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BLOCKCHAIN ZAKAT IN LAW PERSPECTIVE AND ITS IMPLICATION ON ZAKAT MANAGEMENT

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Abstract: The main aim of distributing zakat is to provide the broadest possible benefits to those in need whose basic needs, such as clothing, food, and shelter, are not yet met. One effort that can be used to optimize the management and distribution of zakat funds is using blockchain technology. This research is a qualitative descriptive with library research. The method used in this research is a normative legal research methodology with a conceptual approach based on the theories of Economic Analysis of Law and Theory of Change. This research shows that Islamic and normative laws provide opportunities to develop blockchain zakat while prioritizing effective and efficient Sharia principles and legal principles. If applied to zakat institutions, blockchain has various positive impacts, especially in managing zakat funds. Some of the positive effects of using blockchain technology include transparency and accountability, systematic fund tracking, smart contracts with automation methods, efficient administration costs, encrypted security features, cross-border network access, and others. These various advantages will undoubtedly impact increasing public trust in zakat institutions, thereby optimizing the potential of zakat funds and producing a much more significant contribution to the distribution and utilization of zakat funds to mustahik and the wider community.

Keyword: *Blochchain; Technology; Zakat; Zakat Institution*

A. Introduction

Zakat, the third pillar of Islam and a religious obligation, significantly contributes to society's socio-economic welfare (Muneeza et al., 2023). The main aim of distributing zakat is to provide the broadest possible benefits to those in need whose basic needs, such as clothing, food, and shelter, are not yet met. Zakat has an essential role in establishing social justice. Through zakat, equality and economic development can be achieved. The purpose of zakat is not only limited to religious obligations but also as a social responsibility to society (Alshater et al., 2021).

Based on BAZNAS data, Indonesia's zakat potential in 2020 reached 327.6 trillion, with just 71.4 trillion realized or the equivalent of 21.79% (Puskas BAZNAS, 2021). This figure is certainly a large number, but if it can be realized, it will significantly impact the wider community. Therefore, more intensive and strategic efforts are needed to collect and distribute zakat so that this potential can be realized optimally. One effort can be made using digital technology, such as blockchain, to increase transparency and accountability in zakat management. This way, zakat can more effectively alleviate poverty, reduce economic disparities, and support sustainable development in Indonesia.

No	Objek Zakat	Potensi Zakat (Triliun Rupiah)
1	Zakat Pertanian	19,79
2	Zakat Peternakan	9,51
3	Zakat Uang	58,76
4	Zakat Penghasilan dan Jasa	139,07
5	Zakat Perusahaan	144,5*
	Total Potensi Zakat	**327,6**

Figure 1. The Potential of Zakat in Indonesia

To optimize the management of zakat funds, zakat institutions can use technology because it is very influential in increasing the effectiveness of zakat fund distribution (Yusuf et al., 2022). Technology is not tied to any religion; therefore, Islam views that technology can be used as long as it provides benefits and does not violate sharia principles (Muneeza & Mustapha, 2019). However, technological developments that are growing quite rapidly also require a clear legal basis to run according to sharia rules and principles. The complexity of the times with all the economic problems that continue to develop requires Muslims to have an excellent understanding to produce laws that can accommodate the interests of society. This must, of course, be based on established sharia rules and be in line with Islamic values (Hassan et al., 2023).

In this context, blockchain, as one of the latest technologies, is a product of technological developments resulting from innovation in the financial technology sector, whose implementation requires a clear legal umbrella, both from the perspective of Islamic law and normative law. Blockchain has various advantages that offer a more transparent and secure system and mechanism so that irresponsible parties do not misuse it (Hamdani, 2020). Blockchain has tremendous opportunities as a product that provides guarantees and certainty for every party making a transaction. Including in the management of zakat funds, blockchain technology can function as a system that provides various easy access, both from the perspective of muzakki, mustahik, and zakat institutions that act as zakat amil (Nor et al., 2021). However, the application of blockchain in managing zakat funds is still a matter of debate among researchers. Several studies have examined the role of blockchain in the potential management of zakat funds.

Urfiyya and Sulastiningsih (2021) argue that the potential use of blockchain technology can help overcome the country's economic problems by alleviating poverty and achieving social justice. Millatina et al. (2022) also argue that blockchain zakat increases transparency with the location of amil and muzakki in the same blockchain system, allowing for monitoring and affordability. In addition, Septianda et al. (2022) conclude that blockchain is an innovation in its use in the Islamic financial sector. These uses include smart contract adaptation, zakat collection, expanding the halal supply chain that is productive, effective and efficient, as well as maximizing sukuk retail. Hamdani also believes blockchain technology can be applied in national zakat institutions, both Baznas and Laznas. This use can significantly change the national zakat system (Hamdani, 2020).

To the best of the authors' knowledge, only a little literature specifically discusses blockchain zakat from the perspective of Islamic law and the legal system in Indonesia because blockchain zakat is relatively new in the context of Islamic finance and zakat administration. Therefore, the authors try to examine Islamic law and normative law views on blockchain zakat and explore and analyze the potential of blockchain technology in managing zakat funds, especially for zakat institutions.

The results of this research can contribute to managerial development. Some of these contributions include, this research emphasizes the importance of utilizing blockchain technology in optimizing the zakat funds collected. This must be a consideration for policymakers in regulating legal umbrellas. Second, the results of this research can be a consideration for zakat institutions in managing and optimizing zakat funds. Moreover third, it is hoped that this research can be an alternative to solving the problem of poverty and contribute to improving the welfare of mustahik.

B. Method

This research is qualitative descriptive research with the type of library research. The method used in this research is a normative legal research methodology using legal analysis, which places law as a building block of ethical structures (namely regarding principles, ethics, regulations from statutory provisions, court decisions, agreements, and doctrine) (Fajar & Achmad, 2017). This research also uses a conceptual approach based on the theories of Economic Analysis of Law and Theory of Change.

C. Result and Discussion

Blockchain Zakat in the Perspective of Islamic Law and the Indonesian Legal System

Current technological developments cannot be avoided and require everyone to adapt quickly. These developments have a considerable impact, not least in the legal sphere. One of the technologies currently developing is blockchain, which has changed the paradigm of storing and exchanging information. Blockchain is a decentralized distribution technology that provides a safe and transparent mechanism for recording and verifying transactions. It is important as a decentralized, transparent technology with high data security (Megawati et al., 2023).

Benedetta & Carullo (2021) argue that blockchain is a series of blocks containing verified data and transactions. Additionally, Custers & Overwater (2019) define blockchain as a public ledger managed by a group of computers that function as nodes in a network. Riswandi (2022) also explained that blockchain is a new application pattern that combines distributed data storage, peer-to-peer networks, consensus mechanisms,

encryption algorithms, and other technologies. This technology can develop a consensus mechanism for joint governance and operations.

In its development, blockchain has entered and influenced the legal perspective by providing macro influence. According to Lase et al. (2021), two things must be considered. First, ethics, regulations, and laws that apply to technology must be considered. Second, the use of technology to improve legal services, the justice system, and the law itself must be considered. This influence ultimately gave rise to a new principle, *lex cryptographic*. *Lex cryptograhia* is a new term that has emerged and been formulated in the field of technology law as a precursor that regulators or rule makers can use to create the latest legal framework for regulating blockchain technology (Subramanyam, 2020). This principle focuses on the efforts of individuals, states, and markets to harmonize competing power dynamics and try to find the right balance between the interests of maintaining public order and national security.

Blockchain as a systematic system is included in the information flow and electronic transactions category, the regulation of which is Law Number 1 of 2024 concerning the Second Amendment to Law Number 11 of 2008 concerning Information and Electronic Transactions. However, this law has a legal vacuum, such as that in Article 28 paragraph (1) concerning fraud and losses in electronic transactions, which still does not expressly and specifically regulate implementation guidelines in the event of conventional or online fraud cases (Sinaga & Azzura, 2024). The use of blockchain, which is generally found in the existence of crypto, can also be applied and developed in the economic system, especially in the Islamic economy of Indonesia.

Article 34 Letter A of the Bank Indonesia Regulation concerning the Implementation of Payment Transaction Processing explains that virtual currency is digital money issued by parties other than the monetary authority obtained by mining, purchasing, or transferring rewards. As part of the Islamic economic development system, blockchain technology cannot be separated from the interests and protection of consumers. On the other hand, in Bank Indonesia Regulation No.19/12/PBI/2017 concerning the Implementation of Financial Technology, there is an obligation to implement consumer protection and maintain the confidentiality of consumer data and information. This is also a mandate and order in Law Number 8 of 1999 concerning Consumer Protection (Jannah, 2022).

Although regulations such as those set out in Bank Indonesia regulations provide a legal basis for consumer protection in financial technology, the implementation of blockchain in the Islamic economy, especially in the zakat management, offers the potential to be in line with Sharia principles. However, views in Islamic law relating to the presence of blockchain technology are still being debated. This is because this technology is new and is considered yet to be established. Nevertheless, the law of blockchain technology itself is permitted as long as it does not conflict with Sharia principles or contain any detrimental elements (Nurhalizah et al., 2021). Apart from that, the application of blockchain technology in the context of zakat management also supports the principles of Islamic economic management, namely accountability and transparency, by utilizing technology. In the modern context, utilizing blockchain technology to manage zakat can be a progressive step that supports better zakat governance. Thus, integrating blockchain in zakat management offers a new way to fulfill sharia objectives (maqashid sharia) while addressing the challenges of efficiency and trust in distributing funds to mustahik.

Zakat comes from the word "zakah", which means holy, good, blessing, growing, and developing (Sinaga & Abdurrahman, 2024). It is called zakat because it contains the hope of obtaining blessings, cleansing the soul, and cultivating goodness. Zakat is a particular portion of assets that every Muslim must pay if they have reached the specified conditions. Zauro et al. (2020) define zakat as the name of certain withdrawals from certain assets, according to certain characteristics, that are to be given to specific groups. People who pay zakat are called muzakki, while people who receive zakat are called mustahik.

Zakat is one of the components of religious orders and is included in the pillars of Islam. Omar et al. (2021) argue that zakat not only contains the content of mahdhah worship in the narrow sense but is also laden with the content of socio-economic worship. At least, zakat has meaning from three different perspectives, namely from a linguistic, theological and legal perspective. From a linguistic perspective, zakat means cleansing and purifying something from dirt or impurity. From a theological perspective, zakat means spiritual purification obtained from giving zakat. Furthermore, legally, zakat means transferring ownership of specific property to certain individuals under certain conditions based on the calculation of nisab and haul, with the primary aim being to achieve socio-economic justice (Zauro et al., 2020).

Based on the surah At-Taubah verse 60, zakat must be distributed to eight (8) mustahik groups, namely the poor, the destitute, the zakat fund administrators (amil zakat), the sympathizers (mu'allaf), the people in bondage (riqab), those in debt (garimin), those in the cause of Allah (fi sabilillah) and those in the warfare (ibn sabil) (Saad & Farouk, 2019). In general, zakat is divided into 2, namely zakat maal and zakat fitr. Although the object of zakat has now developed, in general, zakat is divided into two categories: zakat māl for wealth and zakat fitr for the individual (Wahyuni-TD et al., 2021).

Zakat management in Indonesia is regulated by Law No. 23 of 2011 concerning Zakat Management (Suhartoyo & Fauzan, 2024). This Law replaces Law No. 38 of 1999, which previously became the legal basis for implementing and managing zakat. In Law No. 23 of 2011, zakat management aims to increase the effectiveness and results of zakat, infaq, and shadaqah management in Indonesia. This goal must be carried out and fulfilled with the principles of trust, benefit, justice, legal certainty, integration, and accountability to increase the effectiveness and efficiency of services (Iqbal, 2019). Management of zakat funds is essential and has an urgency that cannot be denied in the Islamic economic system, so zakat must be managed with professional and systematic management (Musa et al., 2022). This includes managing the mustahik database, which is very important so that zakat can be distributed well (Muhaimin & Munir, 2023).

Zakat management in Malaysia, for instance, is a country neighboring Indonesia that is digitalizing its Zakat management system. This management system includes the receipt and distribution of zakat funds. On the other hand, Turkiye is also one of the countries with professional zakat management, so zakat management carried out by the government is able and successful in reducing poverty (Musa et al., 2022). Zakat management in Indonesia is carried out by the National Zakat Amil Agency (BAZNAS). Articles 6 and 7, paragraph (1) of Law No. 23 of 2011, explain the role of BAZNAS as an institution authorized to manage zakat nationally. BAZNAS also has functions in planning, implementing, and controlling zakat collection, distribution, and utilization.

Zakat is divided into several forms: Zakat Mal (wealth), Zakat Fitrah, Zakat on Income, Zakat on Gold and Silver, and Zakat on Agriculture and Livestock. The Fatwa Commission

of the Indonesian Ulama Council also issued an Intensification of Zakat Implementation, held on January 26, 1982, or 1 Rabi'ul Akhir 1402 H. This intensification decided that income obtained from services could be subject to zakat if it reached the nisab and haul. If it is looked at, the zakat mentioned in the Intensification of Zakat Implementation by the Fatwa Commission of the Indonesian Ulama Council can be included in the income zakat category.

In its development, a new type of technology, namely blockchain zakat, has emerged in the distribution of zakat. According to Risius and Spohrer, blockchain technology refers to a fully distributed system for cryptographically capturing and storing a consistent, immutable, and linear transaction history between actors in the network (Alaeddin et al., 2021). In other words, Alaeddin et al. (2021) argue that blockchain technology is a list/record/history book that stores transactions that can only be accessed by parties with the authority to approve transactions. Blockchain is a decentralized electronic ledger system for creating secure and immutable cryptographic records of every value transaction, whether money, goods, property, or others (Septianda et al., 2022).

Transactions on the blockchain have significantly impacted the use of public funds where each owner stores closed keys (asymmetric cryptography) (Khairi et al., 2023). The blockchain system adopts the technology used by Bitcoin. This technology has been developed and used in the last decade (Almaghrabi & Alhogail, 2022). Blockchain zakat is a new technology developing in the management of zakat funds so that zakat management institutions and institutions are more transparent. There is no difference in terms and conditions. This type of zakat is a development in the zakat management system, where data on receipt and distribution has been stored systematically and verified by verifiers. On the other hand, a zakat auditor has been added to the blockchain zakat system to strengthen transparency in the management of zakat funds (Millatina et al., 2022).

The development of zakat can support order in the economic system and impact the legal system. Economic Analysis of Law is the application of economic principles as an option in analyzing the legal system. This theory emerged in the United States, organized in a common law system (Bintarto et al., 2022). Richard A. Posner explained that the role of law in the economy must be seen in terms of value, utility, and efficiency. The efficiency referred to by Posner is maximized resource allocation (Bintarto et al., 2022). Economic Analysis of Law is a theory of economic analysis of a law that aims to establish the nature of legal issues so that the freedom of legal analysis becomes more elucidated. Legal issues remain as objects with basic economic concepts, economic reasons, and considerations (Sugianto, 2013).

Blockchain zakat is a development in the Islamic economic system. This development is also supported by normative regulations in the legal and regulatory system, including Law No. 23 of 2011 concerning Zakat Management, which states that Zakat management aims to increase the effectiveness and efficiency of services in Zakat management. Likewise, in Government Regulation No. 14 of 2014 and strengthened by Presidential Instruction (Inpres) No. 3 of 2014, it is stated that the management of zakat funds must be integrated and accountable to increase the effectiveness and efficiency of services in zakat management.

This is also strengthened by regulating digital innovation in Financial Services Authority Regulation No. 13/POJK.02/2018 concerning Digital Financial Innovation in the Financial Services Sector. This regulation opens up opportunities for zakat institutions to take advantage of digitalization, where zakat, which is also based on digital management,

is supported by the OJK by developing responsible digital financial innovation while encouraging synergy within the digital financial services ecosystem, including the use of blockchain technology.

The zakat blockchain is managed by offering convenience in transactions, improving access to sharia economic products (including zakat), and increasing economic literacy to support the national economy (Millatina et al., 2022). So, blockchain zakat has enormous potential to support a country's economic development. This potential also needs to be supported by strengthening the legal system. Blockchain zakat can influence the formation of regulations to support the development of the zakat management system.

Implications of Blockchain in Zakat Management

Blockchain is one of the products resulting from technological developments and has enormous potential to be utilized to facilitate activities, especially those related to the financial system (Nor et al., 2021). The presence of blockchain can also bring various conveniences such as transparency, tracking transactions, access speed, recording agreements, and a guaranteed security system (Beik et al., 2019). Blockchain has a significant impact on the development of zakat institutions if it can be applied correctly and optimally. The potential benefits of increasing the efficiency and transparency of zakat operations, especially in the collection and distribution process, are the main reasons blockchain technology must be applied to zakat institutions (Muneeza et al., 2023).

One effort that can be made to apply blockchain to zakat institutions is to implement the theory of change. The theory of change is helpful as a roadmap for zakat institutions to apply blockchain so that the existing zakat potential can be exploited optimally. In the theory of change initiated by Kurt Lewin, he argued that behavior change could be carried out in three steps, namely unfreezing, moving, and refreezing (Bamberg & Schulte, 2018; Zand & Sorensen, 1975).

In the first step, unfreezing illustrates that a person's or group's goals are not achieved, which can give rise to motivation. Such consequences give rise to actions that replace old behavior (Bamberg & Schulte, 2018). In the context of zakat institutions, the enormous potential for zakat is not comparable to the realization of zakat (Batubara et al., 2023; Yusuf & Satibi, 2023). These conditions give rise to motivation for zakat institutions to increase zakat collection.

Therefore, in the second step, namely moving, individuals or society need to validate and elaborate various kinds of strengths that aim to achieve the expected goals. An intervention process can also be carried out to help shift habits during the transition stage. At this time, individuals or communities experience a change in awareness, which becomes increasingly open to various new concepts, new perspectives, and new information, which then re-evaluates old or previous situations (Bamberg & Schulte, 2018).

In the context of zakat institutions, all must understand that change towards a better direction requires actual movements. All stakeholders who have relations with zakat institutions need to formulate a strategy that, at this stage, must be directed at strengthening and encouraging the birth of various initiatives. When zakat institutions are active in making various changes towards a better direction, especially in the use of blockchain for zakat institutions, the desired changes will quickly be realized (Muldoon, 2020).

Furthermore, the final step, namely refreezing, where this step is re-freezing, which directs individuals or society to stabilize and strengthen their new behavior or habits (Bamberg & Schulte, 2018). In this step, in the context of the zakat institution, the balance of the zakat institution, which aims to achieve change, has been achieved.

Therefore, the changes that have been made must be structured within the good governance of zakat institutions. To avoid setbacks that return to the past, zakat institutions need to carry out regular evaluations and read future changing trends to be more advanced. This can only be achieved by formulating policies and good organizational governance (Sawmar & Mohammed, 2021; Wiwoho et al., 2023).

If applied to zakat institutions, blockchain has various positive impacts, especially in managing zakat funds. Several advantages that we can find when using blockchain as a system to maximize the potential of zakat include transparency and accountability (Nguyen et al., 2021), systematic fund tracking (Beik et al., 2019), smart contracts with automation methods (Rejeb 2020; Zulfikri et al., 2021), administrative cost efficiency (Hamdani, 2020), encrypted security features (Almaghrabi & Alhogail, 2022), cross-border network access (Millatina et al., 2022; Wiwoho et al., 2023), and others.

Transparency and accountability are essential for a social institution in managing public funds (Nguyen et al., 2021). A decentralized and uneditable information network ensures that managed zakat funds are transparent and accountable. All transaction activities and agreements are neatly recorded in the blockchain system, so it takes work to replace transaction data that has been neatly input. Transparency and accountability help Muzakki to give trust to Zakat institutions. When zakat institutions can use blockchain, muzakki can trace the flow of zakat funds that have been given. Apart from that, the distribution of the zakat funds collected can be traced to the mustahik because they have a database system that is well-stored and highly secure. Muzakki can also ensure whether or not the zakat funds given to zakat institutions are used according to their purpose (Beik et al., 2019).

In blockchain technology, there is also an essential component in managing collected zakat funds, namely smart contracts. Blockchain provides the opportunity to execute smart contracts that can be executed automatically to distribute zakat funds when predetermined conditions have been met. In such situations, it will undoubtedly reduce the administrative costs required because it is carried out automatically and shows that the managed zakat funds can circulate efficiently and fairly (Rejeb, 2020; Zulfikri et al., 2021). Through automation, the process implemented can reduce administrative costs between both parties. Blockchain reduces the administrative burden without using third parties so that transactions can reduce operational costs (Hamdani, 2020). This, of course, impacts the availability of a higher percentage of zakat funds and allows for more expansive opportunities for the use of zakat funds.

Almaghrabi & Alhogail (2022) explain that technological developments also encourage social organizations to maximize the potential of blockchain to serve donors well, including muzakki in their relations with zakat institutions. The majority of muzakki fear that the zakat funds that have been donated are used illegally or even fraudulently. Therefore, the need for security features that use encryption, such as blockchain, helps zakat institutions overcome these prejudices, including preventing misuse of funds.

Blockchain technology can also help in efforts to expand zakat services to all less-reached areas. The blockchain can access all regions nationally and even globally to facilitate muzakki in channelling their funds to mustahik. Providing a platform that can be

applied quickly and safely will help zakat funds to be distributed properly. Such efforts will also help zakat funds contribute more to sustainable development goals to alleviate poverty and hunger in places that are difficult to reach (Millatina et al., 2022).

In addition, blockchain can help cross-border transactions (Wiwoho et al., 2023). It means that this can also help zakat institutions anywhere and from anywhere to carry out cross-border transactions. Blockchain provides a means for collecting and distributing zakat funds globally and allows muzakki to contribute wherever they live. This is undoubtedly useful and reaches mustahik in various countries. If it can be run optimally, blockchain certainly has a vital role in effectively overcoming various global problems and crises.

In the end, optimizing the management of zakat funds through blockchain technology will build the trust of muzakki to entrust their funds so that they are distributed appropriately to mustahik. With the various advantages that blockchain has, including transparency, security, traceability, and so on, it impacts trust, thereby optimizing the potential of zakat funds and producing a much more significant contribution to the distribution and utilization of zakat funds.

Figure 1 illustrates how blockchain can be implemented to optimize zakat institutions. In the first step, the collection is made directly to digital wallets managed by zakat institutions. This method simplifies the payment process, making it convenient for muzakki to contribute. Using digital wallets also minimizes manual errors and potential mismanagement while collecting funds, encouraging more contributions from muzakki. After zakat is paid by muzakki, every transaction is recorded immutably on the blockchain ledger. Smart contracts validate whether the zakat payments adhere to guidelines or not. Additionally, the blockchain eliminates the risk of fraud, as each payment is fully traceable and securely handled.

The collected zakat is automatically categorized using smart contracts in this validation phase. These contracts earmark funds for eligible recipients. This process streamlines the allocation of funds through predefined rules embedded in the blockchain. Then, in the distribution step, funds are directly transferred to mustahik's digital wallets, bypassing intermediaries. Blockchain technology and decentralized identity systems ensure that mustahik are both eligible and authentic. This reduces administrative and operational costs, mitigates fraud risks, and empowers mustahik by providing quick and transparent access to their allocated funds and cross-border transactions.

Blockchain's inherent transparency allows muzakki and stakeholders to monitor the flow of Zakat funds. Reports detailing fund usage and remaining balances are publicly available, enhancing accountability. This transparency builds trust among muzakki by clearly showing how their zakat funds are utilized. Additionally, it enables zakat institutions to comply with regulations and attract more contributions by highlighting the visible impact of their efforts. Finally, the monitoring phase allows muzakki and stakeholders to assess the effectiveness of distributions through blockchain-enabled mechanisms. Zakat institutions can analyze this data to optimize future management strategies, improving the efficiency of the Zakat system over time. This ensures that distributions align with evolving community needs and enhances muzakki confidence by demonstrating a commitment to continuous improvement.

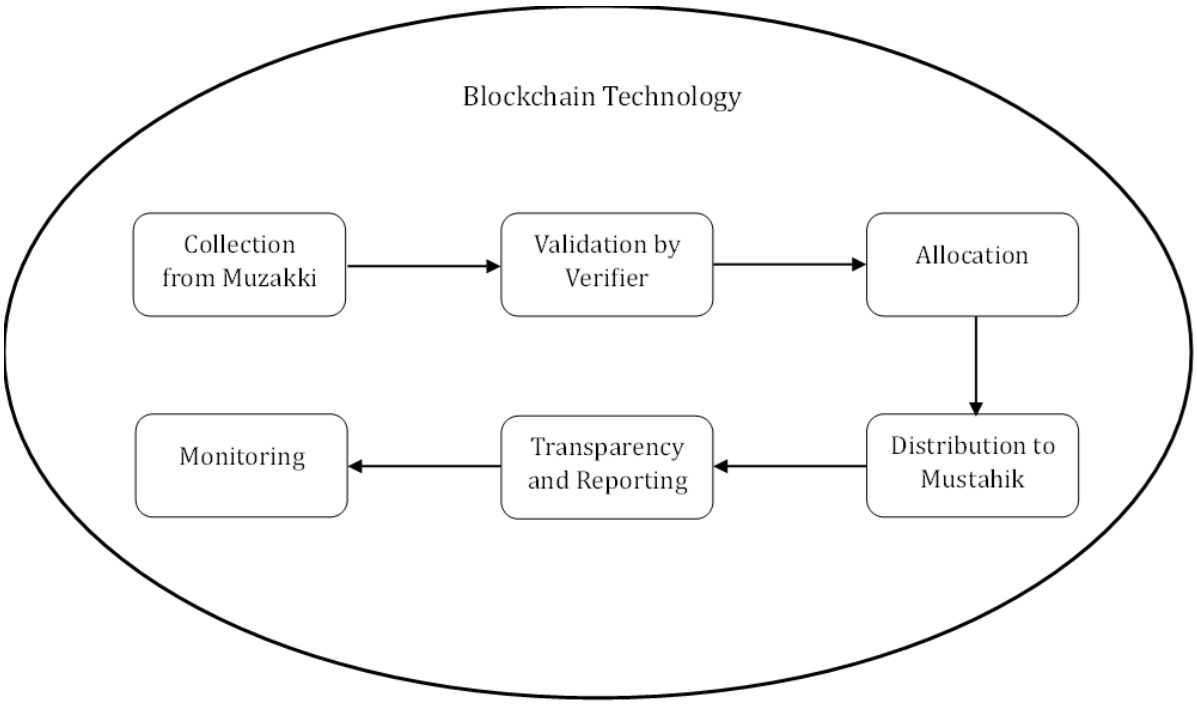

Figure 2. The Management of Zakat using Blockchain
Source: Authors' creation, adopted from various sources

However, it is important to note that although blockchain offers these potential benefits, its successful implementation in zakat management may still face many challenges, including the readiness of zakat institutions to adopt the technology, regulatory considerations and legal umbrellas presented by the government, and the need for a robust, well-structured ecosystem. However, as blockchain technology develops and matures, it has the potential to change zakat management and increase its impact in helping those in need.

D. Conclusion

In conclusion, blockchain has various positive impacts if applied to zakat institutions, especially in managing zakat funds. Some of the positive impacts of using blockchain technology include transparency and accountability, systematic fund tracking, smart contracts with automation methods, efficient administration costs, encrypted security features, cross-border network access, and so on. These various advantages will undoubtedly impact increasing public trust in zakat institutions, thereby optimizing the potential of zakat funds and producing a much more significant contribution to the distribution and utilization of zakat funds to mustahik and the wider community. This provides essential suggestions on how blockchain technology can increase the efficiency and effectiveness of zakat fund management. This also influences muzakki and mustahik that zakat funds are managed professionally, transparently, and accountably, thereby increasing muzakki's trust in zakat institutions.

The recommendations from this research encourage the government and all its supporting partners to encourage socialization campaigns and the application of blockchain technology for the development of zakat institutions while protecting all relevant stakeholders by providing a legal umbrella that explicitly regulates the

application of blockchain technology, especially in zakat institutions. Apart from that, this research also recommends that every zakat institution start studying, socializing, and providing training on the application of blockchain to zakat institutions, to every element of the zakat institution, specifically to amil. Such efforts will help create a new paradigm for zakat institutions as part of efforts to maximize zakat potential and optimize zakat fund management. However, this research still has limitations. The limitation of this research is that it is still researched and studied based on a conceptual approach perspective using various existing literature. Therefore, future researchers can conduct empirical scientific research to provide evidence that applying blockchain technology to zakat institutions can maximize the potential of zakat and optimize the management of zakat funds.

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