

## **Zakat 4.0 : Utilization Of Technology To Increase Transparency And Accountability Of Zakat Management**

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### *ABSTRACT*

*The purpose of this study is to examine how information technology use affects zakat management's effectiveness and transparency. One of the key tenets of Islam is zakat, which is used to redistribute wealth and aid the poor. However, issues with efficiency and openness frequently arise in zakat management. Information technology can help improve both of these features in this situation by implementing a digital zakat management system. This study's methodology is a case study that employs a qualitative approach with journal analysis. To determine the changes that followed the introduction of information technology, the gathered data was examined. The findings of the study demonstrate that operational efficiency is greatly increased by the use of information technology, including online platforms and mobile applications. This is demonstrated by the decrease in expenses and time needed for zakat collection and distribution. Furthermore, the use of information technology also helps to promote greater transparency. The public has easier access to information about how zakat monies are managed and used, which makes zakat organizations more accountable. Better information availability increases community faith in these institutions' ability to manage zakat. The study's conclusion highlights that incorporating information technology into zakat administration enhances public trust in addition to the institutions' internal operations. In order to optimize the potential for greater efficiency and transparency in zakat management, this study advises zakat organizations to fortify their information technology infrastructure.*

**Keywords:** *Information Technology, Efficiency, Transparency, Zakat Management, Zakat Management System, Digitalization*

### **INTRODUCTION**

Effective, efficient, and transparent zakat management is one of the important aspects in supporting the achievement of Islamic social and economic goals. In recent years, the application of information technology (IT) has become one of the main focuses in the transformation of zakat management systems in various countries. Information

technology not only provides solutions to overcome traditional challenges, such as limited access, slow bureaucracy, and lack of accountability, but also opens up new opportunities to increase public trust in zakat institutions.

Previous research shows that the use of technology, such as integrated information systems, e-government, and blockchain, is able to have a positive impact in improving the efficiency and

transparency of zakat management. For example, (Beik et al., 2021) revealed that technology integration can improve the management of zakat data while increasing the transparency of zakat institutions. In addition, (Ikhlās Rosele et al., 2022) study highlighted the digital transformation in zakat collection and distribution in Malaysia, which resulted in significant operational efficiency. Blockchain technology, as reviewed by Hassan and Tan (2022), offers great potential in creating a transparent and abuse-free zakat management system.

Not only at the global level, the application of technology in zakat management has also been applied in Indonesia. (Rahman et al., 2023) explain how zakat institutions in Indonesia utilize digital technology to optimize zakat collection and distribution, which ultimately increases accountability to muzakki. Other studies, such as the one conducted by (Rahman et al., 2023) highlight the important role of information technology in improving the effectiveness of zakat management by Islamic financial institutions.

Against this background, this study aims to analyze the effect of information technology implementation on the efficiency and transparency of zakat management. The main focus of this study is to identify the contribution of information technology in improving service quality, accountability, and public trust towards zakat management institutions. In addition, this study also aims to provide practical recommendations for zakat institutions in utilizing technology optimally.

The application of information technology (IT) has become an important aspect in zakat management, especially in improving operational efficiency and transparency. Various studies show that the

use of technology is able to optimize the collection, distribution, and accountability of zakat.

### ***Increasing Efficiency through Information Technology***

(Beik et al., 2021) highlighted that an integrated information system is able to accelerate the process of zakat collection and distribution, and minimize human error. Another study by (Rahman et al., 2023) shows that the implementation of IT in Islamic financial institutions has a significant impact on operational efficiency, especially in the process of managing muzakki and mustahik data. Meanwhile, Ismail and Mohd Noor's (2019) research in Malaysia shows that digital transformation facilitates faster and more targeted zakat distribution.

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

Transparency is one of the main issues in zakat management. Technology such as blockchain has been shown to improve accountability, as outlined (Mokodenseho et al., 2023) Blockchain allows for the immutable recording of transactions, thus increasing public trust. Said and (Beik et al., 2021) also noted that the application of technology has a significant impact on accountability, by enabling better reporting to stakeholders.

### ***The Role of Electronic Systems and Digitalization in Zakat Institutions***

(Alshehadeh et al., 2024) study underlines the role of e-government system in zakat management. This system not only improves efficiency, but also ensures transparency through real-time data reporting. Another study by (Ikhlās Rosele et al., 2022) how zakat institutions

in Indonesia utilize digital technology to manage zakat funds more transparently and effectively, taking into account the local context.

### ***Technology Integration in Zakat Fund Management***

(Batubara et al., n.d.) highlights the importance of information technology in improving the effectiveness of zakat fund management. Naseem and Ahmad (2022) underline that a good information system allows for a more efficient distribution of zakat, while providing better transparency channels to the public.

From the various studies above, it appears that the application of information technology plays a central role in improving the efficiency, transparency, and accountability of zakat management. Technology integration such as blockchain, e-government, and integrated information system are the main keys to bring innovation in zakat management in the digital era.

## **METHODOLOGY**

To examine the effect of information technology implementation on the efficiency and transparency of zakat management, this research uses a qualitative descriptive approach by referring to various relevant previous studies. This research aims to understand the relationship between the application of technology and the improvement of zakat management through secondary data analysis obtained from published journal articles.

### ***Research Approach***

This research applies a qualitative approach because the main focus is to understand social and technological

phenomena in the context of zakat management. This approach provides in-depth insight into the role of information technology in improving efficiency and transparency.

### ***Data Source***

The data used in this research comes from:

- (Ekonomi dan Perbankan Syariah et al., 2013): Examines the application of integrated information systems to improve transparency and efficiency.
- (Willya et al., 2023) Case study in Malaysian zakat institution related to digital transformation in zakat collection and distribution.
- (Rahman et al., 2023) study: Focuses on the use of information technology in Islamic financial institutions for the efficiency of zakat management.
- (Rizqon et al., n.d.) Explores the application of blockchain technology in ensuring transparency in zakat management.
- Other articles (Alshehadeh et al., 2024), (Shilamaya & Sisdianto, 2024), (Ikhlas Rosele et al., 2022), (Anis, n.d.), (Batubara et al., n.d.), Additional studies from other relevant journals to strengthen the analysis.

### ***Data Collection Technique***

Data is obtained through literature analysis, where relevant information on the application of technology in zakat management is collected, compared, and synthesized. The articles were selected based on the credibility of the scientific journal, relevance to the topic, and continuity of the data with the research focus.

### ***Data Analysis Techniques***

- **Content Analysis:** Involved identifying the main themes of each journal, such as the role of technology in efficiency, transparency, and accountability.
- **Thematic Synthesis:** Data from different studies are integrated to find relevant patterns, such as how certain technologies (blockchain, e-government, information systems) affect zakat management.
- **Case Study Comparison:** Case studies from several countries (Malaysia and Indonesia) are compared to assess technology implementation in different contexts.

### ***Data Validity***

To ensure validity, this study uses data triangulation by combining various sources of information. In addition, this study also refers to journal articles that have been indexed in trusted scientific databases such as Scopus and Web of Science.

The results of this research method are expected to provide a comprehensive overview of the role of information technology in improving the efficiency and transparency of zakat management and provide recommendations for optimizing the use of technology in the future.

## **RESULT AND DISCUSSION**

Efficient and transparent zakat management is an urgent need in the modern context, where people demand higher accountability from zakat institutions. Several studies relevant to this topic provide significant results on the role of information technology in improving

operational efficiency, transparency, and public trust.

### ***Operational Efficiency***

Amin and Zainol (2020) showed that the implementation of an integrated information system is able to simplify the process of zakat collection and distribution. The system automates administrative processes, reduces data processing time, and minimizes human error. Research by Abdul Rahman and Yusoff (2021) also supports this finding by stating that the use of information technology increases the productivity of zakat institution staff, allowing for more optimal resource allocation.

Ismail and Mohd Noor (2019) in a case study in Malaysia identified that digital transformation enables faster zakat collection process through online payment platforms and mobile applications. This efficiency not only reduces operational costs but also expands service coverage to more muzakki.

### ***Transparency and Accountability***

(Amilahaq, n.d.; Mokodenseho et al., 2023) highlighted the use of blockchain technology to improve the transparency of zakat management. Blockchain allows for the immutable recording of transactions, which provides assurance to muzakki that their funds are being managed safely and for the intended purpose. (Beik et al., 2021) found that the implementation of e-government systems in zakat management in some countries provides a significant improvement in reporting transparency.

(Rizqon et al., n.d.) revealed that the implementation of a good information system facilitates real-time tracking of fund distribution. This allows zakat institutions to provide more accurate

reports and build public trust.

**Impact on Public Trust**

(Rahman et al., 2023) noted that technology plays an important role in strengthening the accountability of zakat institutions. With technology, the public can verify the use of zakat funds, thus increasing public trust and participation.

**Case Study in Indonesia**

(Mokodenseho et al., 2023) research provides insight into the application of digital technology in zakat institutions in Indonesia. The results show that the use of digital applications for zakat collection has a positive impact on operational efficiency. However, challenges such as digital divide and technology literacy among muzakki and mustahik remain a major obstacle.

The application of information technology in zakat management contributes significantly to efficiency and transparency. Technologies such as blockchain and integrated information systems not only improve operational speed and accuracy, but also strengthen public trust through better transparency. However, technology implementation requires adequate infrastructure, human resources, and policy support.

In addition, there are variations in the effectiveness of technology adoption across countries. In countries such as Malaysia, with a higher level of technology adoption, the results are more visible than in countries with a large digital divide, such as Indonesia. Therefore, a contextualized approach is needed in adopting technology for zakat management.

Overall, technology integration in zakat management shows great potential to overcome operational challenges and build a more transparent and accountable

system. The recommendation from various studies is the need for collaboration between the government, zakat institutions, and technology developers to ensure the sustainability of this innovation.

Table. 1. Variables and expected goals

Variable	Measurement Method	Data Source	Expected Outcome
Operational Efficiency	Time and cost of zakat management process	Interviews with zakat institution managers, surveys	Reduction in time and cost of zakat collection and distribution
Transparency	Access to public information and reporting	Analysis of documents and reports from zakat institutions	Improvement of access to information on the use of zakat funds
Public Trust	Zakat Donor Satisfaction Survey	Questionnaire for Zakat Donors	Increase in Public Trust in Zakat Institutions
Use of Information Technology	Frequency of use of online applications and platforms	Data on the use of digital systems	Increase in the frequency of zakat application use by muzaki
Accountability	Quality of reports and audits	External audits and user feedback	Improvement in the quality and accuracy of zakat management reports
Participation of Muzaki	Amount of contributions and involvement of muzaki	Zakat transaction data	Increased amount of zakat contributions and involvement of muzaki

Explanation of the Data Assessment Table

1. Operational Efficiency

- Measurement Method: The time and cost of the zakat management process are measured through interviews with zakat institution

- managers and surveys.
  - Data Source: Data is collected from zakat institution managers involved in the collection and distribution processes.
  - Expected Outcome: A significant reduction in the time and cost required is expected, indicating that information technology has improved the operational efficiency of zakat institutions. This allows the institution to allocate more resources to programs that benefit the community.
2. Transparency
    - Measurement Method: Transparency is measured through public information access and reporting quality.
    - Data Source: Analysis is conducted on documents and reports published by zakat institutions.
    - Expected Outcome: An increase in public access to information regarding the use of zakat funds is expected. This is important for building public trust in zakat institutions.
  3. Trust
    - Measurement Method: The level of public trust is measured using a muzaki satisfaction survey
    - Data Source: Questionnaires are distributed to muzaki to collect data about their experiences with the zakat institution.
    - Expected Outcome: This research expects an increase in the level of public trust in the zakat institution, which can be indicated by positive survey results.
  4. Use of Information Technology
    - Measurement Method: The frequency of using applications and online platforms for zakat is measured quantitatively.
    - Data Source: Data on the use of digital systems is taken from reports on the use of zakat applications by muzaki.
    - Expected Outcome: An increase in the frequency of zakat application usage is expected, indicating that muzaki are becoming more accustomed to and trusting of the digital system for zakat.
5. Accountability
    - Measurement Method: The quality of reports and audits of zakat institutions is measured through external audit evaluations and user feedback.
    - Data Source: Data is collected from audits conducted by third parties and responses from muzaki regarding the reports received.
    - Expected Outcome : An improvement in the quality and accuracy of financial reports is expected, indicating that information technology has contributed to enhancing the accountability of zakat institutions.
  6. Participation of Donors
    - Measurement Method: The number of contributions and involvement of donors is measured through the analysis of zakat transaction data.
    - Data Source: Zakat transaction data is collected from the financial reports of zakat institutions.
    - Expected Outcome: An increase in the number of zakat contributions and donor involvement in programs offered by zakat institutions is expected, indicating that information technology has facilitated the zakat process.

## CONCLUSION

The studies that have been reviewed show that the application of information technology (IT) has a significant positive impact on zakat management, especially in improving the efficiency, transparency, and accountability of zakat institutions. The following are the main points of the conclusion:

1. Technology's Role in Operational Efficiency  
Information technology, including

integrated information systems and digital platforms, is able to automate administrative processes, accelerate fund collection, and improve the efficiency of zakat distribution. Research by Amin and Zainol (2020) and Ismail and Mohd Noor (2019) emphasize the importance of digital transformation in reducing operational costs and optimizing resources of zakat institutions.

2. **Transparency and Accountability**  
Transparency of zakat management increases with the digital system that allows real-time tracking and reporting of funds. Research by Hassan and Tan (2022) shows that blockchain technology becomes an effective tool in ensuring transaction data cannot be altered, thus improving the accountability of zakat institutions.
3. **Impact on Public Trust**  
Increased transparency through technology, as expressed by (Rizqon et al., n.d.) contributes to increased muzakki (donor) trust. This leads to increased public participation in zakat payment, thus expanding the social impact of zakat.
4. **Regional Context and Implementation Challenges**  
Although technology has brought many benefits, implementation in developing countries such as Indonesia faces obstacles such as low digital literacy, limited infrastructure, and resistance to change (Dewi & Arfianti, 2021). This study emphasizes the importance of approaches tailored to local conditions to ensure successful technology adoption.
5. **Cross-Stakeholder Collaboration**  
States that successful technology implementation requires collaboration between the government, zakat institutions, and technology developers. Policy and regulatory support are key

elements to encourage sustainable digital transformation.

Information technology has proven its potential in improving the efficiency, transparency, and accountability of zakat management. However, successful implementation requires a strategic and inclusive approach, involving all stakeholders to address infrastructure challenges and digital divide. This transformation not only provides operational benefits for zakat institutions but also builds public trust and participation, thus strengthening the role of zakat in social and economic empowerment.

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