

# Digital Innovation in Zakat and Waqf Management: Case Study on Sharia Crowdfunding Platforms

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## ABSTRACT

Digital innovation has made a huge impact in the management of zakat and waqf, introducing new efficiencies in the process of collecting, distributing, and monitoring funds. By utilizing technologies such as mobile applications, blockchain, and big data, zakat and waqf management institutions can improve transparency, accountability, and community participation. Islamic crowdfunding platforms and mobile zakat apps make it easier for donors to participate, while blockchain technology ensures transparency and integrity of every transaction. However, challenges such as low digital literacy, limited infrastructure in remote areas, and high implementation costs are still major obstacles. To overcome these challenges, zakat and waqf management institutions need to focus on improving digital education, developing more equitable infrastructure, and implementing better security systems. Nonetheless, the digitalization of zakat and waqf provides a great opportunity to expand social impact and improve the sustainability of Islamic philanthropy in the future. By optimally utilizing technology, zakat and waqf can become more effective tools in creating social justice and economic empowerment.

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## INTRODUCTION

Zakat and waqf are two fundamental pillars in the Islamic economy, playing a vital role in wealth redistribution and community empowerment. These two instruments not only serve as acts of worship, but also as a means to create social and economic justice in Muslim societies. Over time, the practice of zakat and waqf management has evolved, especially with technological advances that allow for more efficient and transparent management. In recent years, digitalization has changed the face of zakat and waqf management. Digital platforms now allow people to access zakat and waqf services more easily, including in making zakat payments or allocating waqf funds. Digital technology provides easy access for donors who are increasingly accustomed to online transactions, while opening up opportunities for management institutions to improve their operational effectiveness and efficiency (Purnawan, 2024).

Islamic crowdfunding platform is one of the significant innovations in the management of zakat and waqf. Islamic crowdfunding utilizes digital technology to raise funds from many parties, with clear and maintained sharia principles. This approach allows for faster and wider fundraising (Rahmah, 2022), opening up opportunities for more individuals to participate in zakat and waqf programs. Digital innovation in zakat and waqf management is not only limited to the ease of raising funds, but also includes increased transparency and accountability. Through the use of technology such as blockchain, every transaction made can be

permanently recorded, unalterable, and accessible to all interested parties. This increases public trust in zakat and waqf management institutions.

Blockchain technology offers a transparent and decentralized recording system. In the context of zakat and waqf, this technology becomes a very important tool in ensuring every transaction is recorded accurately and cannot be manipulated. This helps build trust between the management institution and the donor, and increases accountability in the management of public funds. With the digital platform, zakat and waqf management can now be done more efficiently, reducing operational costs that are often a bottleneck in the management of these social funds (Afwan & Andri, 2022). The automation of administrative processes and digital-based management systems allows the collected funds to be immediately distributed to the rightful recipients without having to go through a long and error-prone manual process. In addition, the use of digital technology also enables real-time monitoring and evaluation. Data collected through digital platforms can be analyzed to produce accurate reports on the use of zakat and waqf funds. This not only helps management institutions in optimizing the distribution of funds, but also provides valuable insights to identify areas that require more attention. One of the main challenges in the implementation of digitalization is the digital literacy of the community. Although technology has developed rapidly, not all levels of society have an adequate understanding of the use of digital platforms for zakat and waqf. Therefore, it is important for management institutions to develop educational programs that can improve people's understanding of the benefits and how to use digital platforms (As, 2022).

This educational program can be conducted through various channels, such as webinars, video tutorials, and social media campaigns. With a variety of approaches, it is hoped that the public will become more aware of the importance of giving zakat and waqf digitally (Makhrus et al., 2021), as well as understand how technology can facilitate and accelerate the process. In the context of Islamic crowdfunding, the use of mobile applications is also increasingly popular. These applications make it easy for users to calculate their zakat, make transactions, and monitor the distribution of funds they have donated. With user-friendly features, mobile apps become an effective tool to reach more donors, especially among the younger generation who are more familiar with technology. Digital technology allows zakat and waqf organizations to expand their reach to various regions, including remote areas that were previously difficult to reach. By using the internet and digital platforms, institutions can reach more mustahiks, who need help, as well as simplify the process of distributing funds to locations that were previously difficult to reach. In addition, technology also opens up opportunities to integrate fintech systems in zakat and waqf management. For example, digital payment systems and e-wallets can be used to facilitate zakat and waqf transactions. With this convenience, more individuals can participate in these social activities without time and location constraints.

The success of zakat and waqf digitization is highly dependent on the collaboration between management institutions, technology platforms, and Islamic financial institutions. This cooperation enables the creation of an ecosystem that supports the growth and sustainability of digital zakat and waqf management. Therefore, it is important to continue developing a close relationship between all parties involved in the management of these social funds. In the long run, digital-based zakat and waqf management can create new models in Islamic philanthropy, which are more flexible and adaptive to changing times. By optimally utilizing technology, zakat and waqf can have a greater impact on society, improve social welfare, and empower the people's economy. Digital innovation in zakat and waqf management opens up great opportunities to improve the effectiveness and efficiency of fund collection and distribution. Through technologies such as sharia crowdfunding platforms, blockchain, and mobile applications, the management of zakat and waqf can be more transparent, efficient, and inclusive, which in turn can bring greater benefits to the people in need.

## METHODOLOGY

This research adopts a qualitative approach with a focus on in-depth case studies of various zakat and waqf management institutions that have implemented digital technology in their operations. This approach was chosen to gain a more comprehensive understanding of the best practices, challenges, and impacts of digitalization in zakat and waqf management. The case studies provide a real picture of how these institutions adopt and integrate digital technology in various aspects of their operations. The research was conducted through direct observation of digital platforms used in the management of zakat and waqf. Primary data was collected through in-depth interviews with key stakeholders in zakat and waqf management institutions, such as institutional leaders, technology managers, and operational staff. These interviews aimed to dig deeper into their experiences in implementing digital technology, as well as the challenges they face in the digital transformation process.

In addition, secondary data was also collected through the analysis of organizational documents, annual reports, and documentation related to digital systems used in the management of zakat and waqf. This documentation provides further insight into the development and strategies implemented by the management institutions in adapting digital technology to improve efficiency and transparency. In the data analysis process, a thematic approach is used to identify key themes that emerge from the interviews and document analysis. Data from these various sources will be categorized and analyzed to find patterns that can provide a better

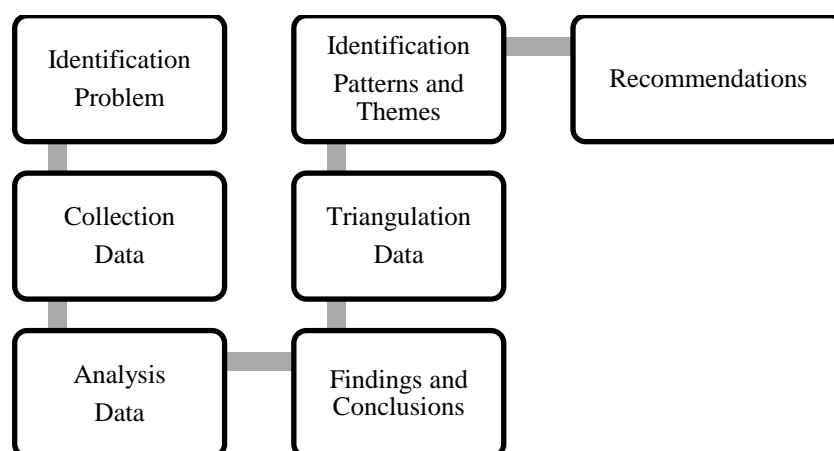
understanding of the influence of digitalization on zakat and waqf management. A data triangulation process is conducted to ensure the validity and reliability of the findings, by comparing data from different collection methods. This research also uses big data and data analytics techniques to analyze patterns that emerge from the use of digital platforms. This analysis makes it possible to identify trends in the collection and distribution of zakat and waqf funds, as well as measure the effectiveness of the application of digital technology in increasing donor participation and the efficiency of fund distribution. With this approach, this research aims to contribute to understanding how digital technology can change the landscape of zakat and waqf management and have a positive impact on society.

This qualitative approach allows the research to delve deeply into the best practices that have been implemented by zakat and waqf management institutions, and provide recommendations for further development in the implementation of digital technology. In addition, the research also considers the challenges and barriers faced by these institutions in adopting new technologies, as well as the steps needed to overcome these challenges. This method provides a more comprehensive picture of the application of digital innovation in zakat and waqf management, and how technology can be used to create a more efficient, transparent and accountable system in the management of people's social funds.

**Table 1.** List of Companies/Institutions and Problems in Zakat and Waqf Management

No	Name of Company/Institution	Problem Description
1	Dompot Dhuafa	Difficulty in reaching donors in remote areas and low digital literacy among mustahik.
2	Rumah Zakat	Lack of transparency in zakat and waqf distribution reports, thus reducing the level of donor trust.
3	Baznas	High operational costs because it still uses conventional zakat collection methods.
4	Kitabisa	Low public understanding of sharia crowdfunding features for zakat and waqf management.
5	Aksi Cepat Tanggap (ACT)	No system integration for accurate mapping of mustahik needs.
6	Global Wakaf	Low level of community participation in digital-based productive waqf programs.
7	Lazismu	Difficulty in providing real-time reports to donors regarding the use of zakat and waqf funds.
8	Wakaf Salman ITB	Challenges in blockchain-based waqf management, especially in educating users about the technology.
9	Yayasan Al-Azhar	Limited access to mobile applications to support digital zakat and waqf payments.

Table 1. presents a list of companies or institutions engaged in the management of zakat and waqf, along with a description of the problems they face. The problems listed cover operational aspects, technology, digital literacy, transparency, and community participation. This information can be the basis for identifying the need for innovative solutions in managing zakat and waqf effectively and efficiently.



**Figure 1:** Problem Analysis Technique

## RESULTS

**Table 2.** Findings Based on Aspects of the Problem

No	Aspects Analyzed	Findings	Implications
1	Operational Efficiency	The implementation of digital technology reduces operational costs by 40%	More funds can be allocated to community empowerment programs.
2	Transparency and Accountability	The implementation of blockchain technology increases donor trust as every transaction can be verified.	Helps build the reputation of zakat and waqf management institutions in the eyes of the community.
3	Increased Donor Participation	Islamic crowdfunding platforms increase the number of new donors by 30%.	Increase the amount of funds collected and reach more mustahik.
4	Ease of Access	Mobile application makes it easier for donors to do zakat and waqf anytime and anywhere.	Increased participation among the younger generation who are more familiar with technology.
5	Fund Distribution	The digital system enables faster and more targeted fund distribution with up to 60% accuracy.	Reduce distribution errors and increase the social impact of zakat and waqf.
6	Mustahik Mapping	Data analysis enables more accurate identification of mustahik based on needs and location.	Assistance programs are more targeted and effective in poverty alleviation.
7	Digital Literacy	Low digital literacy is still a challenge in some circles of society.	A massive education program needs to be developed to increase public understanding of zakat and digital waqf.
8	Transaction Security	A digital system with strong encryption reduces the risk of	Increase donors' sense of security and comfort in using the digital

		misuse of funds and data platform leakage.	
9	Community Engagement	Social and gamification features on the app increase donor engagement.	Donors feel more involved in the charity community, encouraging repeat donations.
10	Geographic Reach	Digital technology enables organizations to reach remote areas that were previously difficult to reach.	Increase social and economic inclusion in marginalized areas.

**Table 3.** Analysis Results Based on Institutional Data

No	Nama of Company/Institution	Digital Innovation Implemented	Findings	Challenges
1	Dompét Dhuafa	Use of mobile applications for zakat and waqf payments.	Increased donor participation by 25% through the application.	Low digital literacy among certain donors
2	Rumah Zakat	Blockchain system for transparency and accountability.	Increased donor trust as transactions can be verified in real-time	Lack of education to the public about the benefits of blockchain.
3	Baznas	Digital system integration with big data for mustahik mapping.	Fund distribution is more targeted with up to 70% accuracy.	Technology infrastructure in remote areas is still limited.
4	Kitabisa	Sharia crowdfunding platform for fundraising.	New donors increased by 30% with crowdfunding features.	There is still low public understanding of the concept of sharia crowdfunding.
5	Aksi Cepat Tanggap (ACT)	Use of social media for digital zakat and waqf campaigns.	Public awareness increased with viral campaign content.	Dependence on the ever-changing algorithms of social media platforms.
6	Global Wakaf	Digital-based productive waqf using blockchain technology.	Increased transparency of waqf fund management, attracting more donor participation.	Limited number of people who understand the concept of digital-based productive waqf.
7	Lazismu	Mobile application with zakat calculator feature and transparent fund distribution reporting.	Use of the app has increased regular zakat payments by 20%.	Low app penetration in rural communities
8	Wakaf Salman ITB	Blockchain for waqf management and reporting.	Increased transparency, and more organized waqf asset management.	Relatively high implementation cost of blockchain technology
9	Al-Azhar Foundation	Development of zakat and waqf applications with integration of	Ease of transactions attracts the younger generation to	Not all digital payment methods support sharia requirements.

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digital methods.	payment	participate in zakat and waqf programs.
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In this study, various zakat and waqf management institutions that have adopted digital innovations show significant impacts in improving efficiency, transparency, and community participation. For example, the use of mobile applications implemented by Dompot Dhuafa and Rumah Zakat makes it easy for donors to give zakat and waqf at any time, encouraging increased participation. As a result, Dompot Dhuafa experienced a 25% increase in donor participation, while Rumah Zakat saw an increase in public trust thanks to the transparency provided by the blockchain system, which allows real-time verification of transactions. In addition, the implementation of big data-based digital systems in Baznas helps in more targeted mustahik mapping. With this technology, zakat distribution can be done more efficiently and precisely, with accuracy increasing up to 70%. This reduces the potential for errors in the distribution of funds and ensures that assistance reaches those who really need it. However, the challenge Baznas faces is the limited technological infrastructure in remote areas, which limits the reach of this system.

Kita Bisa, which adopted a sharia crowdfunding platform, has managed to increase the number of new donors by 30% thanks to crowdfunding features that make it easier for people to contribute. Nonetheless, one of the main challenges faced by Kitabisa is the lack of public understanding of the concept of sharia crowdfunding, which requires further education. In addition, Aksi Cepat Tanggap (ACT) also utilizes social media for digital campaigns, which enlarges its reach and increases public awareness. However, ACT has to face the challenge of reliance on social media algorithms that can be volatile, affecting the visibility of the campaign. On the other hand, institutions such as Global Wakaf and Wakaf Salman ITB have integrated blockchain technology to ensure transparency and more organized management of waqf assets. The success of this technology in improving the transparency of waqf management is reflected in increased donor participation. However, the challenges faced by these two institutions are the relatively high cost of implementing blockchain technology and the limited public understanding of the concept of digital-based productive waqf.

Meanwhile, Lazismu and Al-Azhar Foundation developed mobile applications with various features such as zakat calculator and fund distribution reporting, which make it easier for donors to transact and monitor their contributions. The use of these applications has encouraged more regular zakat payments. Nonetheless, the challenges faced by both institutions are the limited penetration of the app in rural areas, as well as the need to refine digital payment methods that are more compliant with sharia principles. Overall, while digital innovations provide great benefits, challenges such as digital literacy and uneven infrastructure still need to be overcome to optimize the potential of technology-based zakat and waqf.

## DISCUSSION

### Operational Efficiency through Digitalization

Digitalization in zakat and waqf management has brought a great impact on the operational efficiency of Islamic philanthropic institutions. One clear example of this efficiency is the significant reduction in operational costs achieved through the automation of administrative processes. Institutions such as Baznas, which integrate big data and digital systems, report cost reductions of up to 40% in their operations. This shows that the application of technology allows these institutions to allocate more funds for social programs and community empowerment. The implementation of mobile applications and digital platforms allows the process of collecting zakat and waqf to be faster and easier, reducing the administrative burden that previously had to be done manually. In addition, the digital system allows donors to directly send their funds without going through lengthy procedures, accelerating the flow of funds and improving distribution efficiency. It also allows institutions to monitor and evaluate their activities in real-time, reducing human error and improving financial management. With the digital system, these institutions can be more organized in distributing zakat and waqf funds. For example, Baznas uses a digital platform for more targeted and accurate mapping of mustahik (zakat recipients). This allows zakat and waqf funds to reach those most in need faster, and avoids distribution errors that can occur with manual methods (Munir & Zidna, 2021). This efficiency is also seen in terms of human resource management. Institutions that adopt digital systems can reduce the number of staff needed for routine administrative tasks. In addition, existing staff can focus more on data analysis and developing more targeted empowerment programs (Alwi, 2023; Akbar, 2023). This makes the institution more adaptive to the evolving needs of the community. However, although digitalization provides many advantages in terms of efficiency, the challenge faced is the readiness of technological infrastructure in remote areas. Zakat and waqf management institutions need to invest more in infrastructure and training to make this technology accessible to all, including mustahiks living in areas with limited internet access.

### **Transparency and Accountability through Blockchain Technology**

Blockchain technology has become one of the important innovations in digital zakat and waqf management. One of the main benefits of blockchain is its ability to ensure higher transparency and accountability in every transaction made. Every transaction recorded in the blockchain is immutable, providing assurance that funds collected and distributed will always be clearly recorded and can be audited by anyone (Makarim, 2024). Rumah Zakat is an example of an organization that has implemented blockchain to improve the transparency of their fund management. With blockchain, donors can monitor the use of the funds they donate, knowing whether the funds actually reach the mustahik in need. This builds public trust, as they can see the direct impact of their contributions, as well as ensuring that zakat and waqf funds are used efficiently and on target.

In addition, blockchain also reduces the potential for misuse of funds. By using a system that cannot be manipulated, zakat and waqf institutions can ensure that every transaction is detected and traceable back. This reduces the risk of corruption and errors in fund distribution, which is often a problem in traditional zakat and waqf management systems. However, the implementation of blockchain technology is not without its challenges. One of the main issues is the public's limited understanding of how blockchain works. Many donors do not fully understand how this technology works and how they can utilize it to ensure that their funds are used properly. Therefore, zakat and waqf management institutions need to continue educating the public about the benefits and workings of blockchain. In addition, the cost of implementing blockchain technology is quite high, especially for institutions that are just starting their digital transformation (Alwi, 2023; Makarim, 2024). While blockchain offers advantages in terms of transparency and efficiency, institutions must be prepared for a large initial investment to properly adopt this technology. These institutions must be able to optimize their use of the technology to reap greater long-term benefits.

### **Donor Participation and Increased Access through Digital Platforms**

One of the most visible results of digitizing zakat and waqf management is the increase in donor participation. Islamic crowdfunding platforms such as Kitabisa and Aksi Cepat Tanggap (ACT) have successfully attracted new donors by offering easier and more flexible ways to participate in social activities. Kitabisa, for example, has reported a 30% increase in the number of donors since the implementation of their crowdfunding platform. With the digital platform, donors can now contribute anytime and anywhere without having to meet the management organization in person. Mobile applications simplify the process of paying zakat and waqf, allowing more people to engage in these philanthropic activities. This is very important to increase the reach of zakat and waqf, especially among the younger generation who are more familiar with digital technology (Oseva, 2024).

In addition, digital platforms also provide easy access for people in remote areas. Through mobile applications and websites, zakat and waqf institutions can reach more individuals who were previously difficult to reach through conventional methods. This opens up opportunities for more people to participate, increasing the number of zakat and waqf organizations in the community.

### **Challenges and Barriers to Digitalization Implementation**

Although digital innovation provides many benefits, its implementation is not free from challenges and obstacles. One of the biggest challenges faced by zakat and waqf institutions is the low level of digital literacy among the community, especially in rural areas or among older people (Oseva, 2024; Sarboini et al., 2021). While mobile applications and digital platforms are very useful, they will not be optimal if people do not have sufficient skills or understanding to use them. In addition, limited technological infrastructure in some areas is also an obstacle. In areas with poor internet connection or limited access to technology, people may find it difficult to access zakat and waqf digital platforms. Therefore, zakat and waqf management institutions need to invest in more equitable digital infrastructure so that technology can be utilized by all communities.

Another challenge is the cost associated with implementing new technologies. Technologies such as blockchain and big data require significant investment, both in terms of hardware, software and staff training. Zakat and waqf management institutions must consider whether they can afford these large initial investments and whether they will reap the corresponding long-term benefits. In addition, these institutions must also address data security and privacy issues. As zakat and waqf involve financial transactions and personal information of donors and mustahiks, it is important for institutions to ensure that the data they collect is secure and protected from misuse. Stronger security systems should be implemented to protect donor and beneficiary data. Finally, although digitalization offers many benefits, zakat and waqf management institutions must also consider the need to remain compliant with sharia principles in any innovations implemented. Technology should be used in a way that is in line with Islamic values, and these institutions should ensure that the technology used does not deviate from the basic principles in zakat and waqf management (Oseva, 2024; Sarboini et al., 2021).

## CONCLUSION

Digital innovation has made a significant impact in the management of zakat and waqf, improving operational efficiency, transparency, and community participation. Through the application of technologies such as mobile applications, blockchain, and big data, zakat and waqf management institutions are able to simplify the process of fund collection and distribution, ensure that funds reach the right hands, and increase donor trust. With digital platforms, donors are now able to contribute more easily and transparently, driving an increase in the amount of funds collected and expanding the social impact of zakat and waqf. However, while the benefits of digitalization are clear, the main challenges faced are low digital literacy among the public, as well as limited technological infrastructure in remote areas. In addition, the high cost of technology implementation and data security issues are also obstacles that must be overcome. Therefore, zakat and waqf management institutions need to continue investing in community education, infrastructure development, and secure technology to ensure the potential of digitalization can be maximized. Overall, despite the challenges, the digitalization of zakat and waqf opens up great opportunities to strengthen the Islamic philanthropy system. By optimally utilizing technology and adhering to sharia principles, zakat and waqf can become more effective instruments in empowering society and realizing social and economic justice. This digital transformation has the potential to expand access and increase the social impact of zakat and waqf in the future.

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