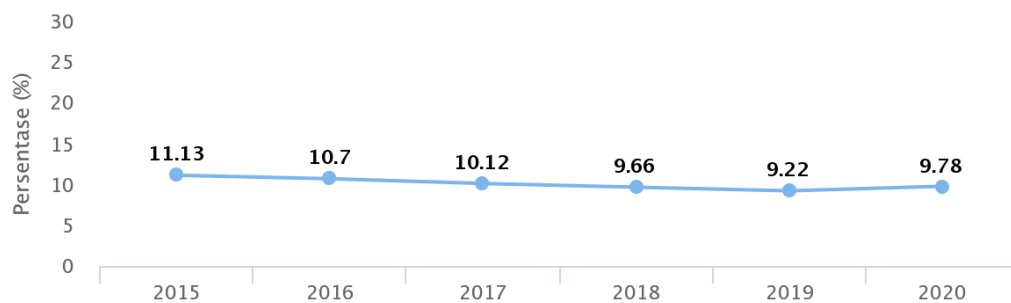


Figure 1
Development of the Percentage of Poor Population in Indonesia 2015-2020

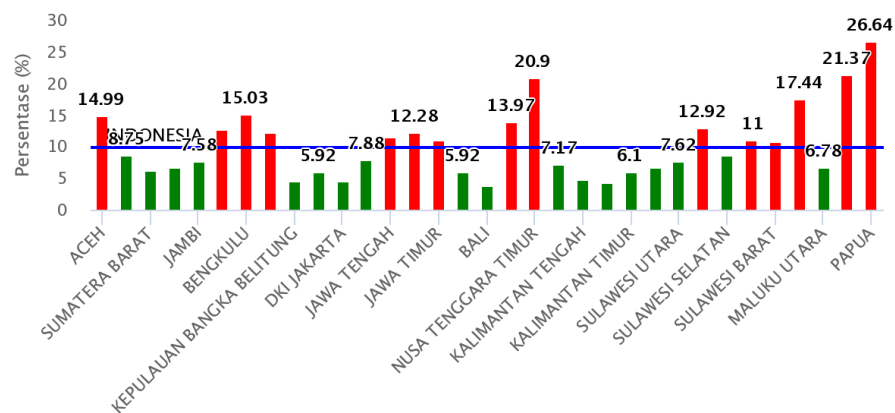


Figure 2
Relative Position of Percentage of Poor Population in Indonesia in 2020

From the data mentioned, social and economic disparities are still a problem in this country. This must be handled effectively, efficiently, and appropriately so that social and economic disparities do not occur and poverty rates can be reduced significantly. Effective and efficient handling must be balanced with the application of technology in its implementation.

The presence of blockchain technology has not only emerged as a milestone in the history of digital currency or cryptocurrency but has now evolved and developed in the digital economy and even penetrated the form of digital associations or societies (Alaeddin, 2021).

Blockchain is a decentralized digital data storage technology that operates on multiple computers. Blockchain technology allows the replication and verification of data generated by one server on another server. It deals with the sequence of transaction information exchanged between users and stored in blocks. Each block contains a certain amount of data that is secured using cryptographic hashing. BAZNAS (National Zakat Agency) in Indonesia has implemented this blockchain technology to administer, distribute, and manage zakat. This technique was introduced at the 4th International Zakat Conference ICONZ 2020 which took place in 2020. BAZNAS RI has successfully integrated blockchain technology at an early stage (The 4th International Zakah Conference ICONZ 2020 Produces Nine Resolutions, 2020).

Blockchain, when implemented, adheres to the principles of transparency, efficiency, and sustainability. It has the potential to prevent misuse, misplacement, loss,

theft, and other issues that can affect Zakat collection. In addition, it can help reduce operational costs. This system facilitates the reduction of processing costs related to receiving payments from muzakki and distributing them to mustahiq, thus optimizing the funds collected, especially at the global level (Attar, 2023).

This is certainly expected to be a solution because the factors causing zakat collection in Indonesia are not yet optimal. There are at least three factors that cause the low collection of national zakat funds. First, the low awareness of muzakki to pay zakat, low public trust in zakat management organizations, both government (BAZNAS) and private (LAZ), and the behavior of zakat payers who are still very charitable, namely short-term, and interpersonally oriented. Second, the basis of zakat that is explored is still concentrated on certain types of zakat, such as zakat fitrah and professional zakat. Third, the incentive for zakat payers to pay zakat is still low (Ascarya & Yumanita, 2018).

In this case, in line with Lukman Hamdani's opinion in his research, it is explained that the implementation of zakat management with blockchain is of high quality, efficient, accountable, and professional in distributing zakat to asnaf (Hamdani, 2020). Blockchain technology is the answer to time and financial efficiency, as well as cryptocurrency technology, making Muzakki more confident in managing zakat carried out by amil because all data sources are transparent and traceable. According to Siti Nabihah, et al., the implementation of zakat adapts to technological advances. Zakat institutions now realize that incorporating technology into zakat management can improve the system and provide better services (Esrati et al., 2018). In addition, this study shows that both muzakki and mustahiq have confidence in technology and view its use as providing benefits to each beneficiary. Moreover, the use of technology affects the intentions of its users. However, users consider blockchain difficult to use. This may be due to the respondents' limited understanding of blockchain technology compared to other technologies.

In Dhiaeddine Rejeb's opinion, there are positive points and benefits in implementing zakat management with blockchain technology and smart contract components (Rejeb, 2020). However, he also stated the need for explanations from scholars and final decisions regarding sharia from several technical aspects such as smart contracts and cryptocurrencies, so that the development of the potential for zakat management in the future will be better or for other branches of Islamic finance (Rejeb, 2020).

In the context of zakat and sharia economics, Wahbah Zuhaili's *masalah mursalah* perspective supports the application of modern technologies such as blockchain to increase efficiency, transparency, and accessibility in zakat distribution. The authors' interest lies in research on the application of blockchain technology in Indonesia, considering the background of the explanation given and previous research on technological advances in zakat payments and the challenges associated with the application of Blockchain as a payment method, especially from the review of Wahbah Zuhaili's *Maslahah Mursalah*.

RESEARCH METHOD

This study uses a descriptive qualitative method to explore more deeply the application of blockchain technology in zakat management. The focus of the study is to identify challenges, opportunities, and perceptions of various stakeholders related to the use of blockchain in zakat management, especially in Indonesian zakat institutions.

Research Method Stages

Data collection: Primary data were collected through in-depth interviews with zakat practitioners, such as administrators of zakat institutions, BAZNAS, and zakat recipients (*mustahiq*). Interviews were conducted in a semi-structured manner to provide flexibility in exploring topics.

Data source: Secondary data will be obtained from literature related to the application of blockchain technology in zakat in various countries, as well as annual reports on zakat management in Indonesia.

Data analysis: Thematic analysis was conducted to identify patterns, themes, and key issues emerging from interviews and secondary data sources. Data were compiled and analyzed using coding techniques which were then interpreted qualitatively to understand the impact of blockchain technology on zakat management.

Data Validity: The triangulation technique is applied to validate the research results. Data from interviews will be compared with secondary data and literature to ensure consistency and increase the reliability of the research results.

RESULTS AND DISCUSSION

One of the main factors of the occurrence of Sharia economic inequality is because of zakat which is not paid properly. Comprehensively, the potential for zakat in Indonesia

reaches Rp. 233.8 trillion/year (BAZNAS Research Center Strategy, 2019). However, nationally, the zakat funds collected in 2020 only reached IDR 12.7 trillion/year (BAZNAS, 2021). At that figure, the zakat fund collection increased by 24.5% compared to the previous year. The data exposure above is the basis for the need for a technology called blockchain to support the optimization of zakat fundraising from muzakki. The following is a zakat management model with blockchain technology that organizes muzakki, mustahiq, and zakat (amil) institutions.

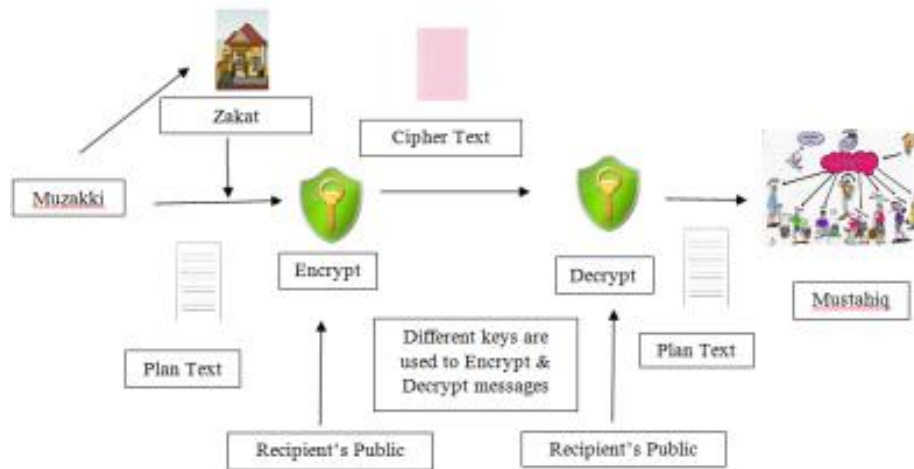


Figure 3
Blockchain Technology Zakat Model

The use of blockchain by zakat institutions makes it easier for muzakki to get a permanent account in a network. Then the smart contract will contain an agreement between the zakat institution and muzaki to carry out automatic actions in the form of withdrawing zakat funds in the form of cryptocurrency if it has reached the nisab or haul. Blockchain will connect muzakki with the mustahiq database account at the zakat institution. Mustahiq receives zakat funds in the form of Tether cryptocurrency which is then transferred to paper money on the exchange platform, with the parity "1 Tether = 1 Dollar" (Rejeb, 2020).

The distribution of zakat funds will be easily monitored by the muzakki, while the zakat institution only plays a role in providing information via a database regarding the status of zakat funds that have reached the nisab or haul with the zakat value that must be paid (Beik, 2021). Therefore, the blockchain database must always be updated, including the status of a mustahiq who has died or changed to a muzakki.

There are at least two passwords attached to the blockchain zakat cryptography method so that no one can change the password. If at any time there is a change, the encryption and other descriptions will lock and update each other, so that they are not affected by just one key item. Thus, zakat management using blockchain will be easy to track, and audit, and cannot be changed which is a major advantage to ensuring the success of the zakat fundraising system (Hussein Elasrag, 2019).

Blockchain creates an opportunity for digitizing information about zakat funds stored in a database as transparent and decentralized data with a peer-to-peer network that is completely secure and protected from deletion, interference, and mutation, making it difficult to diverge and falsify data because zakat funds will be easily tracked in the blockchain ledger.

Blockchain capabilities through zakat tracking consensus can increase the trust of prospective muzakki to deposit zakat funds. This technology also creates opportunities for zakat institutions to maximize their efforts in promoting, collecting, and distributing zakat efficiently, quickly, and on target. The potential for efficient zakat with a blockchain usage strategy is expected to be able to realize the welfare of asnaf and change the economic status of mustahiq to muzakki.

In addition to the opportunities mentioned above, the challenges that need to be faced in using blockchain are related to privacy issues due to decentralization. Although every individual who contributes to zakat can view zakat data, which is stored in an anonymous block, the lack of a trusted third party to guarantee the security of this data results in the potential for leakage of personal information previously recorded in each zakat transaction.

Access to the Zakat database with blockchain technology requires a direct internet connection for 24 hours, where each database will always experience transaction recording updates. Of course, this creates a very large need for electricity capacity because the mining process on a special node will combine all zakat transactions that have occurred in the last 10 minutes into one block by consuming 1 megabyte of energy per block (Ana Reyna, et. Al, 2018). The main fuels for power plants currently are coal and petroleum which produce carbon dioxide (CO₂) compounds that have an impact on environmental pollution. The greater the use of electrical power, the higher the level of environmental pollution that occurs.

Another challenge that must be faced in managing zakat using blockchain can be seen from the infrastructure aspect. Several regions in Indonesia are still constrained by internet

network infrastructure and the distribution of sophisticated digital devices. The lack of literacy and human resources capable of carrying out the complex functions of zakat with blockchain technology is considered not to follow the use of other technologies.

Regulations that do not meet the requirements in terms of both fiqh and formal law in Indonesia are considered to need more attention, considering that zakat is a fundamental unit in Islam so more innovation is needed to formulate the legality of the entire concept of zakat in blockchain using bitcoin and cryptocurrency items. Even with the anonymity features provided in blockchain and the lack of regulation, there is still the possibility of using it for illegal activities.

The awareness of muzakki to inform real property data is also the biggest challenge in collecting zakat, both traditionally and based on blockchain technology. Given that zakat institutions only have the competence to check and inform the nominal zakat that must be issued based on muzakki reports without having more authority to monitor the real assets owned.

Zakat is a fundamental item in Islamic philanthropy. Zakat is an obligation for a Muslim who has met the criteria as a muzakki to distribute some percentage of his wealth to the mustahiq group. Judging from the effectiveness of traditional zakat management, there is broad transparency in the distribution of funds by zakat management institutions, which causes distrust of muzakki (Santoso, 2023).

The non-disclosure of the distribution of zakat funds is usually used by certain individuals to carry out negative actions. The issue of the distribution of social funds to finance the activities of terrorist groups both at home and abroad in the name of the jihad movement is a valuable evaluation for the management of social funds such as zakat to be equipped with blockchain technology with a zakat tracking system.

Education and socialization regarding the obligation of zakat which is certainly supported by the availability of blockchain technology by zakat institutions as a persuasive effort is considered important to attract sympathy and at the same time foster public trust to immediately pay zakat. The existence of socialization regarding zakat tracking raises the spirit of zakat with the hope that the assets issued can be distributed in a trustworthy manner to the asnaf groups who are entitled to receive it efficiently, quickly, transparently, and on target.

The function of social welfare in the scope of Islam is adopted from the paradigm of socio-economic improvement. Social problems can be identified through the existence of *masalah* and *mafsadah* in a certain social condition. Development of zakat funding strategies through the socialization of blockchain use for the growth of zakat fund collection in Indonesia. The parameters of *masalah* or zakat losses using blockchain technology can be analyzed from several argumentative aspects (Wahbah al-Zuhaili, 2001):

There are several positive implications of using blockchain in managing zakat in Indonesia. Blockchain facilitates and makes it easier for the community, especially *muzakki*, to fulfill the obligation to pay zakat effectively and efficiently online, of course, this aspect has an impact on a person's welfare in upholding the goals of sharia to protect religion (*hifdz ad-din*) as stated in the Al-Quran [2]: 267 and Al-Quran [9]: 103, and others. The use of blockchain is one of the efforts to protect assets (*hifdz al-mal*) to maintain the stability of the many zakat funds collected to be distributed by *mustahiq* so that there is an equal distribution of the Muslim economy which has an impact on social welfare in Indonesia (Zulfikri, 2023).

Smart contracts considered a solution to maintain the honor or good name (*hifdz al-'ird*) of zakat institutions that affect the electability of state financial institutions where blockchain with this technology has advantages over traditional zakat management in the form of monitoring the distribution of zakat funds from *muzakki* to *mustahiq* accounts. The openness of the system in distributing zakat is a solution to protect the identity of the authorities against the tendency of public prejudice against deviations that are considered to occur in the zakat institution environment.

Mobilization of zakat transactions in blockchain technology ledger recording is possible to optimize the potential for collecting zakat which should be obtained and felt by the wider community (Nordin, 2021): Protection of religion, property, and honor to create basic welfare (*masalah ad-dharuriah*) for *muzakki*, *mustahiq*, and zakat institutions has an impact on broad-based welfare including national economic growth (*masalah al-'amm*).

The benefits displayed by zakat using blockchain technology include large electricity consumption resulting in the mining of fossil fuels as the main material for power plants in large quantities. However, these benefits can be anticipated with alternative power plants that are more environmentally friendly, such as the use of solar panels to boost electrical power.

Human resources that are less qualified in utilizing zakat technology can also be anticipated through maximum education and socialization from zakat institutions (Rabbani, 2021). Considering that the use of technology has become a basic human need in the industrial era 4.0, the problem of minimal knowledge in operating blockchain-based zakat can be overcome through socialization actions both offline and online (Rabbani, 2022).

Changes in the conditions of society in the digital era have a significant impact on the dynamics of zakat management in Indonesia, thus requiring a sharp discussion on the concept of blockchain zakat from both legal experts and scholars. The results of this study can be used as a philosophical and sociological basis to be used as a legal product outlined in formal regulations regarding zakat technology. Government policies can be used as a legal umbrella in guaranteeing the personal data of muzakki and mustahiq from predicted privacy leaks. Regulations are considered the gateway to improving zakat management in Indonesia, so they need to be formulated immediately to create benefits as stated in the rules of *ushul fiqh tasharruful imam 'ala ra'iyah manuthun bil maslahah* (leader's actions towards the people must be based on considerations of benefits).

CONCLUSION

Conceptually, the use of blockchain in zakat management in Indonesia can bring greater and more realistic benefits compared to the mafsadah which is still suspected as explained in the concept of *maslahah mursalah* from Wahbah Zuhaili's perspective. Blockchain has real benefits in the form of ease in the funding process from the hands of muzakki to the distribution of zakat funds in a trustworthy manner to mustahiq, where muzakki immediately monitors the existence of funds and their movements through zakat tracking technology supported by smart contracts. Blockchain provides a stimulus for optimizing zakat fund management through basic benefits (*maslahah ad-dhauriyah*) in the form of preserving the religion of muzakki to fulfill their obligations (*hifdz ad-din*), protecting property to the hands of mustahiq (*hifdz al-mal*), and maintaining the good name of zakat institutions from the slander of zakat governance due to the openness of the system (*hifdz al-'ird*). The high scope of transactions recorded in the blockchain system includes the collection and distribution of zakat to facilitate the realization of mustahiq welfare and help the country's economy. Therefore, government contribution is very much needed to support

the progress of zakat management with blockchain technology, one of which is through the creation of formal regulations to provide legal certainty and protection for all parties in the dynamics of zakat technology.

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