

Computational Architecture of Digital Waqf in Indonesia

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Abstract: It is a necessity that information technology with the power of digitalisation is experiencing accelerated development. Its application also penetrates into various fields. On the other hand, the potential of cash waqf in Indonesia is also very large. The purpose of this paper is to describe the potential of cash waqf developed through digital mechanisms, by utilizing computing technology. The institutionalization of the spirit of digital-based waqf is the focus of attention in this study. The method used is descriptive qualitative with a literature review approach. The data taken are secondary data derived from scientific journals, academic papers, books that are compatible with this study. Digital artifacts of digital waqf institution platforms are also a relevant and main source of study in this discourse. The study found that the development and transformation of digital cash waqf began in 2012 when the Indonesian Ulema Council issued a fatwa on cash waqf. The study also found that cash waqf began to grow in the community and was amplified by the presence of digital instruments in the implementation of cash waqf payments. Many waqf institutions build digital platforms through various applications, websites and other social media.

Keywords: Architecture; Computational; Digital waqf

Introduction

The progressive expansion of Islam led to the need for expanded worship facilities and schools. The need for such facilities can be obtained from individuals who own land or buildings that are not being used by their owners. The act of land transfer can be known as waqf. With the progress of time, the waqf activity has become a culture of the wider community that is applied to this day (Prayoga & Muslihati, 2021).

Islamic philanthropy refers to the practice of voluntary giving of donations, aid and support that is based on the values and teachings of Islam (Hasan, 2024). Islamic philanthropy is one of the important pillars of the Islamic religion, as it encourages adherents to share their sustenance with others and help people in need. Some common forms of Islamic philanthropy include: Zakat (Zakat is an obligation for every Muslim who is able to pay a certain amount of wealth that has reached nishab / a certain amount to people who are entitled to

receive zakat /ustahik zakat, such as the poor, amil / zakat managers, and others.

Zakat aims to reduce social inequality and help those in need), Sadaqah (Sadekah is a voluntary gift that can be done by every Muslim at any time and in any amount (Elbanna, 2024; Kailani & Slama, 2020). Sadekah can be in the form of donations of money, food, or other assistance to those in need. The potential of Waqf as a form of Islamic Philanthropy in Indonesia promises great opportunities for the community to play an active role in helping others and developing various humanitarian sectors. As a form of philanthropy in Islam, Waqf has enormous potential in providing long-term benefits through infrastructure development, education programmes, health services, and other social welfare efforts. As a jariyah charity, Waqf reflects the values of social care and sharing that are highly valued in Islamic teachings, and can be a driver to enhance sustainable development and social progress in Indonesia (Dirie et al., 2023).

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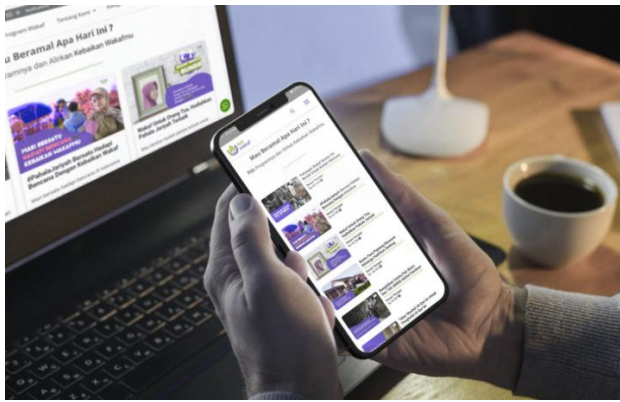


Figure 1. Waqf Digital Platform
Source: <https://ayowakaf.com/>

Indonesia as a Muslim-majority country has a huge potential of waqf assets to be developed, as stated by the Director General of Islamic Public Guidance Prof Dr Nasaruddin Umar, that waqf as one of the economic instruments of Muslims has great potential. Data from the Ministry of Religious Affairs shows that the number of waqf lands in Indonesia is 430,766 locations with an area of 1,615,791,832.27 square metres spread over 366,595 locations throughout Indonesia, even the potential for cash waqf can reach IDR 20 trillion per year. However, most Indonesian Muslims still do not understand cash waqf and still understand the giving of waqf in the old way or think it is complicated, besides that there are also many people, especially Indonesian Muslims, who think that waqf is only immovable objects such as land, buildings, and trees and wells from which fruit or water is taken (Alshanqiti, 2021; Prayoga & Muslihati, 2021).

Actually, waqf through money has long been recognised in Indonesia (Nugraha et al., 2022; Yumarni et al., 2021). It's just that nowadays, people have started to be educated about how to do waqf through money. It is now easier for people to receive information about waqf through news portals and social media. The ease of waqf through digital media is supported by the emergence of various crowdfunding platforms and Islamic fintech (Hapsari et al., 2022). Therefore, innovations continue to emerge until waqf is as easy as just one click away.

Now, we want to describe the computational model for managing about waqf in Indonesia. The next text is about big narration and deeply discussion in order to get the comprehensive understanding. That is also about big data in waqf fields and could be more completely shown on you all.

Method

The type of research the author uses is qualitative research. Qualitative research is research whose final results produce descriptive data sourced from

information on people and behavior that is usually observed directly. This means that the author will provide factual information in data and information because of direct observation. The approach used is ethnography. Ethnography is a building of knowledge that includes research techniques, ethnographic theory, and various kinds of cultural descriptions (Wijaya, 2018).

On another way an SLR is the best way to identify, evaluate and interpret the available data which has already been condensed and produced by other researchers, allowing a greater structure of a specific field of knowledge and leading to new forms of understanding and connection (Pereira et al., 2023).

This research is about qualitative study and could be more deeply understanding about the problems here (King, 1991). SLR is meant to be more objective and transparent than traditional reviews, thus providing guidance for future researchers and relevant information on the issues they mean to research. It is also important to mention that an SLR has a transparent procedure that can be replicated, allowing researchers to be more effective throughout the whole process, analyzing all the factors of the research made by others (Pereira et al., 2023).

Result and Discussion

Waqf has developed very rapidly in Indonesia, from the traditional to the professional level traditional to professional level. In the professional period, waqf has transformed both conceptually and institutionally. The conceptual transformation of waqf can be seen in the emergence of productive waqf and cash waqf (Istikomah & Bashori, 2022). With proper management, productive waqf in Indonesia has great potential to improve people's welfare, support social and economic development, and advance various sectors, including access to education, health, and others in the country. Productive waqf also enables community economic empowerment and contributes to sustainable development in Indonesia, known as SDGs, where the government and society are committed to achieving the Sustainable Development Goals (SDGs) set by the United Nations (UN).

Every UN member state, including Indonesia, has the responsibility to plan, implement, and monitor progress towards achieving each of the SDGs goals and targets. One of the goals is to overcome the problem of poverty. Poverty alleviation through social assistance programmes, increased access to employment, and community economic empowerment. This can be done by exploring the potential of waqf as a form of philanthropy in Islam.

Waqf al-nuqud or cash waqf is another term for cash waqf, which is based on the fatwa on cash waqf issued by the Indonesian Ulema Council (Adinugraha et al., 2024). based on the fatwa on cash waqf issued by the Indonesian Ulema Council, which is an act that can be carried out by individuals, groups, and legal entities. The cash waqf in question also includes securities. This makes cash waqf as a form of investment carried out by distributing the proceeds of capital principal, so that this waqf can be a component of productive waqf. Meanwhile, the law on waqf in Law No. 41 of 2004 states that the specification of waqf in the form of money is a movable object that is allowed (Amaliyah et al., 2022).

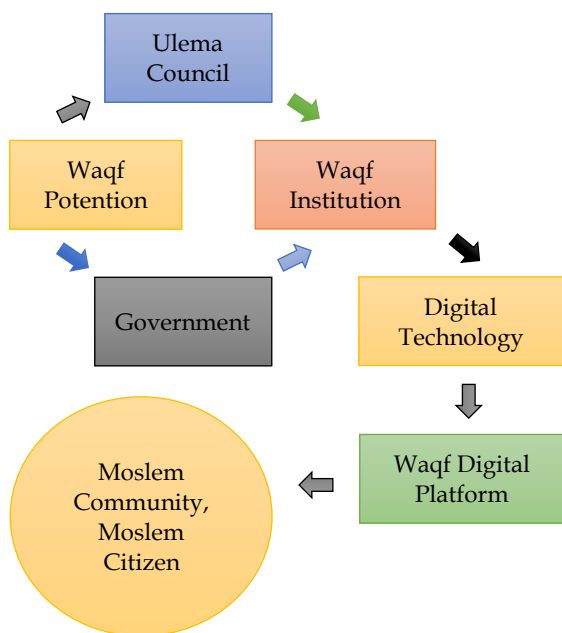


Figure 2. Design of Digital Waqf Flow
Source: Author, 2023

Furthermore, we will discuss or give examples of some waqf institutions that use the digital world to raise waqf funds from the public. This digital format fundraising base has become a trend and even an important necessity in this fast-paced and simultaneous world.

Berkah Wakaf

Berkah Wakaf is one of the digital waqf services utilising the internet and technology managed by the Indonesian Waqf Board (BWI). In Berkah Wakaf website, waqif can choose their own waqf programme, such as health waqf, education waqf, economic waqf, or even dakwah waqf. Then within these programmes, there will be several projects organized. Each waqf programme will have details such as the background of the waqf programme, fundraisers, the number of waqifs and waqf

funds collected, as well as the latest information updates (Al-Saudi, 2024; Amaliyah et al., 2022).

Jadi Berkah

Jadi Berkah is one of the zakat, infaq, and waqf (ZISWAF) service providers managed by Bank Syariah Indonesia (BSI) digitally online. *Jadi Berkah* has two main programmes, namely waqf through money and cash waqf. Waqf through money is a type of waqf carried out by individuals, groups, institutions, or legal entities in the form of cash which will then be realised in the form of certain waqf objects according to the provisions determined by the waqif. Meanwhile, cash waqf is a type of waqf carried out by individuals, groups, institutions, or legal entities with the preservation of the principal value of cash, which cannot be sold, donated, or inherited. The waqif can also choose a waqf project based on the time limit, waqf (Amaliyah et al., 2022).

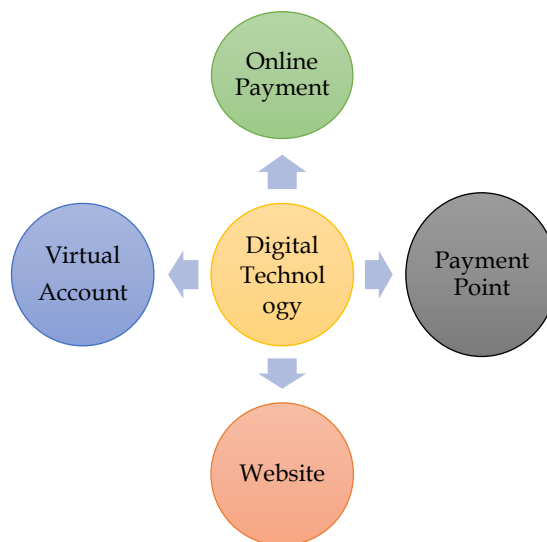


Figure 3. Payment Model for Digital Waqf
Source: Author,2023

Dompot Dhuafa

Dompot Dhuafa is one of the platforms that provides donation services, such as zakat, waqf, infaq/edakah, and humanitarian donations. *Dompot Dhuafa* has waqf services with various programmes, such as mosque waqf, health waqf, well waqf, vehicle waqf, productive asset waqf, education waqf, and economist waqf (Amaliyah et al., 2022).

Waqf through money can be an option for anyone. This is because waqf through money can be collected collectively or individually. The mechanism is easy and can be done flexibly anywhere and anytime. Waqf through money on digital platforms arouses the interest of prospective waqifs who are busy with their daily activities. It is also an option in the midst of limited interaction during the current Covid-19 pandemic.

One example is the ease of digital waqf through Baitulmaal Muamalat's waqf website platform such as *ayowakaf.com*. As a nazir, there are various empowerment programmes that have been running such as education waqf, mosque waqf, disaster waqf, well waqf, and others. Baitulmaal Muamalat (BMM) is only one of the many nazirs in Indonesia that implement waqf digitalization (Arief et al., 2024). This convenience leads to various perfect goodness.

The important components of digital financial inclusion include but are not limited to digital transaction platforms, which allow customers to make payments and to store electronic value (Mhlanga, 2020). The global phenomenon of digitalization and robotization has a significant impact on the world of work and job markets (Mazurchenko & Maršíková, 2019). Bank Indonesia (BI) divides FinTech into four categories, peer-to-peer (P2P) lending and crowdfunding; market aggregators; risk management and investment; and payment, clearing and settlement (Santoso et al., 2020).

Waqf is not like ordinary charity, but greater in rewards and benefits especially for the endowers themselves. Because the rewards of waqf continue to flow as long as it can still be used (Luthfie et al., 2022). Waqf is a powerful tool for sustainable community development, especially among Muslims. The management of waqf assets is crucial to revive the existence of waqf in Indonesia. Therefore, fundraising for waqf purposes must be supported by a sophisticated and reliable platform that is able to connect between fundraisers and donors, through financial intermediaries using the internet as a platform (Bin-Nashwan & Al-Daihani, 2021).

Therefore, in this paper, we have explained crowdfunding and its application to operationalize waqf by providing general information and models of waqf crowdfunding. Technology as a fundraising tool has become so popular that waqf entities should utilize it. It is a way out to accelerate and assist waqf in expanding its core value and usefulness. It can be further concluded that crowdfunding for waqf carries a profound shadow as it is attached to the religiosity of Islam (Luthfie et al., 2022).

Waqf in Islamic history has played an important role in the socio-economic and socio-political development of Muslim societies throughout its history (Fitriani & Taufiq, 2023; Kasdi et al., 2022). Among the roles played by this institution in the early days were providing basic needs, social goods such as education e.g. building libraries, funding scientific research and animal and environmental care as well as healthcare and public infrastructure such as roads, bridges, dams, parks, drinking water, loans to small entrepreneurs and

other development infrastructure (Fitriani & Taufiq, 2023).

Productive waqf development can be developed in various ways, one of which is a crowdfunding platform collaborating between financial institutions and waqf managers which will have implications for accelerating the sharing economy in Indonesia. Especially during the pandemic season like today, of course many of the lower middle class people need a helping hand from donors as waqf donors, so this situation can encourage the acceleration of the sharing economy implemented in the form of digital-based productive waqf instruments (Faizah & Rahmah, 2022).

The conclusion that can be drawn from the explanation that has been delivered by the researcher, among others, is that there are 3 crucial problems in the development of digital waqf: First, in terms of finance, the steps taken are to minimise the costs incurred by the waqf partners. Although it is widely said that the digital era makes it easier, it costs a lot of money to digitalise and also to maintain the platform, so the institution has not thought of adding or recruiting employees in the IT field (Faizah & Rahmah, 2022).

HR or existing nazirs focus on performance in accordance with their respective duties, principal and function (Faujiah et al., 2024; Nasrullah et al., 2023). Secondly, in terms of education, waqf partner institutions are still developing in educating the public to do waqf, and the importance of waqf in the welfare of the community around the waqf partner institutions or in a wider range. If studied more deeply, in addition to educating the community in optimising the potential of waqf. Waqf institutions can do marketing in the process of moving towards the digitalisation era (Faizah & Rahmah, 2022).

Third, in terms of concept. The waqf partner institution wants to build the concept of waqf according to Sharia. Although the development of waqf has led to the digital era, it is hoped that the institution itself can realise it based on the concept of the law on waqf and also related to the sharia of waqf (Faizah & Rahmah, 2022).

Conclusion

The study found that the development and transformation of digital cash waqf began in 2012 when the Indonesian Ulema Council issued a fatwa on cash waqf. The study also found that cash waqf began to grow in the community and was amplified by the presence of digital instruments in the implementation of cash waqf payments. Many waqf institutions build digital platforms through various applications, websites and other social media.

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Author Contributions

In this study, all researchers contributed actively with the tasks that were carried out together. In other words, this research was supported by equal distribution of roles and contributions of all authors, because each stage was always discussed together.

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Conflicts of Interest

In this research, there is no tug of interest and or hidden interests among the researchers. In addition, this research is also not an order from any funder because it is an independent research, or in other words, the research team itself plays a role in preparing proposals, selecting topics, conceptualizing problems, collecting data, analyzing problems, drawing conclusions until the publication stage in this journal.

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