

## The Legality Of Zakat Blockchain In Indonesia: In the Perspective of Islamic Law and Indonesian Positive Law

<sup>1</sup>Ayu Rahayu Nurhalizah, <sup>2</sup>Sirajul Arifin, <sup>3</sup>Aldi Khusmufa Nur Iman

<sup>1,2,3</sup>State Islamic University Sunan Ampel Surabaya

Email: ayurahayunurhalizah6@gmail.com<sup>1</sup>, sirajul.arifin@uinsby.ac.id<sup>2</sup>,  
aldikhusmufa@gmail.com<sup>3</sup>

Received: 20 July 2021; Revised: 30 November 2021; Published: 31 Desember 2021

### ABSTRAK

Besarnya dana zakat yang harus didistribusikan kepada mustahiq serta tuntutan untuk terjaminnya sistem keamanan pada pengelolaan zakat sehingga tercapainya tujuan pengelolaan zakat yaitu untuk meningkatkan efektivitas dan efisiensi pelayanan. Untuk itu, hadirilah teknologi *blockchain* yang merupakan sebuah sistem penyimpanan data digital yang terdiri dari *multiserver*. Artikel ini menguraikan mengenai legalitas dan keabsahan zakat blockchain di Indonesia. Penelitian ini menggunakan jenis penelitian kepustakaan (*literature review*) dengan pendekatan kualitatif. Teknik analisis data yang digunakan pada artikel ini yaitu berupa reduksi data, penyajian data, uji keabsahan data (*triangulasi data*), verifikasi dan penarikan kesimpulan. Hasil penelitian ini menyatakan kebolehan penggunaan teknologi blockchain untuk pengelolaan zakat selama tidak bertentangan dengan prinsip-prinsip syariah dan tidak menimbulkan mafsadah juga mudharat. Namun belum adanya regulasi yang mengatur secara khusus mengenai zakat teknologi (*blockchain*) di Indonesia, juga adanya kendala dalam penerapannya dikarenakan wilayah Indonesia memiliki kondisi yang berbeda satu sama lain.

**Kata kunci:** *Blockchain; Hukum Islam; Legalitas; Zakat.*

### Abstract

The amount of zakat funds that must be distributed to mustahiq as well as demands for a guaranteed security system in zakat management become the main focus to attain the goal of zakat management; that is to improve the effectiveness and efficiency of services. Therefore, to attend this goal, blockchain technology is created, which is a digital data storage system consisting of multiservers. This current study explains the legality and validity of zakat blockchain in Indonesia. In collecting data, qualitative approach was employed established in the form of literature review. The techniques of data analysis used were data reduction, data presentation, data triangulation, verification and conclusion of the obtained data. The results indicate that blockchain technology for zakat management is permissible to be used as long as it is not against the Shari'a principles and does not cause mafsadah (harm) or negative consequences. However, regulation that specifies the technology of zakat blockchain in Indonesia is not issued yet, and also some obstacles in its application are still found due to the regions of Indonesian have conditions that are different from one another.

**Keywords:** *Blockchain; Islamic Law; Legality; Zakat.*

## INTRODUCTION

As time goes by, which further enhances the evolution of sharia finance, including sharia fintech, zakah also takes on its role on the practical side by being present through some zakah management institutions throughout the country. Zakah can be utilized for productive efforts in the context of handling the poor and improving the quality of the people (Lembaran Negara Republik Indonesia Tahun 2011 Nomor 115, 2011). To increase usability and usability, zakah must be managed institutionally under Islamic law, trustworthiness, expediency, justice, legal certainty, integration, and accountability to increase the effectiveness and efficiency of services in zakah management.

To increase effectiveness and efficiency in the performance of zakah fund management in Indonesia, the emergence of the world's first fund management system supported by Blockchain was built with the principles of transparency, efficiency, and sustainability to prevent misuse, misplacement, loss, theft, and other factors that contribute to the potential collection of zakah and reduce operational costs. The system makes it possible to cut transaction costs associated with receiving payments from muzakki and distributing them to mustahiq and helps maximize the funds raised especially on a global scale. Indonesians living abroad and Muslims around the world can pay zakah more easily. Muzakki feels confident that their money is being used well and mustahiq gets the funds dispersed efficiently and quickly.

Blockchain is a digital data storage system consisting of many servers (multiserver). In Blockchain technology, data created by one server can be replicated and verified by another server. More specifically it is about a chain of transaction data between users stored in blocks where each block records a certain amount of data which is encrypted by cryptographic hashing.

Furthermore, regarding the application of Blockchain for zakah, there are several reasons with the potential for receiving large zakah funds. President Director of the National Amil Zakah Agency (BAZNAS), Arifin Purwakananta said the potential for zakah in Indonesia reached Rp330 trillion. (Vanny El Rahman, 2020). And these funds must be distributed to those who are entitled to receive them, on the other hand, their security must also be guaranteed.

According to Santoso in his research (Santoso, 2019), zakah institutions that have been mandated by the government require adaptation to these developments from efforts to adjust the application of zakah digitization. Planning of zakah institutions supported by the integration of management

information systems between central and local BAZNAS can increase accountability and transparency of zakah management, which in turn can increase public trust in zakah institutions and encourage citizens to pay zakah through official bodies.

As for the opinion of Siti Nabihah, et al (Esrafi, Mohd Nor, & Abdul Majid, 2018) explained that zakah management is in line with technological developments and zakah institutions currently believe that the use of technology by zakah management can further strengthen the management system while offering better services. This research also shows that muzakki and mustahiq believe in technology and the use of technology is seen as beneficial for its users. In addition, the experience of using technology affects user intentions. However, users think blockchain is not easy to use. This may be because respondents do not have comprehensive knowledge of blockchain technology compared to other financial technologies.

Based on the explanation of the background above as well as previous research that explains technological developments in paying zakah and the pros and cons of implementing Blockchain as a means of payment, the author is interested in researching the legality of blockchain technology applied in Indonesia, especially in terms of legality both from the law positive and Islamic law. Therefore, the author will research with the title " The Legality of Blockchain Zakah in Indonesia".

## **RESEARCH METHODS**

This research uses a type of library research (literature review) with a qualitative approach. The data collection technique used is to collect library documentation from articles, journals, and books with primary data, namely legislation related to the discussion in this research.

The data analysis technique used in this article is in the form of data reduction, data presentation, data validity test (data triangulation), verification, and conclusion drawing. Of the three processes of data analysis, which will be able to eliminate data that is not related to the formulation of the problem, so that it can answer the problems in this research.

## RESEARCH RESULTS AND DISCUSSION

## Zakah

Quoting Sulaiman Rasjid's opinion (Ridlo, 2013) that zakah in terminology is a certain level of property given to those who are entitled to receive it, with several conditions. Every Muslim is required to issue zakah if it has fulfilled the mandatory zakah requirements which are then handed over to mustahiq (people who are entitled to receive zakah). Zakah is also a form of humanitarian social activity that can develop by the development of mankind (Tim Emir, 2016).

Zakah comes from three different meanings based on the sharia perspective: purifying (at-thaharatu), developing (an-namaa), and blessing (al-barakatu). This greatly contributes to strengthening social welfare, eradicating poverty, and empowering communities (Friantoro, D., & Zaki, 2018). This is specifically for muzakki or people who give zakah and mustahiq, namely people who are entitled to receive zakah as mentioned in the Qur'an at-taubah verse 60:

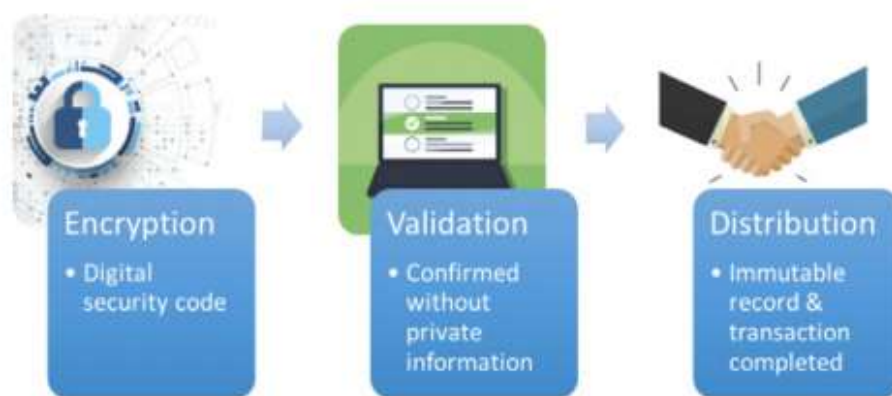
إِنَّمَا الصَّدَقَتُ لِلْفُقَرَاءِ وَالْمَسْكِينِ وَالْعَامِلِينَ عَلَيْهَا وَالْمُؤَلَّفَةِ قُلُوبُهُمْ وَفِي الرِّقَابِ  
وَالْغَارِمِينَ وَفِي سَبِيلِ اللَّهِ وَابْنِ السَّبِيلِ ۗ فَرِيضَةً مِّنَ اللَّهِ ۗ وَاللَّهُ عَلِيمٌ حَكِيمٌ - ٦٠

Meaning: *Indeed, zakah is only for the needy, the poor, the amil zakah, who are softened in their hearts (converts), for (liberating) slaves, for (freeing) people who are in debt, for the way of Allah and for people who are on their way. , as an obligation from Allah. Allah is All-Knowing, All-Wise.*

The important role played by zakah includes religious, economic, political, and social aspects (Omar, 2016). The assets that are to be zakah must be fully owned by independent Muslims without the intervention of others, where people who have excess assets from their income are used for the benefit of developing an Islamic society and alleviating the problem of poverty (Ardiansyah & Lubis, 2018). The distribution of zakah is a complex problem because philanthropic institutions and zakah administrators need to increase their activities effectively in promoting the Islamic spirit in preaching, one of which is to participate in tithing through these institutions. This implies that Islamic finance is closely related to poverty alleviation programs as a basic social responsibility to achieve prosperity (Rahmat, R. S., and Nurzaman, 2019)

## Blockchain

Blockchain is a digital data storage system consisting of many servers (multiserver). In Blockchain technology, data created by one server can be replicated and verified by another server. More specifically it is about a chain of transaction data between users stored in blocks where each block records a certain amount of data which is encrypted by cryptographic hashing. If the user wants to make a transaction, then he must communicate it to all other network users so that they can verify the authenticity of the data. Each user will have a copy of the data ledger so that all transactions are viewable and available to all so that there is no possibility of fraudulent transactions, fraudulent actions, or hacking actions. In addition to transparency, reliability and the possibility of precise and detailed tracking of funds, the decentralized structure of the Blockchain network reduces transaction costs by eliminating any intermediaries. The process of promoting transactions in the Blockchain begins first by creating a digital security code by encrypting it. The second step is where the user tries to authenticate the transaction while keeping the information private. Finally, the transaction is recorded in an immutable manner and will be automatically distributed to all users (Changa, V., 2020). The process described above is shown in the following picture:



Pic. 1. How *Blockchain* promotes transactions.

Blockchain has one of the most valuable and popular assets which is a cryptocurrency product in the form of Bitcoin. Bitcoin transaction recording blocks were originally going to compete with each other the fastest to record all transactions that have been made by users. From the results of this record, one of the Bitcoin mining mechanisms will occur automatically. The registrar

that records transactions the fastest means that they have successfully mined Bitcoin. That is why there will be multiple records for just one transaction. This is due to the reward from the recording which automatically becomes Bitcoin mining activity for the registrar. Blockchain as a system of recording and ledger of digital transactions has several absolute properties. The absolute properties of Blockchain, among others (Ridlo, 2013):

**Decentralized**, even though Blockchain is a single ledger of records, but has recorded data spread over thousands to hundreds of thousands of blocks on the internet network. **Have a clear demand mechanism and inflation rate.** The market price mechanism for every commodity in the world depends on supply and demand, or the law of supply and demand. **Transparent and Open Source.** Transparency in the Blockchain system, allows users to know all the risks of their investments. **Immutable** which means that every transaction that has occurred cannot be undone. The peer-to-peer transaction system allows each wallet owner to make transactions directly between users. **Safety** because Blockchain is not managed singly, it will create a community of users who also feel they own the system. Piracy or cracking of the Blockchain means that you also have to face and get past the users' blocks.

### **The legality of Zakah Blockchain Islamic Law Perspective**

Technological developments that have entered the Era of Technology 4.0 transformation, it is hoped that zakah institutions will be able to implement efficiency and effectiveness in the operational implementation of zakah management (Natalia Monjelat, n.d.). The National Amil Zakah Agency continues to innovate to support performance in collecting zakah management funds. The existence of technological developments such as the digit system and blockchain has been used, especially zakah collection, zakah management, distribution, and as a means of educating zakah to National Amil Zakah Agency. (Outlook Zakat Indonesia 2019, 2019). In zakah management activities, of course, a study of Islamic law is needed to confirm whether or not the use of technology, especially Blockchain zakah is permissible.

Based on the theories contained in the rules of the Islamic law that are following the concept of Islamic economics, nine rules are obtained (Pertiwi Utami, 2019). The following are the nine rules of Islamic law along with an analysis of the zakah blockchain:

The first is the Theory of Intention (Nadharariyad An-Niyat). In the rules of fiqh, it is stated, "al-ibratu fi al'uqudi li al-maqashidi wa al-ma'ani lal i al-

fadzi wal mabani". If the muzakki intends to start transactions using blockchain for the zakah payment system, then he can be said to have intended to carry out zakah. This is what is meant by acting (transaction) with intent and intention, not just lafadz and statements. The benefits of this blockchain zakah can be felt directly for muzakki, especially those who are busy and live far away so that it is difficult to pay zakah and the implementation of zakah using blockchain technology can reach all over the country though. therefore this program is very useful for them. Charity or action is not against the law or principles that have been established based on Nash or Ijma '. This blockchain zakah payment does not conflict with the principles contained in Nash. As in the Qur'an which reads:

...يُرِيدُ اللَّهُ بِكُمُ الْيُسْرَ وَلَا يُرِيدُ بِكُمُ الْعُسْرَ...

Meaning: Allah wants ease for you, and (Allah) does not want difficulty for you (QS. Al-Baqarah (2): 185, 29).

Second, the theory of Expression of Desire (Nadhariyah Al-Ta'bir Al-'Iradat). Desire is something that cannot be known, but its signs can be seen such as in words, gestures, or speech. The desire of the heart is clear when muzakki uses blockchain technology for zakah, this means that the implementation of zakah is valid because there is a sign that shows the desire of the heart (iradah).

Third, the Theory of Maintenance of Benefit (Nadhariya Al-Maslahah). Maslahah in general is a relative because many maslahahs sometimes contain elements of mafsadat and vice versa. The absolute nature of blockchain technology is to have a clear and transparent mechanism so that transactions are very safe and avoid fraud so that there is very little harm and can even create benefits that can be accepted by Islamic law.

Fourth, the Theory of Origin Law (Nadhariyat Al-Akhdzi bi Al-Istishab). The original law (istishab) is the same as continuing the validity of the syara' law which has remained in the past regarding a problem until there is another argument that states the loss of the provision. Blockchain is only a means of paying zakah, no contract legally binds muzakki and mustahiq. However, if there is a loss and suspected misuse, then there is no obligation to compensate unless an intentional element is found that causes legal material loss. Although every muzakki has access to the distribution of zakah data that is in anonymous blocks, the absence of a third party that can guarantee the

security of muzakki's data allows the leakage of private data that was previously stored in each transaction.

Fifth, the theory of the limitations of Ijtihad (Nadhariyat Dhawabith Al-Ijtihad). Ijtihad is defined as exerting all energy and thought to obtain syara' law conclusions on certain problems by studying and researching the texts of the Qur'an and Sunnah according to the rules of the Arabic language or using (analogy) after knowing the reasons (illat) for legal reasons. Abdul Wahab Khallaf explained the possibility of Ijma 'because of technological advances.

Sixth, the Theory of Guardianship (Nadhariyat Al-Walyah). Guardianship is the authority given by Islamic law to a person to take binding actions as an act of guardianship that has legal restrictions and provisions. Blockchain technology is used to increase the transparency of zakah management institutions. It is hoped that it will increase muzakki's trust in distributing their zakah to National Amil Zakah Agency.

Seventh, the Theory of Jaliyah Conditions in the Contract. The conditions for jaliyah are the terms of the contract transaction that are intentionally mentioned by both parties in addition to the provisions stipulated by the Shari'a. Blockchain technology in transactions without involving third parties to reduce transaction costs. However, the Jaliyah requirement was not fulfilled on the technology, due to the absence of agreement on the provisions determined by both parties.

Eighth, Tawabi Theory. In the rules of fiqh: "at-tabi'u tabi'," (something that binds sticks to something) is legally binding on something). The convenience, transparency, and security of transactions offered by blockchain technology for zakah payments, so that muzakki can make transactions easily and comfortably.

Ninth, Theory of Guarantee (Nadhariyat Al-Dhaman). Starting from the problem of kharaj which means something that is produced or the output of something that is considered, guarded, or used for protecting other people's property or property. Blockchain zakah is not a commercial payment transaction so there is no guarantee of return in the event of an error or omission in the transaction. However, the decentralized nature of blockchain can reduce errors during the transaction process.

It can be concluded that the law of blockchain technology itself is allowed, as long as it does not conflict with sharia principles and does not contain elements of harm (Pertwi Utami, 2019). Next is to apply the principles in the management of Islamic Economics is accountability and transparency by



using technology. Sharia Accounting Standards and standardization regulations to guarantee zakah management must also be used.

### **Blockchain Zakah Regulations And Challenges In Indonesia**

Technological developments in the financial industry have a very significant effect on the Islamic social finance sector, including zakah institutions. Technology in the distribution of zakah is considered to be very crucial so that the benefits and impacts of zakah can be felt. The discussion regarding the use of technology in the management of zakah institutions to handle the role of zakah in encouraging development, then the adoption of the latest technology in zakah management, and the use of blockchain technology for zakah administration. The National Zakah Agency of the Republic of Indonesia has also implemented blockchain technology in the first stage (Humas National Amil Zakat Agency, 2020).

Blockchain designed with the principles of transparency, efficiency, and sustainability in mind can prevent misuse, misplacement, loss, theft, and other factors that contribute to the potential for zakah collection and reduce operational costs. This is following the main objectives of zakah management as stated in Article 3(a) of Law no. 23 of 2011 concerning Zakah Management which states that zakah management aims to improve the effectiveness and efficiency of services. Of course also by applying the principles of Islamic law, trustworthiness, expediency, justice, legal certainty, integration, and accountability in the management of zakah. (Lembaran Negara Republik Indonesia Tahun 2011 Nomor 115, 2011).

But on the other hand, the lack of technological innovation and the use of blockchain, internet-based media in program socialization, and accountability in some areas is still low. This is related to the operational expenses that must be incurred by BAZNAS and the internet network in Indonesia which is still very low compared to other countries. A weak internet network can interfere with the implementation of the zakah blockchain. Likewise, the implementation of blockchain technology in the future requires a conducive environment, especially in terms of regulation. Regulations or regulations that have been set by the government only regulate the management of zakah in general and the BAZNAS organization.

On the other hand, if the application of this blockchain in the management and distribution of zakah cannot be separated from Cryptocurrencies, this certainly raises pros and cons, especially among scholars and financial industry observers. Recently, the MUI issued a fatwa regarding the prohibition of using cryptocurrency as a medium of exchange.

Turning to the issue of cryptocurrency as an investment asset, KH Cholil (Chairman of the Central Indonesian Ulema Council (MUI) Da'wah Commission) emphasized that this tends to include gharar, namely speculation that can harm others. Its existence has no supporting assets, prices cannot be controlled, and there is no official guarantee of its existence, so a lot of speculation is likely haram.

Thus, based on the various considerations mentioned above, he said that the law of cryptocurrency as a medium of exchange is permissible (permissible) for those who are willing to use and acknowledge it. However, the law of cryptocurrency as an investment is illegal because cryptocurrency is treated as a tool of speculation, not for investment, or in other words, only a tool for profit-and-loss games, not a profitable business.

If the state recognizes the existence of Bitcoin for the benefit of the nation, the use of cryptocurrency becomes legal. However, until now, Bank Indonesia does not recognize virtual money. Bank Indonesia only recognizes the rupiah as the official currency following PBI No. 18/40/PBI/2016. Based on these considerations, the Grand Mufti of Egypt declared that cryptocurrencies are prohibited. After all, cryptocurrencies can be dangerous for the socio-economic security of the country because cryptocurrencies can become gateways for money laundering and smuggling. Similarly, Sheikh Assim al-Hakeem, a prominent cleric of the kingdom of Saudi Arabia decided to ban the use of cryptocurrencies due to the unclear name of the owner so that it can become an open gate for money laundering and drug trafficking (Ausop and Aulia, n.d.).

Different from other Muslim majority countries. The United Arab Emirates has allowed cryptocurrency trading in Dubai, while Bahrain has supported crypto assets since 2019 (Arys Aditya, 2021). Likewise, the Wahid Foundation and the Islamic Law Firm (ILF) held a bathsul masail (research) of scholars regarding the halal and haram cryptocurrencies. The scholars who attended agreed that crypto assets are assets because assets are legal to be exchanged or transacted as long as there is no gharar or uncertainty. In addition, scholars recommend that in the Indonesian context crypto-assets fall into the category of sil'ah or commodities. Not the amount of currency or currency or medium of exchange. The scholars ask that people who do not have adequate knowledge about crypto, stay away from it. Because crypto assets are very volatile and dynamic. So if you want to transact crypto, you must understand well this crypto asset and the risks caused by fluctuations in

its trade and must be sure that there is no 'gharar' in it, there is no element of manipulation or uncertainty in it (Yenny Wahid, 2021).

Keep in mind that blockchain technology is different from digital currencies like Bitcoin. Blockchain is a technology used in transactions of Bitcoin and other digital currencies that use a distributed payment protocol. This technology can be used for other applications as well (Satoshi Nakamoto, 2008). Included in the application of blockchain-based zakah.

In its application, this blockchain technology was adopted by BAZNAS (National Amil Zakah Agency) in the administration, distribution, and management of zakah management in Indonesia. The adoption of this technology has been planned since 2020 at the 4th International Zakah Conference ICONZ 2020. BAZNAS RI has implemented blockchain technology in other initial stages as well. Included in the application of blockchain-based zakah ('Konferensi Zakat Internasional ke-4 ICONZ 2020 Hasilkan Sembilan Resolusi', 2020). Blockchain in its application, built with the principles of transparency, efficiency, and sustainability, can prevent misuse, misplacement, loss, theft, and other factors that contribute to the potential for zakah collection and reduce operating costs.

Apart from zakah, the philanthropic sector will benefit from blockchain technology. Many advantages can be shared and created, and it is even possible to argue that blockchain technology can increase the efficiency of the philanthropic sector. As several charitable crowdfunding currently have opened up options for cryptocurrencies, among them are new crowdfunding platforms such as bitgive, bithope, and helperbit, which allow donors to make bitcoin donations to selected charities for their fundraising campaigns (Paul Lamb, 2018)

This technology also has the potential to enable waqf recording. There are many main reasons why blockchain would be very useful for tracking waqf activity. First, waqf is a fixed philanthropic asset, while blockchain allows for a more flexible and permanent record of waqf. Second, because the use of property or waqf funds can be cumbersome when recording waqf, decentralized recording will provide more protection due to possible resistance to changes in data (Umam, Putra, & Hany, 2020).

One company that uses blockchain technology in waqf is Finterra. Finterra Endowment (Waqf) Chain is the world's first philanthropic Blockchain. Because it is based on the Waqf instrument, the instrument must comply with Sharia compliance. They use a crowdfunding platform that uses Blockchain technology to build smart contracts. These smart contracts will be

linked to certain Waqf initiatives. Waqf Blockchain operations are defined as structured transactions in which (i) the tokens are backed by real assets, (ii) the tokens receive dividends, and (iii) the tokens are transferable (Finterra, 2018).

## CONCLUSION

Blockchain which is a digital data storage system consisting of many servers (multiserver) with absolute properties, namely decentralization, has a clear, transparent, and open-source mechanism of demand and inflation, immutable, and safe so that it can be adopted as a zakah management system in Indonesia. . In its application, blockchain technology is allowed as long as it does not conflict with sharia principles and does not contain elements of harm. The application of the zakah blockchain technology has been used by BAZNAS since 2020, but with the status still on trial. This blockchain technology is not only used in the distribution or management of zakah, this technology has long been applied to blockchain Sukuk or blockchain waqf. On the other hand, no legislation in Indonesia explicitly regulates technology zakah which is expected to create a conducive environment for the implementation of blockchain zakah in the future.

## BIBLIOGRAPHY

- Ardiansyah, I. H., & Lubis, D. (2018). Pengaruh Variabel Makroekonomi terhadap Pertumbuhan Sukuk Korporasi di Indonesia. *Al-Muzara'ah*, 5(1), 51-68. Retrieved from <https://doi.org/10.29244/jam.5.1.51-68>
- Arys Aditya. (2021). Crypto Is Forbidden for Muslims, Indonesia's National Religious Council Rules. *Bloomberg.Com*.
- Ausop and Aulia. (n.d.). Teknologi Cryptocurrency Bitcoin Untuk Investasi Dan Transaksi Bisnis Menurut Syariat Islam.
- Changa, V., Baudierb, P., Zhangc, H., Xua, Q., Zhanga, J., & Aramid, M. (2020). How Blockchain can impact financial services -The overview, challenges, and recommendations from expert interviewees. *Technological Forecasting & Social Change*, 2. Retrieved from <https://doi.org/https://doi.org/10.1016/j.techfore.2020.120166>

Esрати, S. N., Mohd Nor, S., & Abdul Majid, M. (2018). Fintech (blockchain) dan pengurusan zakat di malaysia/ financial technology and zakah management in malaysia. *Prosiding Persidangan Kebangsaan Ekonomi Malaysia Ke 13*. Retrieved from [https://www.researchgate.net/publication/329389820\\_FINTECH\\_BLOCKCHAIN\\_DAN\\_PENGURUSAN\\_ZAKAT\\_DI\\_MALAYSIA\\_FINANCIAL\\_TECHNOLOGY\\_AND\\_ZAKAH\\_MANAGEMENT\\_IN\\_MALAYSIA](https://www.researchgate.net/publication/329389820_FINTECH_BLOCKCHAIN_DAN_PENGURUSAN_ZAKAT_DI_MALAYSIA_FINANCIAL_TECHNOLOGY_AND_ZAKAH_MANAGEMENT_IN_MALAYSIA)

Finterra. (2018). FINTERRA | Blockchain Based Financial Services for all.

Friantoro, D., & Zaki, K. (2018). No Title. In *Do We Need Financial Technology for Collecting Zakat?* (pp. 227-238). Yogyakarta, Indonesia: INTERNATIONAL CONFERENCE OF ZAKAT. Retrieved from <https://doi.org/https://doi.org/https://doi.org/10.37706/iconz.2018.133>

Humas BAZNAS. (2020). Konferensi Zakat Internasional ke-4 ICONZ 2020 Hasilkan Sembilan Resolusi. Jakarta. Retrieved from [https://baznas.go.id/Press\\_Release/baca/Konferensi\\_Zakat\\_Internasional\\_ke-4\\_ICONZ\\_2020\\_Hasilkan\\_Sembilan\\_Resolusi/642](https://baznas.go.id/Press_Release/baca/Konferensi_Zakat_Internasional_ke-4_ICONZ_2020_Hasilkan_Sembilan_Resolusi/642)

Konferensi Zakat Internasional ke-4 ICONZ 2020 Hasilkan Sembilan Resolusi. (2020). Retrieved from [https://baznas.go.id/Press\\_Release/baca/Konferensi\\_Zakat\\_Internasional\\_ke-4\\_ICONZ\\_2020\\_Hasilkan\\_Sembilan\\_Resolusi/642](https://baznas.go.id/Press_Release/baca/Konferensi_Zakat_Internasional_ke-4_ICONZ_2020_Hasilkan_Sembilan_Resolusi/642)

Lembaran Negara Republik Indonesia Tahun 2011 Nomor 115. (2011). *Undang-Undang No. 23 Tahun 2011 Tentang Pengelolaan Zakat*. Retrieved from Jakarta:

Natalia Monjelat, S. J. (n.d.). Analisis Efisiensi & Efektivitas Zakat Payroll System Dan Zakat Digital Terhadap Penerimaan Zakat Pada BAZNAS Periode 2016-2017. *'Director*, 2018, 1-104. Retrieved from <https://doi.org/https://doi.org/10.22201/fq.18708404e.2004.3.66178>

Outlook Zakat Indonesia 2019. (2019). *Pusat Kajian Strategis (PUSKAS) BAZNAS*. Outlook Zakat Indonesia 2019.

Paul Lamb. (2018). Crypto-Philanthropy: How Bitcoin and Blockchain Are Disrupting the World of Giving. Retrieved 9 December 2021, from <https://medium.com/@pauljlamb/crypto-philanthropy-how-bitcoin-and-blockchain-are-disrupting-the-philanthropic-sector-80716dc7cb68>

- Pertiwi Utami, et al. (2019). Management of Zakat Payment Based on Fintech for the Good Corporate Governance Improvement. *Eastern Journal of Economics and Finance*, 4(2), 41–50.
- Rahmat, R. S., and Nurzaman, M. S. (2019). Assessment of zakat distribution A case study on zakat community development. *International Journal of Islamic and Middle Eastern Finance and Management*, 12(5). Retrieved from <https://doi.org/https://doi.org/10.1108/IMEFM-12-2018-0412>
- Ridlo, A. (2013). Kebijakan Ekonomi Umar Ibn Khattab. *Jurnal Al-'Adl*, 2.
- Santoso, I. R. (2019). Strategy for Optimizing Zakat Digitalization in Alleviation Poverty in the Era of Industrial Revolution 4.0. *Ikonomika*, 4(1), 35–52. Retrieved from <https://doi.org/10.24042/febi.v4i1.3942>
- Satoshi Nakamoto. (2008). Bitcoin: A Peer-to-Peer Electronic Cash System. Retrieved from [www.bitcoin.org](http://www.bitcoin.org)
- Tim Emir. (2016). *Panduan Zakat Terlengkap*. Erlangga.
- Umam, A. K., Putra, O. H., & Hany, I. H. (2020). Dinamika Cryptocurrency Dan Misi Ekonomi Islam. *An-Nisbah: Jurnal Ekonomi Syariah*, 07(2), 366–386.
- Vanny El Rahman. (2020). Potensi Zakat di Indonesia Mencapai Rp330 Triliun. Retrieved from <https://www.idntimes.com/business/economy/vanny-rahman/potensi-zakat-di-indonesia-mencapai-rp330-triliun/3>
- Yenny Wahid. (2021). Crypto, Halal Atau Haram Menurut Islam?