Optimizing Digital-Based Zakat Management: Analyzing the Effectiveness of Zakat Applications in Improving Transparency and Accountability

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ARTICLE INFO	ABSTRACT
	Abstract: The development of digital technology has opened up new opportunities in zakat management, making research on the effectiveness of digital-based zakat applications important to ensure that zakat management is increasingly transparent, accountable, and in accordance with sharia principles. This study aims to analyze the effectiveness of digital-based zakat applications in improving the transparency and accountability of zakat management through a Systematic Literature Review (SLR) approach. Literature sources were obtained from reputable databases, namely Scopus, DOAJ, and Google Scholar, covering publications from 2015 to 2025. A systematic review process was conducted to identify, evaluate, and synthesize relevant findings from previous studies. The results showed that digital zakat applications were effective in strengthening the transparency and accountability of zakat institutions, particularly through increased information disclosure, financial reporting accuracy, zakat distribution monitoring, and increased community participation. These findings confirm that the digitization of zakat plays a strategic role in building the trust of muzaki, strengthening the accountability of zakat management organizations, and encouraging the optimization of zakat governance in accordance with sharia principles. Thus, this study not only contributes conceptually to the development of academic literature on the digitization of zakat, but also offers practical recommendations for zakat institutions and regulators in designing more transparent, accountable, and sustainable digital-based zakat management strategies. **Abstrak**: Perkembangan teknologi digital telah membuka peluang baru dalam pengelolaan zakat, sehingga penelitian mengenai efektivitas aplikasi zakat berbasis digital penting dilakukan untuk memastikan tata kelola zakat semakin transparan, akuntabel, dan sesuai prinsip syariah. Penelitian ini bertujuan untuk menganalisis efektivitas aplikasi zakat berbasis digital dalam meningkatkan transparansi dan akuntabilitas pengelolaan zakat melalui pendekatan Systematic Literature Review (SLR). Sumber literatur diperoleh dari basis data bereputasi, yaitu Scopus, DOAJ, dan Google Scholar, dengan cakupan publikasi pada rentang tahun 2015–2025. Proses telaah sistematis dilakukan untuk mengidentifikasi, mengevaluasi, dan mensintesis temuan-temuan penelitian terdahulu yang relevan. Hasil penelitian menunjukkan bahwa aplikasi zakat digital terbukti efektif dalam memperkuat transparansi dan akuntabilitas lembaga zakat, terutama melalui peningkatan keterbukaan informasi, akurasi pelaporan keuangan, monitoring distribusi zakat, serta peningkatan partisipasi masyarakat. Temuan ini menegaskan bahwa digitalisasi zakat berperan strategis dalam membangun kepercayaan muzaki, memperkuat akuntabilitas organisasi pengelola zakat, dan mendorong optimalisasi tata kelola zakat sesuai prinsip syariah. Dengan demikian, penelitian ini tidak hanya memberikan kontribusi konseptual bagi pengembangan literatur akademik mengenai digitalisasi zakat, tetapi juga menawarkan rekomendasi praktis bagi lembaga zakat dan regulator dalam merancang strategi pengelolaan zakat berbasis digital yang lebih transparan, akuntabel, dan berkelanjutan.

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A. INTRODUCTION

Zakat is one of the fundamental instruments in the Islamic economic system that plays a strategic role in creating social balance, reducing poverty, and closing the gap between rich and poor groups (Ibrahim, 2015). In the context of a country with a Muslim majority, zakat has enormous potential as a source of socio-religious funds that can support sustainable development. However, despite its extraordinary potential, the realization of zakat collection is still far from optimal. Data showing a significant gap between the potential and actual collection of zakat indicates serious challenges in zakat management (Al Haq & Abd. Wahab, 2017). One of the main causes of low zakat collection is the lack of public trust in formal zakat institutions. The public often doubts the transparency of reporting and accountability in the distribution of zakat funds, so some muzaki choose to distribute zakat directly to mustahik (Nurhayati, 2024). This situation causes zakat institutions to lose a large portion of the potential that could otherwise be collected and distributed in a more structured, efficient, and targeted manner. Therefore, efforts to improve the professionalism, accountability, and transparency of zakat institutions are crucial in order to rebuild public trust.

The development of digital technology has had a significant impact on various sectors of life, including the zakat management system. Digital transformation has led to the creation of zakat applications designed to simplify the process of payment, recording, and distribution of zakat in a more efficient and integrated manner (Nor et al., 2024). With the advent of digital platforms, muzaki can now fulfill their zakat obligations via mobile devices in a fast, easy, and secure manner (Mia Andika & Lucky, 2024). Digital innovation not only improves the operational efficiency of zakat institutions, but also expands the reach of services to communities that previously had limited access, either due to geographical factors or time constraints (Sarif & Ariyanti, 2025). Furthermore, digitization also plays a role in overcoming administrative barriers that have been obstacles in manual systems, such as delays in recording or distribution errors. Therefore, digital transformation is believed to be a strategic solution that can support the optimization of zakat management in the modern era (Billah, 2021). Through the use of technology, zakat institutions can improve their collection performance while responding to the needs of a community that is increasingly accustomed to digital-based services.

The success of a zakat institution in maintaining its existence is largely determined by the level of transparency and accountability in managing community funds (Syaifuddin & Khalil, 2024). These two principles are the main foundations for building and maintaining public trust (Hartanto et al., 2021). However, a number of cases of zakat fund misuse that have occurred in several institutions have tarnished the image of zakat management, while weakening the legitimacy of these institutions in the eyes of the public. This situation calls for innovation in the zakat management system in order to restore public trust (Saad

& Abdul, 2023). The advent of digital applications offers a solution to this problem, as this system enables zakat institutions to provide financial reports that are transparent, real-time, and easily accessible to muzaki (zakat payers) and relevant authorities (Nor et al., 2024). In addition, digital applications also support the implementation of technology-based audits that are more accurate and automatically documented. Thus, digitization not only simplifies administrative processes, but also strengthens the integrity of zakat institutions through increased transparency and accountability in every stage of fund management.

Recent studies show a dominant focus on technology adoption and muzaki trust, followed by an evaluation of the effectiveness of applications on the collection and distribution process. In Indonesia, data-based findings show that digital channels have increased from 1% to 14% of total muzaki contributions a strong indication that the intention to pay zakat online is moving in line with perceptions of usefulness, convenience, and institutional trust (Kasri & Sosianti, 2023). On the institutional side, quantitative studies confirm that digital-based zakat management practices and transparent reporting encourage accountability and accelerate zakat growth (Hadi et al., 2024). Evidence of application development also shows strengthened governance: automated reporting modules, audit trails, and dashboards improve traceability and reduce information asymmetry between LAZ/BAZ and stakeholders (Salat et al., 2024). At the ecosystem level, the digital transformation of zakat organizations is associated with increased donor engagement; one multi-organizational study noted that 87% of members have used digital channels and 72% reported growth in online donations after going digital two metrics that reflect the efficiency of donor acquisition and retention (Akasah & Ishak, 2023). Normatively, the literature asserts that securing processes from fraud prevention to digital forensic compliance is a prerequisite for maintaining legitimacy, making compliance-by-design features in zakat applications a key element of accountability (Hamsin et al., 2024).

The direction of zakat digitization is in line with the global fintech and Islamic finance trends, with an emphasis on transaction traceability, data transparency, and donor engagement based on user experience. Conceptually and empirically, zakat is positioned as a social fiscal instrument that contributes to the achievement of SDGs, particularly poverty alleviation, health, education, and reduction of inequality, so that digitization that improves transparency and accountability becomes an important enabler of development impact (Dirie & Maamor, 2024). A systemic study of digital management and zakat reporting shows that a combination of automated reporting, data-based internal controls, and institutional accountability correlates positively with accelerated zakat growth, a mechanism that strengthens distribution outcomes (Abduldayan, 2021). Collaboration between zakat institutions and fintech requires close attention to data security, privacy, and transaction forensics Zulkifley & Aishath (2024); legal technical recommendations emphasize preventive control design and end-to-end

audit trails in applications. In terms of capabilities, the digital literacy of amil muzaki is a key factor in reducing fraud risk, improving compliance, and increasing the adoption of transparency features (Mushdalifah et al., 2024).

Studies on digital zakat are still partial and fragmented, so they don't give us a complete picture of how digital transformation really affects zakat management. Previous studies have focused more on aspects such as technology adoption, muzaki behavior Muflih (2023) and distribution effectiveness, while the direct relationship between the use of digital applications and increased transparency and accountability of zakat institutions has not been systematically studied. The absence of a comprehensive literature synthesis means that research results still stand alone without providing a clear conceptual map of best practices and existing weaknesses (Schick & Neander, 2016). In this context, a comprehensive study is needed to compile and organize the findings of previous studies to identify the supporting factors and obstacles in the implementation of digital zakat (Abdul-Rahman & Yaacob, 2023). Such an approach is not only useful for the development of academic literature, but also important for zakat institutions and regulators to have a strong basis for designing strategies to optimize technology-based zakat management.

Based on previous research findings, it appears that studies on digital zakat tend to be fragmented and focus more on aspects such as technology adoption, muzaki behavior, and distribution effectiveness, while the direct link between the use of zakat applications and increased transparency and accountability has not been systematically examined. Empirical findings do show a significant increase in the use of digital channels, management efficiency, and muzaki involvement, but there is no conceptual map that integrates this evidence to answer how digitization truly optimizes zakat governance. Therefore, this study aims to conduct a systematic literature review to synthesize existing findings, while assessing the effectiveness of zakat applications in strengthening the transparency and accountability of management institutions. The main objective of this research is to produce a comprehensive mapping of the supporting factors, challenges, and best practices in zakat digitization, so as to provide a conceptual contribution to academic literature as well as practical recommendations for zakat institutions and regulators in designing strategies for optimizing digital-based zakat management.

B. METHODS

This study adopts a qualitative approach with the main method being a Systematic Literature Review (SLR). This method was selected as it provides a structured and comprehensive framework to analyze a wide range of literature concerning the role of digital zakat applications in enhancing transparency and accountability. Through the SLR approach, this study aims to map the development of digital zakat management, examine the strategies applied in

various contexts, and identify both the opportunities and challenges faced in its implementation. To ensure the quality and relevance of the reviewed studies, the following inclusion criteria were determined: (1) articles that explicitly discuss digital zakat management or zakat applications in the context of Islamic philanthropy; (2) studies that focus on aspects of transparency, accountability, governance, or efficiency in zakat management; (3) research that covers both regional and global perspectives with contextual relevance to zakat practices in Indonesia; and (4) publications dated between 2015 and 2025. In contrast, exclusion criteria include: (1) articles that only examine the technical features of digital applications without linking them to transparency or accountability outcomes; (2) non-academic works such as editorials, news reports, or opinion papers; (3) research lacking methodological rigor or systematic presentation of findings; and (4) literature unrelated to zakat institutions or Islamic philanthropy.

The literature search was conducted across reputable academic databases such as Scopus, DOAJ, and Google Scholar, employing keywords such as "digital zakat," "zakat applications," "zakat management," "transparency in zakat," and "accountability in Islamic philanthropy." The selection process involved three stages: (1) initial screening based on titles and abstracts, (2) full-text review guided by the inclusion and exclusion criteria, and (3) data extraction focusing on application features, governance mechanisms, evaluation methods, and key findings concerning transparency and accountability. Data analysis was carried out using a descriptive qualitative approach with thematic coding to identify recurring themes, followed by cross-comparison among studies to uncover patterns, similarities, and divergences. A narrative synthesis was then conducted to integrate findings into a coherent analysis, offering a comprehensive understanding of the effectiveness of digital zakat applications in strengthening governance practices. The results of this process were utilized to formulate conclusions on the strategic role of digital technology in zakat management and to propose recommendations relevant for zakat institutions, policymakers, and scholars in the field of Islamic philanthropy.

Figure 1. Research Implementation Flow

C. RESULTS AND DISCUSSION

Research developments on the digitization of zakat management show a diversification of research focus covering aspects of transparency, accountability, distribution efficiency, user engagement, digital transformation challenges, and strategic opportunities. These studies emphasize that optimizing digital application-based zakat management is not only related to compliance with sharia accounting standards, but also to increasing public trust, operational efficiency, and integration with the latest financial technology. To provide a comprehensive overview of research trends, a summary of the relevant research results is presented in Table 1.

Table 1. Summary of Research Focus on the Digitization of Zakat Applications

No	Research Focus	Authors	Insights / Research Variables
1	Transparency and Information Disclosure	Astuti (2017); Rahman (2015); Sakka & Qulub (2019); Mesiono et al. (2024); Uriawan et al. (2024); Mokodenseho et al. (2023); Ali & Azzafa (2024); Judijanto & Irwan (2024)	Information disclosure mechanisms; PSAK 109 compliance; public access to zakat data; role of applications (Z-PRO, e-Zakat); accuracy of data management; blockchain for report accuracy; user satisfaction with transparency.
2	Accountability and Reporting Systems	Ansori & Violita (2025); Setiyani et al. (2022); Dewintari et al. (2024); Syaffa et al. (2025); Wulan et al. (2020); Megawati & Zulkifli (2025); Mosweu & Ngoepe (2020)	Accountability indicators; financial reporting (PSAK 109 compliance); asset reporting issues; real-time tracking (e-FAMS); internal/external audits (including Sharia audits); digital risk mitigation; audit facilitation through digital records.
3	Efficiency, Distribution, and Monitoring	Amellia Tamara et al. (2023); Susanto et al. (2025); Rohmaniyah (2021)	Continuous monitoring of zakat distribution; targeted allocation to mustahik; efficiency through crowdfunding, blockchain, mobile apps; enhanced community trust and participation.
4	User Engagement and Trust	Rahman (2015); Sakka & Qulub (2019); Rohmaniyah (2021); Judijanto & Irwan (2024)	Building muzaki trust through transparency; participation via public data access; feedback mechanisms in apps; positive user perception despite concerns.
5	Challenges in Digital Transformation	Rohim (2019); Soleh (2019); Santoso (2019); Shiddiqi & Halili (2024); Asni & Mustafa (2025); Osato Itohan et al. (2024)	Limited digital literacy (muzaki & mustahik); data security & privacy risks; regulatory compliance complexity; lack of clarity in blockchain regulation; potential reduction of public trust.

6	Strategic Opportunities	Muneeza & Nadwi (2019); Nugraha et al. (2019); Rafiki & Andika (2024)	Integration with fintech services; big data for targeted distribution and muzaki behavior analysis; artificial intelligence (AI) for automation, decision-making, and service improvement.

1. How Effective are Digital Zakat Applications in Improving the Transparency of Zakat Management?

Digital zakat applications significantly contribute to improving transparency in zakat management by providing information disclosure, reporting mechanisms, and public access to zakat data. For Zakat Management Organizations (OPZ), this application is an important instrument in building trust and accountability to muzaki. Through real-time data updates, muzaki can monitor the process of zakat collection and distribution, while the presentation of financial reports referring to PSAK 109 demonstrates compliance with applicable accounting standards (Astuti, 2017). In addition, this application makes it easier for OPZ to compile and submit financial reports to stakeholders, thereby strengthening institutional accountability (Rahman, 2015). Public access to zakat management data, including historical data and performance indicators, is also a factor that encourages increased participation by muzaki (Sakka & Qulub, 2019).

Digital zakat applications have proven to be capable of improving transparency in zakat management through improvements in information disclosure, reporting mechanisms, and public access to zakat data. The automation of processes offered by these applications enables real-time updates and more accurate tracking of donations, thereby strengthening the trust of stakeholders. In terms of information disclosure, applications such as Z-PRO and e-Zakat play a role in facilitating the process of collecting and distributing zakat, while ensuring accurate data management and timely reporting (Mesiono et al., 2024). These applications also support comprehensive data collection on muzaki and mustahiq, which in turn strengthens transparency in fund allocation (Uriawan et al., 2024). In terms of reporting mechanisms, the automation feature reduces administrative errors and improves the quality of zakat services, resulting in more reliable financial disclosures. The use of blockchain technology has also been identified as a potential tool for improving the accuracy of reports and strengthening accountability in zakat management (Mokodenseho et al., 2023). Meanwhile, increased public access to zakat management data allows stakeholders to trace the flow of funds and assess the impact of their contributions (Ali & Azzafa, 2024). User satisfaction surveys show that despite concerns about transparency, digital zakat applications are generally perceived positively with high satisfaction levels (Judijanto & Irwan, 2024).

Based on these findings, it can be interpreted that the effectiveness of digital zakat applications in improving transparency is greatly supported by their ability

to provide accurate, timely, and easily accessible information to the public. Real-time updates and reporting based on accounting standards strengthen institutional accountability while building the trust of muzaki. The use of blockchain marks a new trend in zakat management, as this technology promises a system that is more resistant to manipulation and can be verified by all parties. Wide accessibility of public data is also an important instrument in building participation and increasing awareness of zakat in the community. However, this success is still influenced by external factors such as public digital literacy, regulatory readiness, and data security, which are major concerns. When viewed critically, the effectiveness of digital zakat applications in increasing transparency can be categorized as high, but not yet fully optimal. Increased transparency through digitization has proven to minimize administrative errors, improve the quality of financial reports, and strengthen the relationship between OPZ and stakeholders. However, there are still a number of weaknesses, including gaps in digital literacy that can limit access for some muzaki and mustahik, as well as doubts regarding data security that can reduce public trust. In addition, although compliance with PSAK 109 has been strengthened, not all zakat institutions have the technical capacity and resources to implement these standards consistently. Therefore, the effectiveness of digital applications in the context of transparency is highly dependent on a combination of technological, institutional, and community readiness factors.

2. In What Aspects do Digital-Based Zakat Applications Play a Role in Strengthening the Accountability of Zakat Institutions?

Digital-based zakat applications play an important role in strengthening the accountability of zakat institutions through a series of key indicators: financial reporting, auditing, monitoring of zakat distribution, and institutional responsibility to muzaki and mustahik. A study of the Baitul Maal XYZ Foundation shows that the institution has successfully met 100% of accountability indicators and 88% of transparency indicators, including public financial reporting and management information systems (Ansori & Violita, 2025). In terms of financial reporting, institutions such as BAZNAS Kota Cirebon have implemented the principles of accountability and transparency by submitting regularly audited financial reports and complying with PSAK 109 since 2017, although there are still shortcomings in asset reporting (Setiyani et al., 2022). Digital-based audit mechanisms are also strengthened by the role of internal audits in supporting the mitigation of digital information system risks Wulan et al. (2020), while internal and external sharia audits also oversee the compliance of practices with sharia principles, even though the concept is still developing (Megawati & Zulkifli, 2025). The use of digital technology such as sharia crowdfunding, blockchain, and mobile applications has been proven to increase the efficiency of zakat collection,

distribution, and monitoring, while strengthening accountability through transparency and community participation (Susanto et al., 2025).

Digital-based zakat applications play an important role in improving the accountability of zakat institutions through the strengthening of financial reporting systems, monitoring mechanisms, and transparency in fund management. The use of technology in applications such as e-FAMS enables automatic recording of transactions and preparation of financial reports in a standard format, resulting in more accurate and transparent data (Dewintari et al., 2024). The real-time zakat fund tracking feature also makes it easier for institutions to present more detailed financial reports to stakeholders (Syaffa et al., 2025). From a supervisory perspective, digital platforms support continuous monitoring of zakat distribution so that distribution to mustahik can be more targeted (Amellia Tamara et al., 2023). In addition, the availability of digital records facilitates the implementation of regular audits that serve to maintain the accountability of institutions and accelerate handling in the event of data discrepancies (Mosweu & Ngoepe, 2020). On the other hand, the provision of open information regarding zakat distribution also encourages the trust of muzaki and mustahik, while increasing community participation in zakat programs (Rohmaniyah, 2021). Interactive communication facilities in digital applications also provide space for user feedback, which in turn strengthens accountability and increases the responsiveness of zakat institutions.

These findings can be interpreted to mean that digital-based zakat applications strengthen the accountability of zakat institutions in at least four crucial aspects. First, financial reporting becomes more transparent and compliant with standards, thereby minimizing the risk of errors and improving data accuracy. Second, digital and sharia audits serve as a dual oversight mechanism that ensures compliance with both administrative and sharia aspects. Third, real-time monitoring of zakat distribution ensures the effectiveness of fund distribution so that eligible mustahik are more accurately targeted. Fourth, institutional responsibility to muzaki and mustahik is strengthened through information disclosure, interactive communication, and opportunities for users to provide feedback. Thus, accountability is not only understood as administrative compliance, but also as an effort to build transparent and participatory reciprocal relationships with the community. In terms of effectiveness, the contribution of digital applications to accountability can be categorized as very significant, as they have successfully addressed several classic problems in zakat management, such as slow reporting, limited public access to data, and weak manual audit mechanisms. However, there are a number of limitations that need to be considered. First, not all zakat institutions have the technological capacity and human resources to optimally implement a digital-based reporting system. Second, although sharia auditing has been introduced, the conceptual standards are still not uniform, so the potential for inconsistency between institutions remains high.

Third, data security and regulatory readiness are aspects that have not been fully addressed, causing doubts among some stakeholders. Thus, the effectiveness of digitization in strengthening the accountability of zakat institutions needs to be seen as a gradual process that requires systemic strengthening, both in terms of technology, regulation, and institutional capacity.

3. What are the Main Challenges and Opportunities in Optimizing Zakat Management Based on Digital Applications?

Optimizing zakat management through digital applications presents significant challenges and strategic opportunities. In terms of obstacles, limited digital literacy among muzakki and mustahik can reduce participation in the use of technology-based zakat systems (Rohim, 2019). In addition, data security issues are a major concern because the management of sensitive financial information is vulnerable to privacy violations and data leaks, which in turn can undermine public trust in digital zakat platforms (Soleh, 2019). The complexity of regulatory compliance is also a challenge in itself, given that zakat institutions must ensure operational compliance with the applicable legal framework, which often requires additional resources (Santoso, 2019). On the other hand, strategic opportunities can be optimized through integration with financial technology (fintech) services that can simplify the zakat payment process while enhancing the user experience (Muneeza & Nadwi, 2019). The use of big data analysis also has the potential to strengthen the accuracy of zakat distribution targets, so that funds can more effectively reach mustahik who are truly in need. Furthermore, the application of artificial intelligence (AI) technology can automate the administrative processes of zakat institutions, thereby improving efficiency and service quality for both muzakki and mustahik (Nugraha et al., 2019). Thus, the digital transformation of zakat will only be optimal if these fundamental challenges can be overcome, so that innovation can go hand in hand with security, transparency, and accessibility.

Optimizing zakat management through digital applications offers promising strategic opportunities while presenting challenges that need to be anticipated. Digitalization has been proven to increase efficiency and transparency, but several obstacles still hinder implementation, such as low digital literacy among users, which has the potential to limit participation Shiddiqi & Halili (2024), concerns about personal and financial data security that can reduce public interest in using digital zakat platforms Asni & Mustafa (2025), and unclear regulations governing the use of innovative technologies such as blockchain to strengthen transparency (Osato Itohan et al., 2024). On the other hand, strategic opportunities can be maximized through integration with financial technology (fintech) services that can facilitate the collection and distribution of zakat (Rafiki & Andika, 2024), the use of big data to analyze the behavior of muzaki and develop more targeted outreach strategies, and the application of artificial intelligence (AI) to support decision-making in the allocation and monitoring of zakat funds. Thus, the digital

transformation of zakat requires not only technological innovation, but also serious attention to user inclusivity and the strengthening of cybersecurity systems so that its benefits can be realized optimally and sustainably.

These studies indicate that the digitization of zakat is not merely a technological transformation, but rather a systemic change process that requires institutional, regulatory, and societal readiness. Low digital literacy indicates a technological gap that can hinder the adoption of application-based zakat systems, especially for mustahik in rural areas or vulnerable groups. Meanwhile, data security and regulatory issues emphasize that the success of digitization is highly dependent on privacy protection and legal certainty. Conversely, strategic opportunities confirm that digitization can have a significant impact on improving efficiency, transparency, and inclusiveness, provided that technologies such as fintech, big data, and AI are utilized appropriately. Evaluatively, key challenges such as low digital literacy and data security can be considered fundamental obstacles because they are directly related to public trust. Without improved digital literacy, zakat applications will be difficult to access and utilize by all levels of society. Similarly, weak data security systems have the potential to undermine the trust of muzaki and the community in zakat institutions. However, the opportunities offered by digitization far outweigh the challenges. Fintech, big data, and AI not only support efficiency, but also expand reach and improve accountability. Clear regulations and strong security infrastructure are key to balancing these challenges with existing strategic opportunities.
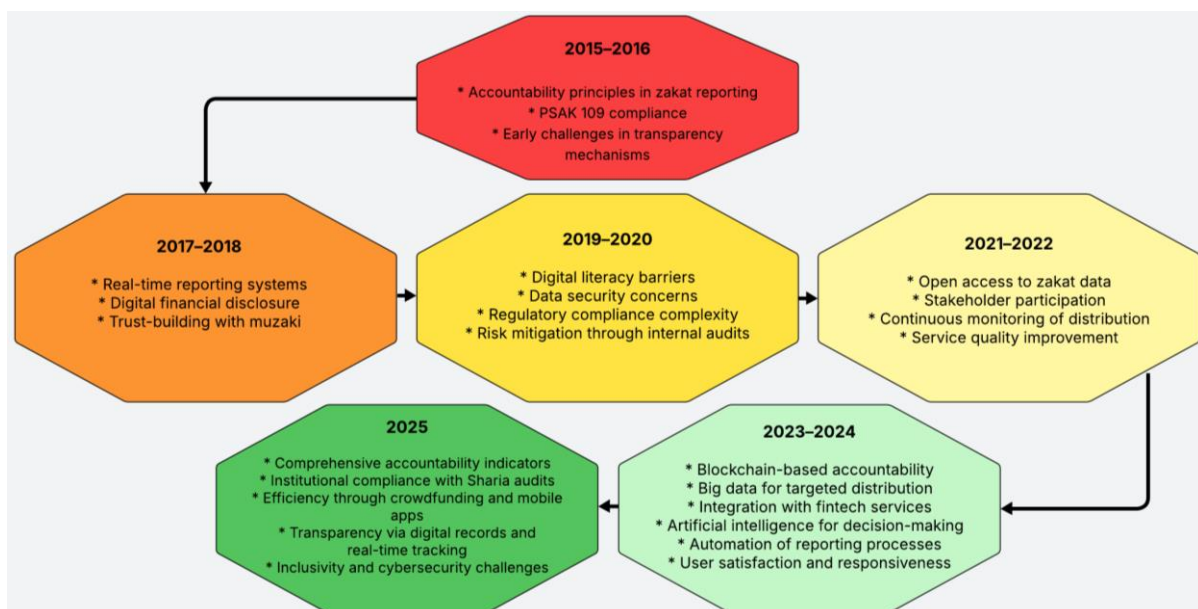

Figure 2. Evolution of Digital-Based Zakat Accountability and Management (2015–2025)

The development of digital-based zakat management demonstrates a gradual transformation of accountability practices, beginning with the adoption of financial reporting principles and PSAK 109 compliance (2015–2016) as the foundation for transparency. This early stage was followed by the emergence of real-time reporting systems and digital disclosure mechanisms (2017–2018), which were crucial in enhancing institutional credibility and strengthening trust among muzaki. However, research in 2019–2020 highlights that the effectiveness of digital zakat platforms was constrained by low digital literacy, data security risks, and regulatory compliance complexities, although internal auditing mechanisms began to play a strategic role in risk mitigation. Entering 2021–2022, the focus shifted towards open access to zakat data, continuous monitoring of fund distribution, and active stakeholder participation, reflecting a transition from technical compliance to interactive accountability and service quality improvement. More advanced innovations emerged in 2023–2024 with the integration of blockchain, big data analytics, fintech services, and artificial intelligence (AI), enabling not only targeted distribution and automation of reporting processes but also data-driven decision-making that enhanced efficiency. By 2025, digital zakat applications have reached a stage of maturity, characterized by comprehensive accountability indicators financial audits, reporting, and monitoring combined with institutional Sharia compliance, while simultaneously leveraging crowdfunding platforms, mobile applications, and real-time tracking systems to improve transparency and responsiveness. Nonetheless, persistent challenges remain in ensuring digital inclusivity and cybersecurity protection, underscoring the need to balance innovation with equitable access and robust safeguards.

D. CONCLUSION AND SUGGESTIONS

Based on the evaluation results, it can be concluded that the digital zakat application has proven to be effective in improving the transparency and accountability of zakat management through information disclosure, more accurate reporting, distribution monitoring, and increased community participation. The integration of technologies such as blockchain, big data, and artificial intelligence strengthens public trust while opening up broader opportunities for optimization. However, the full effectiveness of this system is still hampered by challenges in digital literacy, regulatory readiness, institutional capacity, and data security issues. The main gap that is apparent is the lack of in-depth studies on sustainable implementation strategies to overcome these obstacles, including how to develop adaptive regulations, standardized data security systems, and inclusive digital literacy models for muzakki and mustahik. Therefore, an urgent research topic for future study is the development of a holistic and sustainable digital zakat management framework that emphasizes not only technological aspects but also regulatory, literacy, and institutional governance

dimensions so that the benefits of zakat digitization can be distributed evenly, securely, and in accordance with sharia principles.

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