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Measuring the Effectiveness of Cash Waqf Digital Platforms in Promoting Sustainable Development Goals

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Abstract

The rapid growth of digital technology has transformed the management of cash waqf by improving fundraising efficiency, transparency, and accessibility. Despite these developments, empirical evidence measuring the effectiveness of digital cash waqf platforms in promoting the Sustainable Development Goals (SDGs) remains limited. This study aims to evaluate the effectiveness of digital cash waqf platforms by examining the relationships among digital platform quality, transparency, digital governance, stakeholder trust, fundraising efficiency, and SDG achievement. A quantitative explanatory research design was employed using survey data collected from 352 users of digital cash waqf platforms in Indonesia. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings reveal that digital platform quality, transparency, and digital governance significantly enhance stakeholder trust and fundraising efficiency. Fundraising efficiency was found to have a positive and significant effect on SDG achievement, demonstrating that effective digital waqf management contributes to sustainable socioeconomic development. The study proposes an integrated evaluation framework that combines technological, governance, and organizational dimensions to measure digital cash waqf effectiveness. The findings provide theoretical contributions to the Islamic Social Finance literature while offering practical recommendations for waqf institutions and policymakers to strengthen digital governance, improve transparency, and maximize the contribution of cash waqf toward sustainable development.

Keywords: cash waqf; digital platform; fundraising efficiency; islamic social finance; sustainable development goals

Introduction

Sustainable Development Goals (SDGs) have become the central framework guiding global development policies since their adoption by the United Nations in 2015. The 17 interconnected goals emphasize the importance of eliminating poverty, reducing inequality, promoting quality education, improving healthcare, fostering environmental sustainability, and strengthening institutional governance. Despite significant progress in several regions, many developing countries continue to face substantial financing gaps that hinder the implementation of SDG-related programs. Public budgets alone are insufficient to meet increasing development demands, while fluctuations in the global economy have further constrained government spending and private investment. Consequently, alternative financing mechanisms that combine social responsibility, financial sustainability, and community participation have received growing attention

Received: 14 May 2026

Revised: 22 May 2026

Accepted: 16 June 2026

Published: 27 June 2026

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from scholars and policymakers. Among these mechanisms, Islamic Social Finance has emerged as a promising approach because it integrates ethical financial principles with long-term socioeconomic development objectives (Dirie et al., 2024; Raimi et al., 2024).

Islamic Social Finance encompasses various instruments, including zakat, waqf, sadaqah, and qardhul hasan, which collectively contribute to poverty alleviation, wealth redistribution, and sustainable economic development. Among these instruments, cash waqf has attracted increasing academic and practical interest due to its flexibility and long-term investment potential. Unlike traditional waqf, which is generally limited to immovable assets such as land and buildings, cash waqf allows individuals to contribute financial resources that can be professionally managed and invested to generate sustainable social benefits. The returns generated from these investments can support education, healthcare, infrastructure, environmental conservation, entrepreneurship, and humanitarian assistance without reducing the principal endowment. This characteristic positions cash waqf as a strategic financing instrument capable of supporting multiple SDGs simultaneously while ensuring long-term financial sustainability (Kachkar & Alfares, 2022; Dirie et al., 2024; Yusuf et al., 2024).

Recent studies have demonstrated that properly managed cash waqf programs significantly contribute to social welfare and economic empowerment. Cash waqf has supported scholarship programs, hospital development, microfinance initiatives, disaster recovery, and community development projects in many Muslim-majority countries. Moreover, productive waqf investment has enabled institutions to create continuous funding streams that reduce dependence on temporary charitable donations. The integration of waqf into national development strategies has therefore become increasingly important, particularly in countries seeking innovative financing solutions to accelerate SDG implementation. Previous research also indicates that cash waqf can strengthen economic resilience by supporting productive sectors, promoting financial inclusion, and expanding access to social services for vulnerable populations (Moslem & Amalia, 2023; Budiman et al., 2025; Hasibuan et al., 2025; Gustanto et al., 2025).

The growing importance of cash waqf has been accompanied by rapid technological advancement that is transforming the management of Islamic philanthropic institutions. Digital transformation has fundamentally changed how charitable organizations collect donations, communicate with stakeholders, manage operational activities, and report financial performance. The emergence of financial technology (FinTech), mobile applications, cloud computing, blockchain, artificial intelligence, and big data analytics has enabled waqf institutions to modernize conventional management systems and improve organizational performance. These technological innovations provide faster transaction processing, broader donor outreach, lower operational costs, improved financial transparency, and stronger accountability mechanisms. Consequently, digital transformation has become an essential strategy for enhancing institutional effectiveness and increasing public trust in Islamic philanthropic organizations (Maisyarah & Hadi, 2024; Sakinah, 2025).

Digital cash waqf platforms have further expanded opportunities for community participation by eliminating geographical and administrative barriers that previously limited donor engagement. Individuals can now contribute to waqf funds through mobile applications, internet banking, electronic wallets, and integrated crowdfunding platforms at any time and from any location. This accessibility has encouraged younger generations, who are generally more familiar with digital technology, to participate in Islamic philanthropy. Furthermore, digital platforms facilitate real-time reporting, automated transaction records, online monitoring, and interactive communication between waqf institutions and donors. Such features increase operational transparency while enhancing donor confidence regarding the utilization of waqf funds. Studies consistently report that digital innovation improves fundraising efficiency, expands donor networks, and

strengthens institutional governance within waqf organizations (Nuradi et al., 2024; Ali & Jadidah, 2024; Jaafar & Yaakob, 2025).

Emerging technologies also introduce new possibilities for strengthening the governance of digital cash waqf platforms. Blockchain technology, for example, offers immutable transaction records that enhance transparency and reduce opportunities for fraud. Artificial intelligence enables predictive analysis of donor behavior, optimization of fundraising strategies, and more effective allocation of waqf resources. Big data analytics assists institutions in identifying community needs and evaluating program performance based on measurable indicators. Smart governance frameworks integrating these technologies have been proposed to improve accountability, stakeholder trust, and institutional sustainability while supporting broader development objectives. These technological developments demonstrate that digital transformation extends beyond operational efficiency by creating opportunities for evidence-based decision making and continuous performance improvement within waqf institutions (Ismail et al., 2025; Muharam & Osman, 2024; MoghadasNian et al., 2025).

Although previous studies have consistently emphasized the benefits of digital transformation in waqf management, evaluating the actual effectiveness of digital cash waqf platforms remains a significant challenge. Most existing research measures success through operational indicators such as fundraising growth, the number of donors, technological adoption, or governance improvement. While these indicators provide valuable insights into institutional performance, they do not fully explain whether digital platforms effectively contribute to broader sustainable development outcomes. Measuring platform effectiveness requires a multidimensional perspective that integrates technological quality, organizational governance, fundraising performance, stakeholder trust, and measurable contributions to the Sustainable Development Goals. Consequently, there is an increasing need for comprehensive evaluation frameworks capable of linking digital innovation with tangible socioeconomic impacts (Wibowo, 2023; MoghadasNian et al., 2025).

Several empirical studies have demonstrated that digital platforms significantly improve fundraising efficiency by simplifying donation procedures and expanding donor accessibility. Online payment systems, mobile applications, and integrated crowdfunding platforms enable donors to contribute instantly while reducing transaction costs and administrative complexity. Digital platforms also facilitate continuous communication through personalized notifications, campaign updates, and financial reports, thereby strengthening donor engagement. Furthermore, integrated financial management systems improve operational efficiency by automating accounting processes, monitoring fund allocation, and generating transparent reports. These advantages enable waqf institutions to allocate more resources toward social programs rather than administrative expenses, increasing their overall development impact (Maisyarah & Hadi, 2024; Nuradi et al., 2024; Cinta M et al., 2025).

Transparency and accountability represent additional dimensions that determine the effectiveness of digital cash waqf platforms. Donors increasingly expect detailed information regarding fund collection, investment management, project implementation, and social outcomes. Digital technologies provide opportunities to disclose such information through real-time dashboards, electronic reports, blockchain-based transaction verification, and automated auditing systems. Greater transparency reduces information asymmetry between institutions and donors while strengthening institutional legitimacy. Accountability also encourages better governance practices because organizational performance becomes continuously observable by stakeholders. Previous studies suggest that increased transparency positively influences donor satisfaction, organizational credibility, and long-term fundraising sustainability, making governance quality a crucial determinant of digital platform effectiveness (Jaafar & Yaakob, 2025; Muharam & Osman, 2024; MoghadasNian et al., 2025).

Another critical factor influencing digital cash waqf performance is stakeholder trust. Trust remains the foundation of Islamic philanthropic activities because contributors expect their donations to be managed according to Islamic principles while generating meaningful social benefits. The adoption of secure digital technologies, transparent financial reporting, and responsive communication enhances donor confidence and encourages repeated contributions. Conversely, inadequate governance, limited disclosure, or technological vulnerabilities may reduce public confidence regardless of technological sophistication. Recent conceptual frameworks emphasize that trust mediates the relationship between digital governance and fundraising performance, indicating that technological innovation alone cannot guarantee institutional effectiveness without strong governance mechanisms and ethical management practices (Ismail et al., 2025; Jaafar & Yaakob, 2025).

Despite the substantial body of literature on Islamic Social Finance, important research gaps remain. Existing studies generally examine digital transformation, blockchain implementation, fintech integration, governance models, crowdfunding mechanisms, Cash Waqf Linked Sukuk (CWLS), or the theoretical contribution of waqf to sustainable development independently. Few empirical investigations have developed comprehensive measurement models capable of simultaneously evaluating platform quality, governance, transparency, stakeholder trust, fundraising efficiency, and their collective contribution to SDG achievement. Moreover, most previous studies adopt qualitative or conceptual approaches, limiting the availability of empirical evidence regarding the causal relationships among these constructs. Scholars have therefore recommended developing robust evaluation frameworks that integrate technological, organizational, and developmental dimensions to assess the real effectiveness of digital cash waqf platforms (Dirie et al., 2024; Kachkar & Alfares, 2022; Cammarano et al., 2026; Raimi et al., 2024).

This study addresses these limitations by proposing a comprehensive framework for measuring the effectiveness of digital cash waqf platforms in promoting the Sustainable Development Goals. Unlike previous studies that primarily focus on individual aspects of digitalization or governance, this research integrates digital platform quality, transparency, accountability, stakeholder trust, fundraising efficiency, and SDG achievement into a unified analytical model. The proposed framework contributes theoretically by extending the literature on Islamic Social Finance through an integrated effectiveness measurement model. Practically, the findings are expected to provide evidence-based recommendations for waqf institutions, regulators, policymakers, and technology developers seeking to improve digital waqf governance and maximize the social impact of Islamic philanthropic institutions. Accordingly, this study seeks to answer three principal research questions: (1) How effective are digital cash waqf platforms in promoting the Sustainable Development Goals? (2) Which factors significantly influence the effectiveness of digital cash waqf platforms? (3) How do digital platform quality, governance, transparency, stakeholder trust, and fundraising efficiency collectively contribute to achieving sustainable development outcomes? These questions form the foundation for developing an empirical model that supports both academic advancement and practical implementation of digital cash waqf in sustainable development initiatives.

Methods

This study employed a quantitative explanatory research design to examine the effectiveness of digital cash waqf platforms in promoting the Sustainable Development Goals (SDGs). An explanatory approach was selected because the study aimed to investigate the causal relationships among digital platform quality, transparency, accountability, digital governance, stakeholder trust, fundraising efficiency, and SDG achievement. Quantitative research provides a systematic procedure for testing theoretical

relationships through empirical data and enables the measurement of latent constructs using statistical techniques. This design is appropriate for evaluating complex interactions among technological, organizational, and social variables that collectively influence the performance of digital cash waqf platforms (Dirie et al., 2024; Raimi et al., 2024; Ismail et al., 2025).

The study focused on users of digital cash waqf platforms operating in Indonesia. These platforms included nationally recognized institutions that provide online cash waqf services through websites, mobile applications, or integrated digital payment systems, such as Badan Wakaf Indonesia (BWI), Dompot Dhuafa, Global Wakaf, Pasifamal.id, and other registered waqf institutions implementing digital fundraising mechanisms. Indonesia was selected because it possesses one of the largest Muslim populations in the world and has experienced rapid digital transformation within the Islamic philanthropic sector. The increasing adoption of financial technology and digital fundraising platforms provides an appropriate context for evaluating how technological innovation contributes to sustainable development through Islamic Social Finance (Maisyarah & Hadi, 2024; Moslem & Amalia, 2023; Cinta M et al., 2025).

The target population consisted of individuals who had previously used a digital cash waqf platform to make donations. Respondents were required to satisfy three inclusion criteria. First, they had made at least one cash waqf transaction through a digital platform within the previous two years. Second, they were at least 17 years old to ensure legal and practical understanding of digital financial transactions. Third, they voluntarily agreed to participate in the survey after receiving information regarding the research objectives. A purposive sampling technique was employed because the study required respondents with direct experience using digital cash waqf platforms. Following recommendations for Structural Equation Modeling (SEM), a minimum sample size of 300 respondents was established to ensure sufficient statistical power and stable parameter estimation for multivariate analysis involving multiple latent variables and indicators.

Primary data were collected using a structured questionnaire developed from established theoretical constructs identified in previous studies. The questionnaire consisted of two sections. The first section collected respondents' demographic information, including gender, age, educational background, occupation, frequency of digital cash waqf participation, and preferred digital platform. The second section measured the research variables using multiple indicators adapted from previous literature. Digital platform quality was assessed through indicators of usability, accessibility, system reliability, information quality, transaction security, and service responsiveness. Transparency was measured through financial disclosure, reporting accessibility, information completeness, and transaction traceability. Digital governance reflected accountability, compliance, institutional management, and ethical administration. Stakeholder trust included confidence in institutional credibility, technological security, organizational integrity, and fund management. Fundraising efficiency represented the effectiveness of digital fundraising activities, donor participation, operational efficiency, and fundraising performance. Finally, SDG achievement measured respondents' perceptions regarding the contribution of digital cash waqf toward poverty alleviation, education, healthcare, economic empowerment, social inclusion, and sustainable community development. These measurement dimensions were adapted from previous studies concerning digital waqf management, Islamic Social Finance, fintech adoption, and sustainable development (Maisyarah & Hadi, 2024; Jaafar & Yaakob, 2025; MoghadasNian et al., 2025; Wibowo, 2023).

All questionnaire items were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Prior to large-scale data collection, the instrument underwent expert validation involving three academics specializing in Islamic economics, digital finance, and research methodology. A pilot study involving 30 respondents was subsequently conducted to evaluate clarity, readability, and preliminary

reliability of the measurement items. Feedback obtained during the pilot stage was used to improve wording consistency and eliminate ambiguous statements before distributing the final questionnaire.

Data collection was conducted through an online survey distributed via digital communication channels associated with Islamic philanthropic organizations and social media communities. Online data collection was selected because respondents were active users of digital platforms and could be reached efficiently through internet-based communication. Participation was entirely voluntary, and respondents were informed that their responses would remain anonymous and be used solely for academic purposes. Ethical principles concerning informed consent, confidentiality, privacy protection, and voluntary participation were maintained throughout the research process.

The collected data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS software. PLS-SEM was selected because it is suitable for predictive research, accommodates complex structural models containing multiple latent variables, and does not require strict multivariate normality assumptions. Furthermore, PLS-SEM performs effectively with behavioral research involving perception-based survey data and supports simultaneous evaluation of measurement and structural models.

The analysis proceeded through several stages. Descriptive statistics were first employed to summarize respondent characteristics and variable distributions. The measurement model was then evaluated by examining indicator reliability, factor loadings, Cronbach's alpha, composite reliability, average variance extracted (AVE), convergent validity, and discriminant validity using the Fornell-Larcker criterion and Heterotrait-Monotrait (HTMT) ratio. Subsequently, the structural model was assessed through collinearity diagnostics, coefficient of determination (R^2), predictive relevance (Q^2), effect size (f^2), standardized path coefficients, and bootstrapping with 5,000 resamples to test the proposed hypotheses. Statistical significance was determined at a 95% confidence level with a p-value below .05. The analytical results were interpreted to determine the direct and indirect relationships among digital platform quality, transparency, digital governance, stakeholder trust, fundraising efficiency, and SDG achievement, thereby providing empirical evidence regarding the effectiveness of digital cash waqf platforms in supporting sustainable development.

Results and Discussion

A total of 352 valid responses were collected from users of digital cash waqf platforms in Indonesia and were included in the final analysis. This sample size exceeded the minimum requirement for Partial Least Squares Structural Equation Modeling (PLS-SEM), thereby ensuring adequate statistical power for testing the proposed structural relationships. Respondents represented diverse demographic backgrounds, providing a comprehensive overview of digital cash waqf users across different age groups, educational levels, occupations, and frequencies of platform utilization. Most respondents were between 25 and 40 years old, reflecting the demographic segment that actively adopts digital financial technologies. More than half of the respondents possessed undergraduate or postgraduate qualifications, indicating a relatively high level of digital literacy that facilitates the adoption of online philanthropic services. The majority reported using digital cash waqf platforms at least twice during the previous year, suggesting that respondents had sufficient experience to evaluate the quality and effectiveness of the platforms.

Regarding platform preference, respondents identified several nationally recognized institutions, including Badan Wakaf Indonesia (BWI), Dompet Dhuafa, Global Wakaf, and Pasifamal.id, as their primary digital cash waqf providers. Most participants accessed these services through mobile applications and integrated electronic payment

systems because they offered convenient transactions, flexible payment methods, and immediate confirmation of donations. These findings illustrate the increasing acceptance of digital technology within Islamic philanthropy and indicate that digital platforms have become an important medium for expanding public participation in cash waqf. The growing adoption of digital services supports previous studies that emphasize the strategic role of financial technology in increasing accessibility, reducing transaction barriers, and encouraging broader community engagement in Islamic Social Finance (Maisyarah & Hadi, 2024; Sakinah, 2025; Ali & Jadidah, 2024).

Descriptive statistical analysis revealed generally positive perceptions across all research variables. Digital Platform Quality obtained the highest average score among all constructs, indicating that respondents perceived digital cash waqf platforms as user-friendly, reliable, and capable of facilitating secure financial transactions. Respondents expressed particular satisfaction with interface simplicity, transaction speed, payment flexibility, and the availability of multiple digital payment channels. These findings demonstrate that technological innovation has significantly improved users' experiences by simplifying the donation process and reducing operational complexity. Previous studies similarly concluded that digital platforms increase fundraising efficiency by providing accessible and convenient mechanisms that encourage recurring participation from donors (Nuradi et al., 2024; Wibowo, 2023).

Transparency also received a high evaluation from respondents. Most participants agreed that digital platforms provided sufficient information regarding fundraising activities, financial reports, project implementation, and fund allocation. Features such as online progress reports, transaction histories, and periodic updates enabled donors to monitor the utilization of their contributions more effectively than conventional waqf management systems. Respondents considered transparent reporting an important determinant of institutional credibility because it reduced uncertainty regarding the management of donated funds. These findings support earlier research suggesting that transparency enhances organizational legitimacy and strengthens donor confidence by minimizing information asymmetry between waqf institutions and contributors (Jaafar & Yaakob, 2025; Muharam & Osman, 2024).

Similarly, Digital Governance and Stakeholder Trust recorded relatively high mean values. Respondents perceived digital cash waqf institutions as maintaining appropriate governance standards through responsible financial management, regulatory compliance, and ethical administration. Strong governance practices contributed directly to higher institutional trust, particularly regarding the security of digital transactions and the credibility of organizational management. These findings reinforce the argument that technological innovation alone cannot ensure institutional effectiveness unless accompanied by transparent governance structures and accountable management systems. The positive relationship between governance quality and stakeholder trust has also been emphasized in previous conceptual frameworks, which argue that trust functions as a critical mechanism linking digital transformation with sustainable fundraising performance (Ismail et al., 2025; MoghadasNian et al., 2025).

Before evaluating the proposed structural relationships, the measurement model was assessed to ensure the reliability and validity of all latent constructs. Indicator reliability analysis showed that all standardized factor loadings exceeded the recommended threshold of 0.70, indicating that every measurement item adequately represented its respective construct. Internal consistency reliability was confirmed through Cronbach's alpha and Composite Reliability values greater than 0.70 for all variables. Convergent validity was established because the Average Variance Extracted (AVE) for every construct exceeded the recommended value of 0.50, demonstrating that each construct explained more than half of the variance of its indicators. Furthermore, discriminant validity was verified using both the Fornell-Larcker criterion and the Heterotrait-Monotrait (HTMT) ratio, confirming that each construct measured a distinct

theoretical concept. Collectively, these results indicate that the measurement model satisfied established psychometric standards and provided a robust foundation for subsequent structural model evaluation and hypothesis testing.

Following the confirmation that the measurement model met the required reliability and validity criteria, the structural model was evaluated to examine the causal relationships proposed in the research framework. The assessment included multicollinearity diagnostics, the coefficient of determination (R^2), effect size (f^2), predictive relevance (Q^2), and hypothesis testing using the bootstrapping procedure with 5,000 resamples. The variance inflation factor (VIF) values for all predictor constructs were below the recommended threshold of 3.30, indicating that multicollinearity was not a concern and that each independent variable contributed unique explanatory power to the model. Furthermore, the Stone-Geisser Q^2 values for both endogenous constructs were positive, confirming that the model possessed satisfactory predictive relevance and was capable of explaining variations in fundraising efficiency and SDG achievement.

The coefficient of determination revealed that the proposed model explained a substantial proportion of the variance in the dependent variables. Digital Platform Quality, Transparency, Digital Governance, and Stakeholder Trust jointly accounted for a high percentage of the variation in Fundraising Efficiency, while Fundraising Efficiency, together with Transparency and Stakeholder Trust, explained a considerable proportion of the variance in SDG Achievement. These findings demonstrate that the integration of technological and governance-related factors provides a comprehensive explanation of how digital cash waqf platforms generate sustainable social outcomes. The relatively high explanatory power also indicates that the conceptual framework developed in this study is appropriate for assessing the effectiveness of digital cash waqf platforms in supporting sustainable development initiatives.

Hypothesis testing demonstrated that Digital Platform Quality had a significant positive effect on Fundraising Efficiency. This result indicates that improvements in platform usability, transaction security, accessibility, information quality, and system reliability directly enhance fundraising performance. Respondents perceived that user-friendly interfaces and efficient digital services encouraged more frequent donations while reducing operational barriers associated with conventional fundraising mechanisms. These findings reinforce previous studies that emphasized the importance of financial technology in expanding donor participation through simplified transaction processes and improved user experiences (Maisyarah & Hadi, 2024; Nuradi et al., 2024). The result also suggests that technological quality should not merely be viewed as an operational feature but as a strategic resource that directly influences institutional fundraising capacity.

The analysis further revealed that Transparency exerted a positive and statistically significant influence on Fundraising Efficiency. Respondents expressed greater willingness to contribute through platforms that provided comprehensive financial reports, project updates, and transparent allocation of waqf funds. Digital reporting systems enabled contributors to monitor how their donations were utilized, thereby reducing uncertainty and increasing confidence in institutional management. Transparent communication also strengthened organizational legitimacy by demonstrating accountability and responsible governance. These findings support the arguments presented by Jaafar and Yaakob (2025) and Muharam and Osman (2024), who emphasized that transparency serves as a critical determinant of donor satisfaction and long-term organizational sustainability. The present findings therefore indicate that transparency functions not only as a governance principle but also as a mechanism that directly improves fundraising effectiveness.

Similarly, Digital Governance demonstrated a significant positive relationship with Stakeholder Trust, confirming that governance quality plays a central role in building public confidence in digital cash waqf institutions. Respondents perceived that

organizations implementing effective governance practices, including regulatory compliance, ethical administration, financial accountability, and systematic internal control, were more trustworthy than institutions with limited governance mechanisms. Trust subsequently emerged as an essential organizational asset because it encouraged repeated participation and strengthened long-term donor commitment. This finding aligns with the governance frameworks proposed by Ismail et al. (2025) and MoghadasNian et al. (2025), which identify governance as a prerequisite for sustainable digital transformation within waqf institutions.

Finally, Stakeholder Trust exhibited a strong positive effect on Fundraising Efficiency, highlighting its role as a mediating mechanism between governance and organizational performance. Trust increased donors' confidence that their contributions would be managed professionally, ethically, and in accordance with Islamic principles. As trust strengthened, respondents demonstrated greater willingness to continue donating through digital platforms and to recommend these services to others. This outcome confirms that technological innovation alone is insufficient to maximize fundraising performance unless supported by credible governance structures and sustained public trust. Consequently, digital cash waqf institutions should simultaneously invest in technological development, transparent governance, and relationship-building strategies to enhance fundraising effectiveness and establish a solid foundation for achieving broader sustainable development objectives.

The final stage of the structural model evaluation examined the influence of Fundraising Efficiency on Sustainable Development Goals (SDG) Achievement. The results indicated a positive and statistically significant relationship, confirming that improvements in fundraising performance directly enhance the contribution of digital cash waqf platforms to sustainable development. Institutions capable of mobilizing larger volumes of cash waqf through efficient digital systems possess greater financial capacity to support education, healthcare, poverty alleviation, entrepreneurship, environmental initiatives, and community development programs. Efficient fundraising therefore serves as the operational mechanism that transforms technological innovation into measurable social outcomes. This finding supports previous studies arguing that digital fundraising strengthens the financial sustainability of waqf institutions while expanding their capacity to finance long-term development programs aligned with the SDGs (Wibowo, 2023; Cinta M et al., 2025).

The structural relationships identified in this study demonstrate that digital transformation contributes to sustainable development through an integrated sequence of organizational processes rather than through technology alone. High-quality digital platforms improve user experience and facilitate transparent financial reporting, while effective digital governance strengthens institutional accountability and reinforces stakeholder trust. These factors collectively increase fundraising efficiency, which subsequently enables waqf institutions to finance broader and more sustainable development initiatives. This integrated mechanism extends previous conceptual discussions by providing empirical evidence that digital technology, governance quality, and stakeholder confidence are mutually reinforcing components of an effective digital cash waqf ecosystem. The findings therefore complement earlier theoretical frameworks proposed by Ismail et al. (2025), Jaafar and Yaakob (2025), and MoghadasNian et al. (2025), which emphasized the strategic importance of digital governance in Islamic philanthropic institutions.

The present findings also contribute to the growing literature on Islamic Social Finance by demonstrating that the effectiveness of digital cash waqf should be evaluated using multidimensional indicators rather than isolated technological measures. Previous studies have primarily emphasized digital innovation, blockchain adoption, crowdfunding mechanisms, or governance reforms independently (Maisyarah & Hadi, 2024; Muharam & Osman, 2024; Nuradi et al., 2024). In contrast, this study integrates

technological quality, transparency, governance, stakeholder trust, fundraising efficiency, and SDG achievement into a unified empirical model. This comprehensive approach provides a broader understanding of how digital transformation influences organizational performance and social impact simultaneously. The results also reinforce systematic literature reviews suggesting that future research should adopt integrated evaluation frameworks capable of connecting Islamic Social Finance with measurable sustainable development outcomes (Dirie et al., 2024; Raimi et al., 2024).

From a theoretical perspective, this study extends the Islamic Social Finance literature by validating an integrated effectiveness model for digital cash waqf platforms. The findings demonstrate that digital platform quality alone does not guarantee successful organizational performance. Instead, transparency, governance quality, and stakeholder trust function as complementary dimensions that strengthen fundraising performance and ultimately enhance contributions to the SDGs. This integrated perspective enriches existing theories of digital governance and technology adoption by incorporating the ethical and institutional characteristics unique to Islamic philanthropic organizations. Consequently, the proposed framework offers a more comprehensive explanation of how technological innovation creates sustainable social value within the waqf ecosystem.

The study also provides several practical implications for policymakers, waqf institutions, and technology developers. Waqf institutions should prioritize continuous investment in secure and user-friendly digital platforms while simultaneously strengthening governance systems, financial transparency, and organizational accountability. Providing real-time reporting, standardized performance indicators, and accessible information regarding fund allocation can further increase donor confidence and encourage long-term participation. Policymakers may utilize the findings to develop national guidelines for digital waqf governance, establish standardized performance measurement frameworks, and promote collaboration among regulators, Islamic financial institutions, and technology providers. Such collaborative efforts will contribute to building a more transparent, accountable, and sustainable digital cash waqf ecosystem capable of supporting national and global SDG agendas. Overall, the empirical evidence confirms that the effectiveness of digital cash waqf platforms depends not only on technological innovation but also on the successful integration of governance quality, stakeholder trust, and fundraising efficiency in generating sustainable socioeconomic impact.

Conclusion

This study examined the effectiveness of digital cash waqf platforms in promoting the Sustainable Development Goals by integrating technological, governance, and organizational dimensions into a comprehensive evaluation framework. The findings demonstrate that digital platform quality, transparency, digital governance, and stakeholder trust play significant roles in improving fundraising efficiency, which subsequently enhances the contribution of cash waqf to sustainable development. High-quality digital services simplify donation processes, strengthen accountability, and increase public confidence, creating a sustainable environment for long-term philanthropic participation. The results also confirm that fundraising efficiency serves as the primary mechanism through which digital transformation generates measurable social and economic impacts across various SDG-related sectors.

The proposed framework provides a holistic perspective for assessing digital cash waqf platforms by combining technological performance with governance quality and development outcomes. This integrated approach extends existing knowledge on Islamic Social Finance and offers practical guidance for strengthening digital waqf management. Waqf institutions should continuously improve platform usability, transparency, and governance practices while adopting advanced digital technologies to increase donor

engagement and operational efficiency. Policymakers should support these efforts by establishing standardized governance guidelines and performance indicators that encourage accountability and innovation. Future research is encouraged to validate the proposed model across different countries and institutional settings while incorporating additional variables that may influence the long-term effectiveness and sustainability of digital cash waqf platforms.

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