

Using Blockchain For Managing Zakat Distribution: A Juristic Analytical Study

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Abstract

This research study will endeavour, in principle, to make a significant contribution to the field of zakat management. It basically aims at suggesting a unique approach that would be practical and effective in managing the zakat sector through blockchain technology. The paper additionally deals with several current challenges encountered in the adopted approaches of managing zakat in Muslim societies; including, inter alia, inefficiency, lack of transparency in terms of fund collection, managing and distribution. In the meantime, it is hoped that blockchain technology would be adoptable effectively to address such relevant problems in a transparent and immutable manner in effect. This article will basically adopt the qualitative and data collection method. Main data will be collected through articles and dissertations because related data mainly exists in the articles and thesis rather than books. This study assumes certain fiqhi (Islamic jurisprudence) issues of using blockchain for managing zakat distribution such as establishing full-possession or tamlik (Ownership), transporting zakat funds, and transferring zakat funds directly without ruler or government interference. The findings of this paper indicate that providing a novel method, which would contribute to reducing routine procedures and playing an effective role to put an end to the administrative and financial inefficiencies that have paralysed zakat institutions. The main significant aspect of this research will be establishing an active Technological Department for the purpose of serving charitable projects and reconstructing the trust between groups managing zakat and donors.

Keywords: Technology, Blockchain, Fiqh, Zakat, Distribution.

الملخص:

ستحاول هذه الأطروحة أن تقدم مساهمة متميزة في مجال إدارة الزكاة. فهي تهدف بشكل أساسي إلى اقتراح طريقة فريدة تكون عملياً وفعالاً في إدارة قطاع الزكاة من خلال تقنية بلوكتشين. تتناول هذه المقالة أيضاً العديد من التحديات التي تواجه الأساليب المعتمدة حالياً لإدارة الزكاة في المجتمعات الإسلامية، بما في ذلك عدم الكفاءة، انعدام الشفافية من حيث جمع الأموال، إدارتها وتوزيعها، وفي نفس الوقت من المأمول أن تتمكن تقنية بلوكتشين من معالجة هذه المشكلات بشكل فعال وبطريقة شفافة وثابتة. سيعتمد هذا البحث بشكل أساسي على الطريقة النوعية وطريقة جمع البيانات، وسيتم جمع البيانات الرئيسية من خلال المقالات والأطروحة لأن البيانات ذات الصلة موجودة بشكل أساسي في المقالات والأطروحة بدلاً من الكتب. تتبنى هذه الدراسة بعض القضايا الفقهية المتعلقة باستخدام بلوكتشين لإدارة توزيع الزكاة، مثل: التملك، نقل أموال الزكاة وتحويل أموال الزكاة مباشرة دون تدخل من الحاكم أو الحكومة. تشير نتائج هذا البحث إلى أن توفير طريقة جديدة من شأنها أن تساهم في تقليل الإجراءات الروتينية، وأن تلعب دوراً فعالاً في وضع حد لعدم الكفاءة الإدارية والمالية التي شلت مؤسسات الزكاة في كثير من الحالات أمر في غاية الأهمية. يتمثل الجانب المهم والرئيسي لهذا البحث في إنشاء قسم تكنولوجي نشط لخدمة المشاريع الخيرية وإعادة بناء الثقة بين المجموعات المتصرفة في الزكاة والجهات المانحة لها.

الكلمات الدلالية: تكنولوجيا، بلوك تشين، فقه، زكاة، توزيع.

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Introduction: This paper will endeavour, in principle, to make a significant contribution to the field of zakat management. It basically aims at suggesting a unique approach that would be practical and effective in managing zakat sector through blockchain technology. In the meantime, it is hoped that blockchain technology would be adoptable effectively to address such relevant problems in a transparent and immutable manner in effect. This article assumes certain *fiqhi* issues of using blockchain for managing zakat distribution such as, establishing full-possession or *tamlīk*, transporting zakat funds, and transferring zakat funds directly without ruler or government interference. The findings of the study indicate that providing a novel method which would contribute in reducing bureaucratic procedures and playing an effective role to put an end to the administrative and financial inefficiencies that has paralysed zakat institutions in many cases is of paramount importance.

Blockchain (formerly block chain) is a growing list of records called blocks, which are linked to each other, with each block contains a cryptographic hash of the previous block, a timestamp, and transaction data. Depending on its design, a blockchain is resistant to modification of the data. It is an open distributed ledger that can record transactions between two parties efficiently and in a verifiable and permanent way. As it used as a distributed ledger, a blockchain is typically managed by a peer-to-peer network collectively adhering to a protocol for inter-node communication and validating new blocks. Moreover, when it records the data in any given block, it would not be possible to edit or change it retroactively without alteration of all subsequent blocks, which requires consensus of the network majority. Initially, blockchain was invented by a person or (group of people) using the name of Satoshi Nakamoto in 2008 to serve as the public distributed ledger of the cryptocurrency bitcoin. However, Satoshi Nakamoto is the name used by the presumed pseudonymous person or persons who developed bitcoin, authored the bitcoin white paper, and created and deployed bitcoin's original reference implementation. As part of the implementation, Nakamoto also devised the first blockchain database. (Iansiti, Marco, Lakhani & Karim R, 2017).

Zakat (*zakāh*, "that which purifies", also *zakat al-mal*, "zakat on wealth") is a form of almsgiving to the Muslim *Ummah* treated in Islam as a religious obligation or tax, which, by *Qurānic* ranking, is next after prayer (*salāt*) in importance. As one of the five pillars of Islam, zakat is a religious duty for all Muslims who meet the necessary criteria of wealth. It is a mandatory charitable contribution, often considered to be a tax. The

payment and disputes on zakat have played a major role in the history of Islam, notably during the *Ridda* wars. Zakat on wealth is based on the value of all of one's possessions. It is customarily 2.5% (or 1/40) of a Muslim's total savings and wealth above a minimum amount known as *nisāb*, but Islamic scholars differ on how much *nisāb* is and other aspects of zakat. According to Islamic doctrine, the collected amount should be paid to the poor and the needy, zakat collectors, recent converts to Islam, those to be freed from slavery, those in debt, in the cause of Allah and to benefit the stranded traveller. (Investopedia).

Financial technology companies consist of both star-ups and established financial institutions, and these companies investing in this field are trying to replace and/or enhance the usage of current financial services provided by existing financial companies, corporations and institutions. To illustrate this, a well-known company called Desto FinTech that introduced the i-Zakat service, as it occupied the first position worldwide for addressing zakat enterprises. It also funds management system, which is attractively powered by blockchain that strictly adopts the principles of transparency, efficiency and sustainability. I-Zakat furthermore prevents any potential misuse, mis-location, loss, theft and other factors contributing to the lost fund, and its approach of collecting funds cuts down the intensive and manual labour, it also reduces costs of operating a continuous working system that can last for future generations. Therefore, this study aims to define blockchain technology, explore its development, explain the possibility of using blockchain technology and find sufficient methods to develop its operating system. Moreover, to analyse principal relevant issues, which maybe a hindrance, assuming that blockchain technology can be used in the handing out of zakat and suggest an appropriate solution to *fiqhī* (Islamic jurisprudence) issues arising from managing zakat distribution through blockchain. (DESTO FinTech).

LITERATURE REVIEW

This research is primarily related to managing zakat distribution through blockchain technology. Hence, reviewing written books, thesis and articles in this field is of inevitable significance. Some of the literature that deals with the digital technology framework include the following:

Article entitled "*Pembangunan Ekonomi Melalui Agihan Zakat: Tinjauan Empirikal*", translated to "Economic Development Through Zakat Distribution: An Empirical Review", Patmawati Ibrahim has expounded that poverty and destitution are among the social problems which zakat aims to eradicate. The poor and needy are entitled to the proceeds of

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zakat while the rich on the other hand should contribute toward the fund. However, the borderline between the two is indeed vague and unclear. Some see the ability to earn as a state of being classed as rich, whereas some people who are able to earn can still be categorised as poor. It is noted that Patmawati Ibrahim clarified important points regarding the distribution of zakat, but she did not mention the fundamental solution to these problems. Therefore, the researcher of this study will search for the best way to solve these problems about zakat through blockchain technology. (Patmawati Ibrahim, 2008).

Another research by a group of authors (Zainal, Hafizah, Omar & others 2016) entitled “*Managing Zakat Fund In Malaysia*”. They discussed the zakat fund in Malaysia, in particular the distribution of zakat. They pointed out that there are many issues that occurred in zakat institutions. Inefficiency in zakat funds management involves zakat distribution. In their study, they also discussed the aspects of justice, rights, channels and methods of zakat distribution, also it is mentioned that the issue of zakat distribution had attracted the attention of the Muslim community dramatically. These problems are required proactive actions of the various parties in addressing this problem. Moreover, there are lots of complaints received each year against zakat institutions, particularly in relation to the method of zakat fund distribution. There are a number of researchers who have discussed the issue of inefficiency of management in the zakat fund distribution. Although the collection of zakat is getting better year by year, but the issue of zakat distribution still raises a lot of debate and concerns. It can be seen from their research, which showed zakat payers are still not satisfied with the zakat distribution, and privatisation of zakat institutions failed to increase the level of trust zakat payers against zakat institutions. However, it is noted that the researchers here have not reached an optimal way to solve these problems about the distribution of zakat. Therefore, the researcher of this current study will try to show some new methods to distribute zakat funds in the best way, for example following up the recipient’s condition after receiving zakat funds through an efficient and reliable technology platform such as blockchain.

In her article, entitled “*Islamic finance and blockchain: Can it bring greater impact?*” Gratiyana Ningrat, which has been published by The Jakarta Post. So, she mentioned that according to Thomson Reuters’ projections, the Islamic finance assets are projected to grow to RM12.8 trillion (\$3.2 trillion dollars) by 2020. It depicts Islamic finance potentials to support the Sustainable Development Goals (SDGs) by providing inno-

vative financing solutions. Compared to the individual contributions, giving zakat or *sadaqah* (charity) through formal institutions, and investing in Islamic bonds can increase outreach, targeting the people in need and providing a more strategic and sustainable solution. However, there are also several challenges in this regard; inefficiency, a lack of transparency in terms of how the funds are collected, managed, distributed, and the differing views of Islamic scholars on how these should be dealt with the rulings or *fatwa*. The author of this article does not indicate about blockchain as a new way for managing Islamic funds, such as zakat management using blockchain. However, using blockchain strengthens trust in donors and eliminates the lack of transparency. (Gratiyana Ningrat, 2018).

“*Legal Information Management*”, is another work by Rust Kimberley. It explains that blockchain, arguably the most discussed and promising of financial technology trends, has an incredible potential to transform legal technology (Legal service). Distributed ledger technology (DLT) moreover has been known to be the technology behind cryptocurrencies. As a form of DLT, blockchain allows the secure decentralisation of peer-to-peer and irreversible exchanges and providing an irreversible transparent record when it occurs. It is worth noting that Rust Kimberley does not indicate that blockchain is not destroyable and erasable, which makes blockchain more secure and reliable to distribute zakat funds. (Rust Kimberley, 2019).

The *International Shari’ah Research Academy for Islamic Finance (ISRA)* is looking for relevant parties to pilot a blockchain project designed to optimise the collection of Islamic charitable donations to be known as ZakatTech blockchain. The project is collaboration between ISRA and SysCode Sdn. Bhd. (A software development company specialising in the development of customised cloud based business solutions) and will enable funds to be tracked throughout the whole process lifecycle, from the point of donation to the distribution of funds. The main goal is to enhance community confidence to increase income and effectively distribute zakat to raise the level of society's economy. “We believe that our vision of this platform is able to complement rather than compete with other Islamic FinTech or Halal initiatives as collaboration is a key to its success. We are developing a platform that we strongly feel could provide an unprecedented layer of trust and transparency to the ecosystem as a whole,” SysCode CEO, Reza Ismail said. On the other hand, the researcher aims to show some new methods of using blockchain technology to distribute zakat funds, such as helping the poor and needy by covering some aspects of their lives such as paying their study expenses or ensuring their health

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through a technological management platform such as blockchain. (ISRA, 2019).

Analysis of the literature review revealed the challenges and obstacles that exist around zakat institutions, particularly the inefficiency in distributing zakat funds. Therefore, many of the methods remained undiscovered. Moreover, there is a lack of literature explaining how to address the challenges that exist around the distribution of zakat funds, in order to improve managing zakat distribution in the future. However, the researcher aims to provide a new method for managing zakat distribution through blockchain technology. This study assumes certain *fiqhi* (Islamic jurisprudence) issues of using blockchain for managing zakat distribution such as establishing full-possession or *tamlīk* (Ownership), transporting zakat funds, and transferring zakat funds directly without ruler or government interference.

Blockchain as an alternative platform to manage zakat distribution

Zakat is one of the instruments for the distribution of property among Muslims as the properties reach a certain quantity (*nisāb*) and time (*haul*). It prevents the wealth concentrated only among a few people. According to *surah at Taubah*, zakat given to specified beneficiaries (*asnāf*) or *mustahiq* namely the poor, the needy, the administrator of zakat (*amil*), new Muslim (*muallaf*), slaves (*riqāb*), the debtors for their needs (*gharimīn*), in the cause of Allah (*Fī sabīlillah*), and travellers for Allah's sake (*Ibnu sabīl*). The *asnāf* mentioned above are mostly people who do not have the purchasing power to fulfil their needs; whereas there is a minimum requirement to be fulfilled for living. As zakat is very important, Caliph Abu Bakr and his companions declared war to every Muslims who were reluctant to pay zakat. (Al Qardawi, Yusuf, 2000). In that era, zakat was paid through the state (*khilāfah*). But nowadays, there are several ways for Muslims to pay zakat, directly to the *asnāf* or through the institution of zakat, while the latter gives more advantages.

Some of the advantages of paying zakat through institutions are that collected money can be distributed properly to the *asnāf* because they already have a deserved (*mustahiq*) database. It will minimise the overlap over the deserved (*mustahiq*) and extent the outreach. In addition, zakat institutions already have programs in accordance with the ability of the *mustahiq* if the zakat is channelled productively. Although many Muslim countries have either state zakat institutions or institutions recognised by the state, the acquisition of zakat received is still less than its potential.

One of the reasons was about the trust of zakat payer to the zakat institutions. The question that arises is, if the payment of zakat through zakat institutions is constrained by the issue of trust, could the blockchain mechanism be the answer?

A blockchain is invented from blocks of data that are linked through a sequenced cryptographic chain with hashes contain three main elements namely block data, chaining-hash, and block-hash. By using blockchain, both parties can have transactions without using third parties, so it will reduce the cost. Blockchain technology brings together Islamic values (trust, justice, equality, and efficiency) in finance that formulate and uphold the spirit of Islamic finance. This is in line with the expectations of all stakeholders of Islamic finance. Blockchain's records of transactions cannot be manipulated or altered. Hence, it fulfils the Shari'ah compliance aspects of Islamic finance.

Designing blockchain mechanism to zakat is highly possible since it can be used not only for commercial but also for other purposes. The zakat payers (*muzakkī*) simply pay zakat through the applications of blockchain. In such applications, zakat institutions offer the programs they have planned. As *muzakkī* already choose one of the zakat institutions and pay their zakat, then the funds of the transaction will be recorded in the blockchain ledger. Therefore, every transaction becomes transparent and accessible to everyone within the network. Every transaction in the blockchain is permanent and will be distributed in a wide network. It prevents the zakat institutions to misuse the zakat fund. (Beik, Irfan Syauqi & Others, 2019).

The world presently houses 795 million hungry people with approximately 4.95 billion people living on less than Rm40 (\$10 dollars) a day. Zakat is an obligation on Muslims to give 2.5% of their accumulated wealth annually for charitable causes. Rm500 million (\$125 million dollars) donated by zakat and *Sadaqah* (charity) helped 8.3 million people in 2015. The amount Rm500 million (\$125 million dollars) represents 0.063% of the lower threshold of the total zakat collected annually. The process of donation is ridden with several problems. There exists reliance on third parties for donation-based payments, absence of an easy and transparent way to donate and an inefficient distribution of money depriving the ones in need. The charities presently are always under scrutiny for the discharge of money made available to them while the end receivers remain at the mercy of charities. There are presently 1.7 billion Muslims with no transparent service to aid in the discharge of the religious obligation of zakat. (Khan, Nida, and Rachid Ouaich, 2019).

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With the dynamic technological development, especially the emergence of blockchain technology, zakat collection and distribution would be more systematic and could be further enhanced as blockchain offers an immutable, secure and transparent, thus addressing the stabilisation of the Islamic non-bank financial system for zakat activities. The potential use of blockchain technology and digital wallet would address the world's problem of alleviating poverty and achieving social justice as it can be accessed globally, and be able to track the collection and distribution of zakat. The blockchain technology is such that transaction cannot be altered. The technology will ensure that zakat donations and funding will reach directly to the zakat recipients. A clear financial and regulatory *maqāsid al-Sharī'ah* (purposes of Islamic law) guidelines at the local, regional and international level would be ideal to optimise blockchain technology such as in digital wallets. However, in order for this to happen, the first step is to introduce the blockchain technology to the *Ulama* (Islamic Scholars) regarding the concept, knowledge and characteristics of blockchain technology in the perspective of *maqāsid al-Sharī'ah* for their acceptance in dealing with Islamic social financing purposes.

Development of blockchain technology for use in zakat distribution and its obstacles

In Federal Territories of Malaysia, zakat is considered as part of public finance and the efficiency of the zakat authority (hereafter *Baitulmāl* - MAIWP) who manage the zakat and its ability to target the socioeconomic development would be subject to public scrutiny. The transformation programs such as free market and Industry 4.0 changes the landscape of zakat development. It acts to preserve the growth of wealth and to protect the rights of *asnāfs* (recipients). To accomplish these aims, the government passed laws and created governance. It shows that the government has a role in zakat development. The government have a wider range of plans and schemes in place to promote and accelerate the zakat development and to ensure that the ambition of being a fully developed zakat system could be fully realised. In Malaysia, the government's initiatives fall under the responsibility of Jabatan Kemajuan Islam Malaysia, which falls under the Prime Minister's Department. Later, Jabatan Wakaf, Zakat dan Haji are responsible for implementing the transformation programs and assess the progress of these initiatives. (Ismail, Abdul Ghafar, 2019).

Based on the literature, it has shown that Muslims scholars are studying the issue of Islamic finance extensively in recent years. Most of

the researchers have discussed the issue of digitalisation, innovation and sustainable development in conventional finance perspectives. Some of the researchers have pointed out the conceptualise issue of FinTech, cryptocurrency, and blockchain. Interestingly, most of the researchers ignore the broader area of sustainable development. There are a few studies that focus on the current research area of digitalisation, innovation and sustainable development in Islamic perspectives. (Hisham, Mohamed, and Md Kausar Alam, 2019).

As mentioned earlier, there are eight applications of zakat mentioned in the Holy Quran and five of those applications are related to the poverty alleviation. To help the poor is the basic teaching of Islam. Helping poor people in this difficult time will bring two benefits to the wealthy or rich people as it will purify their wealth and heart from greed as promised by Allah, and it will also contribute in the economic growth of the country. There are many objectives of paying zakat, the most important of them is to help the poor and needy to attain the minimum standard of life. Due to COVID-19 and other diseases, the poor and daily wage earners are in urgent need of funds, and those who are eligible to pay zakat, even the zakat institutions and zakat collection centres can use this money to help the poor and needy during this difficult time. In addition, because of COVID-19, people must keep a social distance for the safety of our community.

Hence, it is necessary for technological platform such as blockchain for managing zakat distribution, to avoid communicable diseases. From all above, it can be concluded that it is too early to estimate the exact amount of damage done by the global COVID-19 pandemic. The views from experts show the poor people, even the small and medium-sized enterprises (SMEs) are going to be worst hit by COVID-19. As always, Islamic products and services are the complete way of life and it provides an effective tool in terms of zakat, to not only help these two important sections of society but also minimise the damage on them. Now, it is the responsibility of the government, civil societies and rich individuals to use these Islamic smart apps or tools and provide the benefit to the poor and needy people. Islamic products and services must be combined with technology to increase its reach and to achieve the broader objective of social justice and providing quality life to each and every Muslim across the globe. It is further concluded that zakat must be used with technology to achieve the objective of Islam, to treat every member of the *Ummah* (Muslim nation or community) as brothers, sisters and reach to them with the right intention in times of pandemic like COVID-19 as Allah is the best to

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judge the intention and gives the reward. (Haider Syed, Mohammad, Shahnawaz Khan & Others, 2020).

Blockchain is unlike the internet that we know. It is a new revolution, which enables mass collaboration among the society. A report by Stanford University in 2019 reveals that 55% of blockchain-oriented initiatives are projected to contribute positive changes to individuals' health, education and financial conditions. So many lives are at stake due to changes which are happening in their area. Be it declining business activities, decreased consumer buying power or economic uncertainty that risks the livelihood of not merely the poor but also those who live slightly above the poverty line. Blockchain with its promise of better problem-solving, enables us to create solutions, which were previously not thought about. (Galen, Doug, Nikki Brand & Others, 2018). For example, HalalChain, a study by Namira Samir mentioned that the first public blockchain that focuses on facilitating traceability and distribution of social funds such as zakat and cash *waqf* (an inalienable charitable endowment), as well as other Islamic financial products, all aiming to improve financial inclusion and alleviate poverty. In response to high poverty rates in Muslim countries and among Muslim communities, HalalChain is working on creating a decentralised solution based on blockchain and Internet of Things (IoT), which enables the government to execute its programmes specifically addressed to a targeted population. HalalChain is one vivid example of a blockchain service provider that goes beyond "facilitating payments and verify records." It seizes the opportunity of distributing wealth more equally through technology. As we all know, the real problem of realising the global goals is not the lack of funds, it is purely the absence of a reliable means of collecting them from various sources, including charitable donations as well as alternative finance instruments.

in spite of observing multiple problems and variable obstacles that might impede the process of assuming blockchain technology and employing it in the field of zakat management, such as the lack of access to the internet for some poor and needy societies or groups, and the limited use of technology in some other cases. There are viable hope and prospects for better management of the distribution of zakat through blockchain as well. Nowadays we can adopt blockchain in developed countries and technologised societies. It can also be utilised in any other country where internet services are available.

A Proposed Framework to Distribute Zakat Through Blockchain Technology

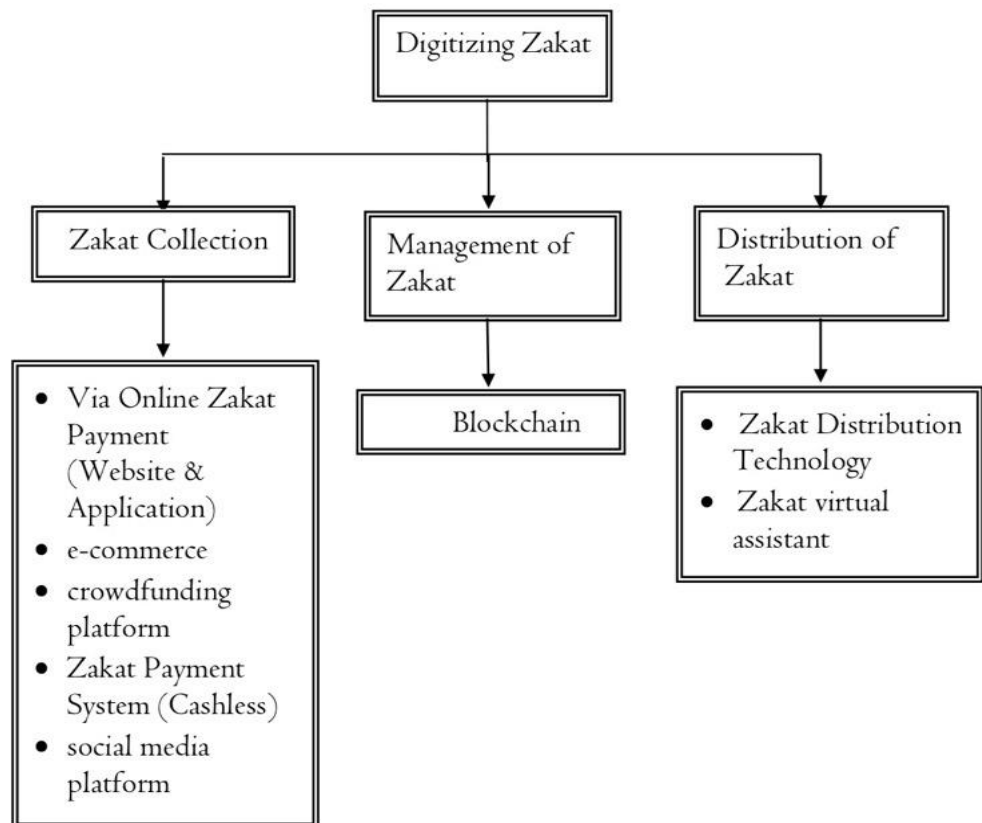
In this twenty first century, the advancement of technology influences our way of life, even payment methods have become digital. Individuals need no longer dig through their wallet to pay, instead they use their credit and debit cards. Digital wallet helps the individual use their smartphone application as a payment method thus, addressing the potential pitfalls of using credit cards. The digital wallet is similar to a payment card except that it works out of an application. The individual loads funds into the virtual wallet to use it for payment of goods and services. The working mechanism differs from each types of digital wallet either by using QR code scanning for establishing a connection or using internet transactions. With the advancement of technology, the payment landscape of zakat changes accordingly, which means a payer need no longer pay at the counter, but transactions can be conducted with convenience at home and with compliance to *Shari'ah* Law. Every year, each Muslim has a duty to pay zakat, compulsory alms as stipulated in the five pillars of Islam. The obligation of a Muslim to pay the zakat contribution based on his wealth according to specific conditions as well as certain requirement. Blockchain offers an immutable, secure and transparent process, thus addressing the stabilisation of the Islamic non-bank financial system for zakat activities, addressing the world's problem of alleviating poverty and achieving social justice. However, the first step is to introduce the blockchain technology to the *Ulamā* (Islamic Scholars) regarding the concept, knowledge and characteristics of blockchain technology in the perspective of *maqāsid al-Sharī'ah* (Purposes of Islamic law) for their acceptance in dealing with Islamic social financing purposes. (Salleh, Wan Nur Azira Wan Mohamed & Others, 2019).

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A study by Ivan Rahmat Santoso titled, “Strategy for Optimizing Zakat Digitalization in Alleviation Poverty in the Era of Industrial Revolution 4.0”, mentioned that the distribution and empowerment of zakat funds is not only the duty of each individual. Zakat funds can be collected in an agency or institution that can distribute and empower zakat funds that are managed by a country, with the aim of resolving poverty that improves the economy of a country. They are tasked with distributing and empowering zakat funds to people who are entitled to receive zakat funds. (Santoso, Ivan Rahmat, 2019).

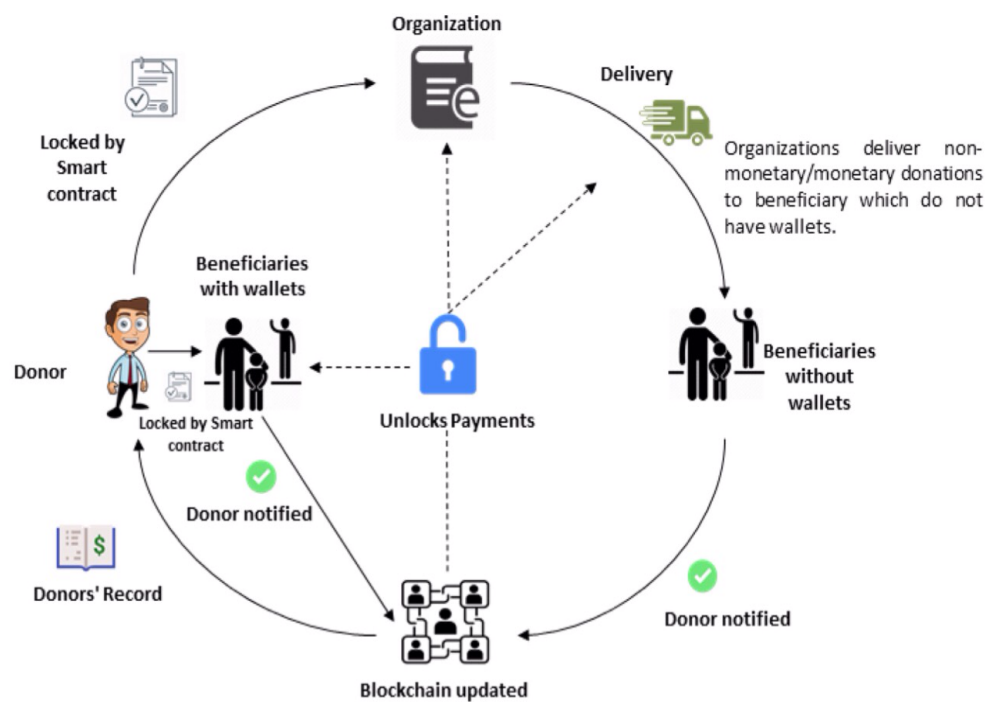
Source: Santoso, I. R. (2019). IKONOMIKA: Jurnal Ekonomi dan Bisnis Islam.

Figure I.
Mechanism of Digitizing Zakat



In addition, a research by Farooq et al., entitled, “A framework to make charity collection transparent and audit-able using blockchain technology”, are talking about how to make charity collection transparent and audit-able using blockchain technology. The writers of this article suggested a framework for their ideas, which is near to researcher of this current study framework for managing zakat distribution through blockchain. (MS farooq).

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According to what was mentioned earlier, it can be said that “using technology is allowed because everything is *mubāh* (permitted) unless proven otherwise”. A good framework for managing zakat distribution through blockchain technology should be proposed and this leads to re-creating trust amongst the rich entities or zakat payers.

Fiqhi issues of managing zakat DISTRIBUTION

Tamlīk issue

Scholars of *sharī'ah* have differing opinions about this issue. Therefore, the researcher talks about the issue of *tamlīk* (ownership), which is an issue related to the distribution of zakat through blockchain

and the establishment of zakat projects and programs. The researcher mentions the opinions of scholars in this regard, and it is a well-known jurisprudential issue in terms of opinions and evidence, but the researcher tried to extract their opinions and ideas and conclude what is weighted by the majority of jurists (*Jumhūr*). The process of handing over the zakat (*al-tamlīk*) has been substantially discussed by the majority of classical jurist. As to whether zakat funds can be utilised in financing development projects and trade ventures to expand its disbursement beyond the current need of the recipients, especially among the poor and needy, the jurists have generally held two diverging views. One group maintains that the zakat collections must be disbursed immediately to the recipients; the state has no standing to invest it with the view of generating more income. Their main arguments are: firstly, it does not only blur the designated class of beneficiaries, it also contravenes the principle of *tamlīk* (ownership) by the recipients, namely the *faqīr* (poor), *miskīn* (needy), *amil* (zakat officer or worker), and *mu`allafat al-qulub* (reconciling the hearts to Islam) among them. The reason being the *Qur`ānic* use of proposition li with reference to them implies the transference of zakat from the owner of the wealth to these groups. Hence, the ruler has no such discretion on the matter. Secondly, it is against the condition of prompt distribution of the zakat to its recipient. This is the view of the majority of jurists who argued that delay might be detrimental to the interest of the poor in the event that the fund is destroyed or lost. Thirdly, zakat is not supposed to be reserved for future needs, rather it is primarily designed to alleviate the present economic needs of the recipients. Lastly, using zakat in income earning projects is a kind of disapproved innovation in the area of immutable aspect of Islam, i.e., legislating on a pillar and religious rite, thus ultra vires of the Islamic law. (Mahmud, Mek Wok, and Sayed Sikandar Shah, 2009).

On the contrary, the majority of modern jurist like (al-Qaradawi, al-Zarqa, Wahabah al-Zuhayli al-Nabhan, Shahhatah) disagreed and rebutted the opponents' arguments by saying: First, according to the majority of classical schools, the ruler can spend the entire zakat fund for the benefit of one class alone and at different rates. Second, it is also not against *tamlīk* (ownership) as some jurists like *Hanafīyyah* and *Shī`ah Zaydiyyah* regarded feasting and clothing of the poor from the zakatable income of the zakat payer as the fulfilment of their zakat. Thirdly, zakat disbursement does not have to be prompt as maintained by Abi Bakr al-Jesses of the *Hanafīyyah* and al-Razi and *Shi`ah Imamiyyah*. According to al-Razi, it is a well-established principle of *usul al-fiqh* (principles of Islamic jurisprudence) that mere command (to give zakat) does not require delayed or

prompt disbursement but require the disbursement itself (sooner or later). The *Hanafiyyah* also generally classify zakat as an obligation with extended due time “*wajib muwaasa*” by al-tarakhi. Accordingly, instead of giving the poor recipients their share in lump sum, they could be given monthly stipend from the proceeds of the zakat investment. Fourthly, future financial security is an important element as the Prophet Muhammad (PBUH) urged Muslims to leave their off springs wealthy rather than leaving them poor to become a financial liability on the people. Moreover, the very fact that Umar was insistent on giving the poor an amount that would suffice them for rest of their life, the *Hanafis* and *al-Shafi`is* agreement on providing the poor with tools of labour from zakat funds to become self-reliant, are cogent proofs that zakat can be used for future security and the need of the recipients. Finally, it is not an innovation of denounced type (*madmumah*) as it benefits the recipients and not harm them, thus belonging to the category of approved/praiseworthy innovation (*mahmudah*), which can be initiated on financial matters, such as zakat.

Accordingly, the majority held it to be permissible provided that:

- The ultimate ownership of its return and the capital sum be spent on the recipients.
- Only the surplus funds should be invested.
- Investment activities should be carried out with extra caution and prudent financial planning so as to avoid loss to the pool of zakat property. (Shah, Sayed Sikandar, 2013).

The issue of *tamlīk* (ownership) in the distribution of zakat fund has different views like all *fiqhī* (Islamic jurisprudence) issues, but it is up to the rulers and *Sharī'ah* scholars to consider the interest of the society (*maslahah*) it is one of *maqāsid al-Sharī'ah* (Purposes of Islamic law), while it is known to all that Islam came to preserve and take care of people's interests (*maslahah*).

The Issue of Transporting Zakat Property from Where It was Collected or Obtained

It is worth mentioning that the issue of distributing zakat funds through blockchain platform may open the way for transporting zakat funds from one country to another. Technology has no limits especially blockchain, and one can transfer zakat money from somewhere to another within seconds. Hence, the question arises: is it permissible to transport/transfer zakat property from where it was collected or obtained? In short, is it permissible to transport/transfer zakat funds? The jurists have different opinions on this issue, some of them agree and some of whom

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disagree. Therefore, the researcher will try to give their opinions and evidence and conclude what is weighted.

Scholars have discussed this as well because most of the disasters that occur are usually not where the zakat is collected or obtained, but in places where the poor and needy call home. In fact, it may involve the crossing the borders of countries or continents.

According to the views of most scholars, they do not approve the transfer of zakat property from the place where it collected. Regardless of the zakat of animals, grains or *zakat-ul-fitrah* (tithe). It originally had to be divided into the society where it was collected. This is what Muaz did when he was commissioned by the Prophet Muhammad (PBUH) to be the operator of zakat in Yemen. It is supported by scholars because the purpose of zakat is to ease the burden of the poor in the area with the acquisition of wealth of rich and wealthy people. However, scholars have also agreed to allow the transfer of zakat in case of any of the following: the locals do not require the zakat property; there is no *asnaf* (recipients) in the area; lack of people who need it to the property (less *asnaf*); and too much zakat property from the area.

Whenever the situation occurs, then it is required that the head of state transfer the zakat property according to the *maslahah* (interest) and be given to the nearest country. This situation is narrated by Abu Ubaiyd in his book, *al-Amwal* that *Sayyidina Omar RadhiAllahu'anhu* has dismissed the property of zakat which was sent to Medina by Muaz at first. But in the end, he accepted for the reason given by Muaz because of the delivery of zakat property. But if there is still a need in the state, there is a difference among the opinion of the scholars whether it should not be allowed (the opinion of *Shafi'i Mazhab*) or *makruh* (disliked or offensive act) (views of the *Hanafi* School) or seen to the distance (according to the *Maliki* School). (Zaenal, Muhammad Hasbi & Others, 2019).

Furthermore, according to Qaradawi, if there is zakat fund surplus and it is certain that no one is eligible to receive the zakat distribution in that region/state, the surplus should be distributed to another regions/states that have a lesser amount of zakat collected compared to zakat that needs to be distributed. However, this should depend on the consent of the majority of scholars. The transfer of zakat fund surplus to regions that experience zakat deficit may be able to reduce social and economic inequalities between regions and states. (Saad, Ram Al Jaffri, Norfaiezah Sawandi & Other, 2016).

Traditionally, zakat should be spent in the area where it collected within one lunar year and this requirement can inhibit the use of zakat for

international development purposes. However, the Sharia Board of the Zakat House of Kuwait permits funds to be transferred to areas where there is greater need. (Habib, A, 2004).

In brief, there is no reason why the general principle should not have exceptions, especially if the exception is made by a just government in consultation with the representative council, in view of the public interests of Muslims and Islam. As Malik wonderfully puts it, “Transporting zakat is not permissible, except when done through the government’s *ijtihād*, in view of pressing need”. Ibn al Qasim, Malik’s disciple adds, “If this is done out of necessity, it is all right”. Suhnun reported to say, “If the government knows a certain land has dire need, it can lawfully transport some of the collected zakat there. When catastrophe befalls, relieving its victims has priority above other uses of zakat, since a Muslim is a brother to a fellow Muslim; he does not let him down nor oppress him”. In the book of *al Mudawwanah*, Malik mentions that in the year when famine hit al Madinah, Umar wrote to Amr bin al-As, who was in Egypt, “Help, help, to the Arabs. Send us a caravan whose beginning should reach me while its end is still at your place, loaded with flour wrapped in garments”. Omer, when the relief arrived, divided food and clothes among the hungry people and appointed assignees to help slaughter the camels, saying, “Arabs love camels. I am afraid they may prefer to keep them alive. Have people slaughter the camels and eat their meat and fat and give them the garments that are used as bags of flour, to wear”. The idea of using blockchain to distribute zakat funds is to serve the beneficiaries in the best way, and the main goal behind that is to achieve people’s interests (*maslahah*). (*Al Mudawwanah al Kubra*).

The Issue of Transferring Zakat Funds Directly Without Ruler or Government Interference

Zakat has many dimensions, such as the religious, social, economic and political dimensions. Therefore, the researcher of this current study will try to share the opinions of the jurists, present their evidence, and most importantly, a summary of their statements and find a suitable solution to this issue.

Zakat al-fitr (tithe) was made compulsory earlier than zakat *al-māl* (zakat on wealth). However, it is not clear whether zakat *al-fitr* was administered by the state ruler from before 2 Anno Hegirae (AH). Prophet Muhammad (PBUH) as the ruler of Medina, began collecting zakat in 8 AH, a year before zakat *al-māl* was made compulsory for Muslims, by

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sending ‘Ala al-Hadrami to Bahrain and ‘Amr to Oman as zakat *amil*s (zakat collectors). Later, the Prophet Muhammad (PBUH) sent zakat collectors to 31 places/tribes all over the Arabian Peninsula. Therefore, as many modern researchers have pointed out, the administration of both types of zakat was controlled by the ruler of the Muslim state. (Qaradawi, Yusuf, 1999). The question is whether Muslims should pay zakat to rulers. The majority of jurists during the early period of Islam, among them Sa‘d ibn Abi Waqqas (d. 55 AH), Abu Hurayra (d. 57 AH), Abu Sa‘id al-Khudri (d. 74 AH) and ‘Abd Allah ibn ‘Omer (d. 73 AH), held the view that whatever the situation, zakat must be paid to the state ruler. On the other hand, some jurists, such as ‘Abd Allah ibn ‘Abbas (d. 67 AH) and Sa‘id ibn Mu-sayyib (d. 94 AH) considered it preferable to pay zakat directly to the beneficiaries. (Siddiqi, Mohammad Akhtar Saeed, 1983).

Later, the majority of jurists from the main four Sunni schools of thought agreed that zakat could be paid to oppressive rulers if they distribute the proceeds fairly to the beneficiaries. Ahmad b Hanbal did not see any difference between visible and invisible property, and therefore zakat could be paid to oppressive rulers if they distribute zakat fairly to the beneficiaries. Abu Hanifa declared that the required portion of both visible and invisible property should be paid to the ruler, provided that it was distributed fairly to the beneficiaries, even though he might be considered oppressive. This opinion was shared by Muhamad b Idris al-Shafi’i and Malik b Anas. According to Muhamad b Idris Al-Shafi’i, Malik b Anas and Ahmad b Hanbal, however, if zakat payers realised that their ruler was not distributing zakat fairly to the beneficiaries, they were allowed to refuse to hand over their zakat to the state. In this situation, Muhamad b Idris al-Shafi’i declared that the zakat payer could distribute invisible property directly to the beneficiaries instead of paying it to the oppressive ruler. (Siddiqi, Mohammad Akhtar Saeed, 1983).

In modern times, al-Qaradawi asserts that zakat should be handed over to the state ruler who intends to base his state on Islam, even if his government may not practice Islam fully. However, he prefers that a quarter or one-fifth be left for zakat payers to distribute to beneficiaries whom they know personally. However, if the rulers do not intend to base their government on Islam as the basis of their state, then zakat should not be paid to them. (Al-Qaradawi, 1999).

In compliance with the *maqasid al-Sharīah* (Purposes of Islamic law) and the principle of permissibility (الأصل في الأشياء الإباحة) also to keep pace with the development and serve the beneficiaries in the best way, the government or zakat institutions can use blockchain technology to manage

zakat funds or determine the beneficiaries, or charitable projects and programs by the government or relevant authorities by monitoring the platform.

Conclusion

It is well established in Islam that “Justice must be done and seen to be done”. In a world of intricately connected and fast-flowing information, everything can be under scrutiny, which explains why a lot of people felt dissatisfied with the current disbursement of zakat to the *asnāfs* (recipients) Therefore, there should be an improved method of data collection as we are entering the industrial revolution in our Muslim societies, in order for us to be able to utilise big data expertise experiences to refine zakat institutions. Ledgers and data of *asnāfs* and zakat contributors are rightly recorded in vast memory machines and can be utilised in a prompt manner for the use of zakat collection and distribution. The use of blockchain can be beneficial for documentation purposes due to having a bigger space capacity and more safety qualifications. This might include addressing other *fiqhī* (Islamic jurisprudence) opinions as well, such as enhancing the miscellaneous zakat payment through, for example, an electronic system of storage and transfer through equipping more advanced technology..

Finally, zakat issues as historically known, are amongst the most discussed in the texts and literatures of the practical philosophy in the Muslim world, as it bears a significant insight towards the spirit of brotherhood among the rich and destitute peoples of the *ummah* (Muslim societies). It portrays the identity of empathy, sympathy and equality of a shared community. Therefore, the objectives, regardless of the means and methods used, are mainly to spread welfare, mercy and maintain the harmony of mankind and all creatures alike.

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