

INTEGRATION OF DIGITAL TECHNOLOGY IN ZAKAT MANAGEMENT: FROM ACCOUNTABILITY TO MUZZAKI LOYALTY THROUGH TRUST

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ABSTRACT

The numerous issues occurring within zakat institutions and the lack of trust from muzzaki in giving their zakat directly to zakat managers have led to repeated receipt of zakat by mustahik. Therefore, this research aims to examine the influence of the variables of accountability and digital technology on the loyalty of muzzaki, with trust as a moderating variable. This research was conducted at a Zakat institution in Indonesia called the Indonesian Zakat Initiative (IZI) North Sumatra, with a total of 150 respondents. The data was processed using Smart PLS 3.0. The research results indicate that the accountability variable does not affect loyalty, the digital technology variable does affect loyalty, the accountability variable moderated by the trust variable does not affect loyalty, and the digital technology variable moderated by the trust variable does not affect loyalty. The implications of this research are an increase in more transparent and accountable zakat practices, which not only enhance the trust and satisfaction of the muzzaki but also strengthen the overall foundation of Islamic finance.

Keywords: *Accountability, Digital technology, Trust, Loyalty*

INTRODUCTION

Accountability plays an important role in shaping the effectiveness of zakat management and fostering trust in Islamic financial institutions. The quality of accounting information, accountability, and transparency in influencing zakat receipts (Nikmatuniayah et al., 2017), this sees how the quality of information and the level of accountability managed by Zakat institutions can have a significant impact on the willingness of individuals to contribute to Zakat funds.

Accountability is essential in Zakat management, not only in ensuring proper utilization of funds but also in building trust and confidence among stakeholders. Upholding transparency, maintaining a high level of accountability, and adhering to ethical practices are essential for the continued growth and impact of Zakat institutions.

In the field of Zakat institutions and Muzzaki loyalty, the concept of accountability stands out as a fundamental pillar that influences trust, compliance, and ultimately loyalty. Studies such as (Ikhwandha & Hudayati, 2019) emphasize the importance of the role of accountability in shaping Muzzaki's trust and interest in paying Zakat through institutions. Accountability, combined with transparency, influences Muzzaki's perception of Zakat institutions, can influence Muzzaki's willingness to contribute and Muzzaki's loyalty, increase its credibility and foster a culture of trust among donors and beneficiaries (Rejab et al., 2023).

Moreover, the integration of digital technology in zakat management (Amsari et al., 2023), as explored in (Mutamimah et al., 2021) and (Utami et al., 2020), presents opportunities to improve accountability and efficiency. By utilizing an ICT-based collaborative framework and digital payment system, zakat institutions can simplify processes, increase transparency, and build credibility, thereby strengthening the trust and loyalty of Muzzaki. The implementation of digitalization not only facilitates fund management but also contributes to the overall effectiveness of Zakat institutions in fulfilling their mandate.

With good governance and zakat compliance, which are discussed in the research (Aziz Awang et al., 2023; Tsalas et al., 2019)(Sawmar & Mohammed, 2021), it highlights how governance practices impact Muzzaki behavior. A governance framework that prioritizes accountability and transparency can instill trust in Muzzaki, foster compliance and loyalty to Zakat institutions. By upholding the principles of good governance, zakat institutions can foster a culture of trust, encourage continued involvement and support from Muzzaki(Adiyes Putra et al., 2023).

A good synergy between accountability, digital technology, Muzzaki trust, and governance plays an important role in shaping Muzzaki loyalty to Zakat institutions. By implementing transparency, utilizing digital innovation, and implementing a strong governance structure, zakat institutions can not only improve operational efficiency but also foster lasting relationships with Muzzaki, foster loyalty and sustainable impact in the field of Islamic finance and charity.

Previous research on accountability, digital technology, and trust in the context of Muzzaki loyalty reveals several gaps and limitations that require further exploration. One of the main gaps identified is the need for a more comprehensive understanding of the interconnections between accountability, transparency, trust, and their impact on Muzzaki loyalty. Although studies such as (Hudayati & Tohirin, 2019; Ikhwandha & Hudayati, 2019;

Mutmainah, 2016) have investigated the influence of accountability, transparency, and trust on Muzzaki behavior, there is still a lack of in-depth analysis on how these factors collectively shape Muzzaki loyalty towards Zakat.

The integration of digital technology in zakat management, as explored in (Meerangani et al., 2022; Zubaidah & Afifah, 2020), provides a promising opportunity to improve accountability and efficiency. However, there is a gap in understanding the extent to which digitalization affects Muzzaki trust and loyalty towards zakat institutions. The limited research in this area may be due to the rapid evolution of digital technology and the challenges in assessing the long-term impact of digital initiatives on Muzzaki behavior and institutional trust (Hadi et al., 2024).

Addressing this gap is critical for several reasons as a deeper understanding of how accountability, digital technology, and trust (Bodó, 2021) intersect can provide insights into designing more effective strategies to foster Muzzaki loyalty and engagement (Setyadi et al., 2023). By bridging this gap, researchers and practitioners can develop tailored approaches that enhance transparency, build trust, and ultimately strengthen the bond between Muzzaki and Zakat institutions (Ayuniyyah et al., 2020). Furthermore, addressing this research gap can contribute to the advancement of knowledge in Islamic finance, guiding policymakers and stakeholders in optimizing Zakat management practices in order to better serve the community and promote sustainable development.

By addressing the gaps in existing research on accountability, digital technology, trust, and loyalty of Muzzaki, scholars can pave the way for more informed decision-making (Aguera et al., 2020), better practices, and better outcomes in the field of charitable giving and Islamic financial management (Rosman et al., 2024). Further research investigating these intersections is essential to foster innovation, promote accountability, and foster lasting relationships between Muzzaki and Zakat institutions.

The purpose of this study is to empirically determine the influence of reputation, transparency, accountability of zakat institutions, muzzaki religiosity, and muzzaki trust in the institution on muzzaki's intention to pay professional zakat through collectors (Mukhibad et al., 2019). This study aims to determine the factors that influence Muzzaki's intention to donate Zakat funds, highlighting the importance of reputation, transparency, and accountability in fostering trust and commitment among Muzzaki towards Zakat institutions. By examining these determinants, this study seeks to improve understanding of the dynamics that shape Muzzaki loyalty and involvement in the context of professional Zakat payments.

Addressing this research gap is critical as it can provide valuable insights into the factors that drive Muzzaki behavior and decision-making regarding Zakat contributions. By explaining the impact of reputation, transparency, and accountability on Muzzaki intentions to pay professional Zakat, this research can inform strategies to enhance trust, encourage compliance (Ositashvili, 2024), and ultimately strengthen the relationship between Muzzaki and Zakat institutions. Understanding these determinants can contribute to the development of more effective practices and policies in Zakat management, encourage continued engagement and support from Muzzaki, and advance the field of Islamic finance and charity.

This study is important to reduce the knowledge gap on how the integration of digital technology in zakat management can increase muzzaki loyalty by increasing accountability

and trust. The current digital development can provide great benefits of technology in zakat management with great potential to increase transparency and efficiency, which are the main keys in building muzzaki trust. Several studies say that muzzaki trust significantly influences muzzaki's decision to continue contributing. This study aims to fill the gap by applying a theoretical framework to measure how digital technology can be an effective tool in increasing the accountability of zakat institutions, thereby strengthening muzzaki loyalty. Research (Usman et al., 2020) says that technology integration affects muzzaki perceptions and behavior in the context of Islamic philanthropy and finance.

This study is unique and innovative as it combines several important variables of accountability, digital technology, and trust in the context of zakat management, an issue that is under-explored compared to other Islamic financial sectors.

The implications of the study include enhancing more transparent and accountable zakat practices, which not only enhances muzzaki trust and satisfaction but also strengthens the foundation of Islamic finance as a whole. Thus, this study offers new insights into how technology can be adapted to meet Islamic principles and support inclusive socio-economic development. It also has the potential to provide policy recommendations for zakat institutions and technology developers focused on the Zakat sector.

METHOD

Research Design

This study is a comparative causal study using a cross-sectional design, where data is collected at a certain point in time. This approach allows the study to assess the relationship and influence between independent variables (accountability and digital technology), dependent variables (Muzzaki loyalty), and moderating variables (trust).

Population and Sample

The population in this study are Muzzaki registered with the Indonesian Zakat Initiative (IZI) who are muzzaki. The sample will be selected using a purposive sampling technique, where respondents who have experience using digital platforms to pay zakat will be prioritized. The sample size is determined based on the criteria (Hair et al., 1997), which recommends a minimum of 10 respondents per indicator, with a total of 15 indicators in this research model, so a minimum of 150 respondents.

Data Collection

In this study, data was collected through an online questionnaire or better known as a google form consisting of several questions that will be assessed using a Likert scale of 1-5 points. The questionnaire will include questions regarding respondents' perceptions of accountability, use of digital technology, level of trust in the IZI Institution, and Muzzaki IZI loyalty.

Data Analysis

This study analyzes data using SmartPLS version 3.0 to build an SEM model by testing the established hypotheses. The first stage is to test the measurement model, which includes convergent validity, discriminant validity, and reliability. The second stage is the evaluation of

the structural model to test the path coefficient, direct, indirect, and moderating effects of trust on the relationship between accountability and digital technology and Muzzaki loyalty.

Moderation Test

The interaction between the independent variables and the moderating variables will be tested to see if trust affects the strength or direction of the relationship between accountability and digital technology on Muzzaki loyalty. This will be done by including interaction variables in the SEM model.

Results and Discussion

Accountability is very important to make muzzaki trust the management of zakat management, because there are still many muzzaki who give their zakat directly to mustahik so that it is feared that there will be multiple zakat receipts for mustahik. In Figure 1 below, you can see the outer loading resulting from the distribution of questionnaires conducted by researchers and processed using Smart PLS 3.0

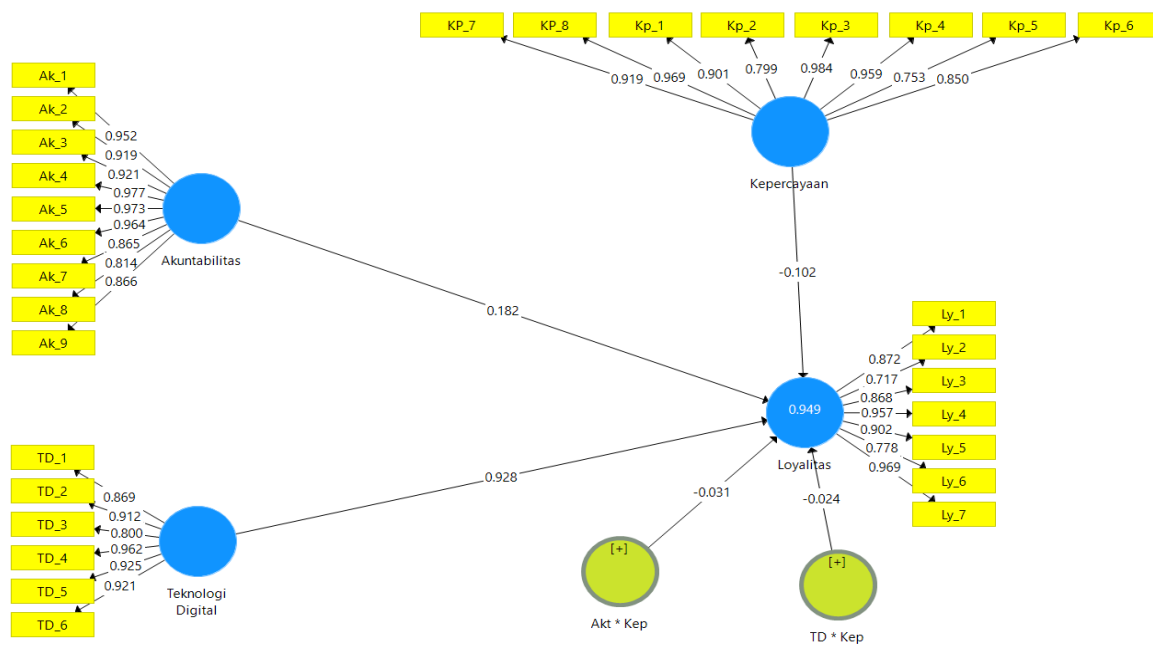


Figure 1. Outer Loading Results

In Figure 1, the outer loading results for each indicator of each variable can be seen, all of which are above 0.7, which means that the results obtained between indicators are good (Olivia, 2021), so that it can be continued to find further data processing results.

To see how much influence the dependent variable has, it can be seen in the R square in table 1 below.

Table 1 : R Square

	R Square	Adjusted R Square
Loyalty	0,949	0,947

The R Square value obtained was 0.949 and the Adjusted R Square was 0.947 for the Loyalty variable, indicating that the model developed in this study was able to explain around 94.9% of the variation in muzzaki loyalty. This value is very high, indicating that the independent variables studied (such as accountability and digital technology) and trust as a moderating variable make a significant contribution in predicting muzzaki loyalty. The Adjusted R Square which is also high indicates that this explanation remains strong even after adjustment for the number of predictors in the model, confirming the statistical reliability of the model in the context analyzed.

The results of this study show very high reliability values for each construct in the study. The Cronbach's Alpha, rho_A, and Composite Reliability values for all constructs are very close to 1.0, indicating very high internal consistency in each construct. The value of accountability has a Cronbach's Alpha of 0.976, rho_A of 0.979, and Composite Reliability of 0.980, indicating that the indicators in the accountability construct are very consistent in measuring the concept.

Average Variance Extracted (AVE) shows how well the indicators in a construct explain the variable. The AVE value for accountability is 0.843, indicating that more than 84% of the variance in the accountability indicators is explained by the construct itself. This confirms strong convergent validity. AVE values above 0.5, as seen in all constructs, indicate that the indicators are more likely to measure the same latent variable than measurement error, which overall indicates good validity and reliability of the measurement model.

The results of this study, the measurement model (outer loading) in this study indicates how well each item (indicator) measures the latent variable represented. The Original Sample Value (O) which is high and close to 1 indicates that the indicators have a strong relationship with their respective latent variables, indicating good convergent validity. After processing with outer loading, the data can be continued to process with inner, to see the influence between variables before and after using the moderating variable. The results can be seen in table 2 below.

Table : 2 Uji t

Information	T statistik	P Values
Accountability -> Loyalty	1,078	0,281
Digital Technology -> Loyalty	4,556	0,000
Trust -> Loyalty	0,585	0,559
Acc * Trust -> Loyalty	0,193	0,847
DT * Trust -> Loyalty	0,155	0,877

In table 2 above, you can see the influence of each variable before and after using the moderation variable on muzzaki trust by looking at the totality of muzzaki. In figure 2 above, it can be seen that the accountability variable has no effect on loyalty because tcount is smaller than ttable. The results of this study are different from the research by Research (Jumriani, 2021) which obtained the results that there is an influence between accountability, service

quality, and Muzzaki trust on Muzzaki loyalty to the Muzaki Management Institute Infaq (LMI) in Surabaya. The research findings emphasize the importance of the role of accountability in fostering Muzzaki loyalty to charitable institutions. Accountability practices in Zakat institutions are very important in building trust and confidence among Muzzaki, influencing their loyalty and commitment to contribute to Zakat funds.

Digital Technology is a significant independent variable in understanding the role of technology in zakat management. This variable covers various aspects of the use of digital technology, such as digital platforms for zakat payments, ease of access, security, and transparency in zakat transactions. Reliable and easy-to-use digital technology is expected to increase the efficiency and effectiveness of zakat management, as well as build muzzaki trust. As one of the important components in the integration of technology in zakat management, this variable functions to measure the impact of technology use on muzzaki satisfaction and loyalty.

Muzzaki loyalty is a dependent variable that plays an important role in assessing the success of zakat institutions in retaining zakat contributors (muzzaki). This variable reflects the loyalty of muzzaki in continuing to contribute through the same zakat institution, which is measured through several indicators such as satisfaction, long-term contribution intentions, and recommendations to other parties. Muzzaki loyalty is influenced by various factors, including the quality of services provided and perceptions of the use of digital technology. By assessing the relationship between digital technology and muzzaki loyalty, this study seeks to provide new insights into how technological innovation can strengthen the relationship between muzzaki and zakat institutions, and encourage the sustainability of zakat contributions in the future.

CONCLUSION

The importance of integrating digital technology in zakat management to improve accountability, transparency, and trust of Muzzaki towards zakat institutions. Accountability not only serves to ensure the proper utilization of funds, but also plays an important role in building trust which can ultimately increase Muzzaki loyalty. With the implementation of reliable and transparent digital technology, zakat institutions can improve the efficiency and effectiveness of zakat management, which in turn strengthens Muzzaki's trust and loyalty towards the institution. Identification of gaps in the literature related to a deeper understanding of the relationship between accountability, digital technology, trust, and Muzzaki loyalty. Although digital technology shows great potential in improving zakat management, further exploration is needed to understand its impact on Muzzaki behavior and trust in the long term. By involving the development of more transparent and accountable zakat practices, and encouraging the implementation of more effective technology in zakat management, which can ultimately strengthen the foundation of Islamic finance and support sustainable socio-economic development.

AUTHOR CONTRIBUTIONS

Hastuti Olivia plays a role in making manuscripts that suit the needs.

Isra Hayati plays a role in processing data

Afandi plays a role in spreading indicators and distributing questionnaires

Daud plays a role as the Head of IZI North Sumatra, providing data Muzzaki

Fawazra plays a role in finding references

CONFLICTS OF INTEREST

The manuscript has not been published elsewhere and is not under consideration by other journals. All authors have approved the review, agree with its submission and declare no conflict of interest on the manuscript.

REFERENCES

- Adiyes Putra, P., Marliyah, M., & Siregar, P. A. (2023). Zakat dan Pajak dalam Perspektif Syariah. *Al-Mutharahah: Jurnal Penelitian Dan Kajian Sosial Keagamaan*, 20(1), 79–92. <https://doi.org/10.46781/al-mutharahah.v20i1.610>
- Aguera, P., Berglund, N., Chinembiri, T., Comminos, A., Gillwald, A., & Govan-Vassen, N. (2020). Paving the way towards digitalising agriculture in South Africa. *Research ICT Africa*.
- Amsari, S., Hayati, I., Affandi, A., & Jf, N. Z. (2023). Pelatihan Fundraising Berbasis Digital Marketing Bagi Amil Untuk Meningkatkan Penghimpunan Zakat, Infak Dan Shodaqoh Pada Lazismu Kabupaten Langkat. *JMM (Jurnal Masyarakat Mandiri)*, 7(5), 4681. <https://doi.org/10.31764/jmm.v7i5.16887>
- Ayuniyyah, Q., Hafidhuddin, D., & Hambari, H. (2020). The Strategies in Strengthening the Role of Zakat Boards and Institutions in Indonesia. *International Journal of Zakat*, 5(3), 73–87.
- Aziz Awang, N. F., Ramli, R., Amir, A. M., Wahid, H., Rahman, S. M. A., & Sulaiman, S. (2023). Thematic Review Paper on Business Zakat from 2015 to 2020. *Economic Affairs (New Delhi)*, 68(2), 1213–1225. <https://doi.org/10.46852/0424-2513.2.2023.27>
- Bodó, B. (2021). Mediated trust: A theoretical framework to address the trustworthiness of technological trust mediators. *New Media & Society*, 23(9), 2668–2690.
- Hadi, R., Shafrani, Y. S., Hilyatin, D. L., & Riyadi, S. (2024). Digital zakat management, transparency in zakat reporting, and the zakat payroll system toward zakat management accountability and its implications on zakat growth acceleration. *International Journal of Data and Network Science*, 8(1), 597–608. <https://doi.org/10.5267/j.ijdns.2023.8.025>
- Hair, J., Hult, G. T. M., Ringle, C., & Sarstedt, M. (1997). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*.
- Hidayati, A., & Tohirin, A. (2019). Performance Measurement System for Zakat Institutions: Integrating Maqashid Sharia and Sharia Enterprises Theory. *International Conference of Zakat*, 291–299. <https://doi.org/10.37706/iconz.2019.199>
- Ikhwandha, M. F., & Hidayati, A. (2019). The influence of accountability, transparency, affective and cognitive trust toward the interest in paying zakat. *Jurnal Akuntansi & Auditing Indonesia*, 23(1), 39–51. <https://doi.org/10.20885/jaai.vol23.iss1.art5>
- Jumriani, J. (2021). Pengaruh akuntabilitas, kualitas pelayanan, kepercayaan muzakki terhadap loyalitas muzakki. *Journal of Islamic Management*, 1(1), 19–29.
- Meerangani, K. A., Sharipp, M. T. M., Hamid, M. F. A., Hashim, S. N. I., P. Rameli, M. F., & Rosele, M. I. (2022). Digitalisation of Zakat Management System in Malaysia: Potential and Challenges. *International Journal of Academic Research in Economics and Management Sciences*, 11(2). <https://doi.org/10.6007/ijarems/v11-i2/13984>
- Mukhibad, H., Fachrurrozie, F., & Nurkhin, A. (2019). Determinants of the intention of muzakki to pay professional zakat. *Share: Jurnal Ekonomi Dan Keuangan Islam*, 8(1), 45–67. <https://doi.org/10.22373/share.v8i1.4573>
- Mutamimah, M., Alifah, S., Gunawan, G., & Adnjani, M. D. (2021). ICT-based collaborative framework for improving the performance of zakat management organisations in

- Indonesia. *Journal of Islamic Accounting and Business Research*, 12(6), 887–903. <https://doi.org/10.1108/JIABR-05-2020-0154>
- Mutmainah, L. (2016). The Influence of Accountability, Transparency, and Responsibility of Zakat Institution on Intention to Pay Zakat. *Global Review of Islamic Economics and Business*, 3(2), 108. <https://doi.org/10.14421/grieb.2015.032-03>
- Nikmatuniayah, N., Marliyati, M., & A, L. M. (2017). Effects of Accounting Information Quality, Accountability, and Transparency on Zakat Acceptance. *Mimbar Jurnal Sosial Dan Pembangunan*, 33(1), 62. <https://doi.org/10.29313/mimbar.v33i1.2029>
- Ositashvili, M. (2024). The Compliance Model as an Instigation for Post-Financial Crisis Efficiency in Corporations. *ESI Preprints*, 20(1).
- Rejab, S. N. M., Wahid, H., & Yaacob, S. E. (2023). The Importance of Accountability in Zakat Institutions. *Business and Management Horizons*, 11(2), 35. <https://doi.org/10.5296/bmh.v11i2.21034>
- Rosman, R., Redzuan, N. H., Ghani, N. L. A., Noordin, N. H., & Shaharuddin, S. S. (2024). Enhancing Shariah Governance Practice: Insights from the Non-profit Organizations in Malaysia. In *AI in Business: Opportunities and Limitations: Volume 1* (pp. 449–460). Springer.
- Sawmar, A. A., & Mohammed, M. O. (2021). Enhancing zakat compliance through good governance: a conceptual framework. *ISRA International Journal of Islamic Finance*, 13(1), 136–154. <https://doi.org/10.1108/IJIF-10-2018-0116>
- Setyadi, B., Sartika, D., & Helmi, S. (2023). The Effect of Competence and Job Satisfaction on Employee Loyalty in the Cement Industry. *Quantitative Economics and Management Studies*, 4(5), 1003–1011.
- Tsalas, N. A., Mahri, A. J. W., & Rosida, R. (2019). Zakat Compliance Behaviour: Good Corporate Governance With Muzakki's Trust Approach (Survey on Muzakki of the National Board of Zakat (BAZNAS) in Garut). *Kne Social Sciences*, 3(13), 796. <https://doi.org/10.18502/kss.v3i13.4248>
- Usman, H., Mulia, D., Chairy, C., & Projo, N. (2020). Integrating trust, religiosity and image into technology acceptance model: the case of the Islamic philanthropy in Indonesia. *Journal of Islamic Marketing, ahead-of-p*. <https://doi.org/10.1108/JIMA-01-2020-0020>
- Utami, P., Suryanto, T., Nasor, M., & Ghofur, R. A. (2020). The Effect Digitalization Zakat Payment Against Potential of Zakat Acceptance in National Amil Zakat Agency. *Iqtishadia*, 13(2), 216. <https://doi.org/10.21043/iqtishadia.v13i2.7809>
- Zubaidah, S., & Afifah, A. (2020). Development of Zakat Management Digitalization in Indonesia. *International Conference of Zakat*, 459–468. <https://doi.org/10.37706/iconz.2020.227>