



## **Bridging the Gap Between Islamic Banking and Social Finance: A Macro-Financial Evaluation of Zakat Governance in Indonesia**

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### **Abstract:**

**Background:** Despite the significant potential of zakat as an instrument of socio-economic redistribution, its formal mobilization remains persistently below capacity in many Muslim-majority countries, including Indonesia. This gap raises critical questions about the extent to which Islamic financial development contributes to philanthropic governance.

**Objective:** This study aims to investigate the macro-financial relationship between Islamic banking performance and formal zakat distribution, focusing on the roles of Islamic financing, depositor trust, and bank profitability in shaping national zakat mobilization.

**Methodology:** Using monthly time-series data from January 2016 to December 2024, this study employs the Autoregressive Distributed Lag (ARDL) bounds testing approach to estimate both short-run and long-run dynamics among the variables.

**Findings:** The results confirm the existence of long-run cointegration. Depositor trust emerges as the most influential determinant, with substantially higher elasticity compared to Islamic financing, indicating that institutional credibility is the primary driver of zakat mobilization. In contrast, bank profitability does not exhibit a statistically significant effect, revealing a structural disconnect between commercial performance and philanthropic outcomes. This finding reflects the voluntary nature of corporate zakat within the current regulatory framework, which limits the transmission of financial gains into social redistribution.

**Conclusion:** This study contributes to the literature by providing novel macro-level time-series evidence on the financial-philanthropic nexus in Islamic finance. It extends the application of Signaling Theory and Stakeholder Theory into the domain of Islamic social finance, offering a new analytical framework to explain how institutional trust mediates the relationship between financial intermediation and zakat governance. The study also provides a replicable empirical model for future research across Muslim-majority economies.

**Practical Implications:** The findings highlight the need for coordinated institutional reform. Zakat authorities should strengthen transparency and accountability through integrated digital reporting systems to enhance public trust. Financial regulators are encouraged to formalize corporate zakat through mandatory disclosure frameworks and targeted fiscal incentives, thereby aligning banking performance with philanthropic responsibilities. In parallel, Islamic banks should incorporate zakat governance into their strategic and sustainability frameworks, fostering closer collaboration with zakat institutions to optimize the effectiveness of formal zakat distribution.

**Keywords:** Islamic Banking; Zakat Distribution; Depositor Trust; ARDL; Zakat Governance

## Introduction

Philanthropy has long played a central role in Islamic economic life,<sup>1</sup> functioning as a redistributive mechanism<sup>2</sup> that supports poverty alleviation, social justice, and inclusive development.<sup>3</sup> With the growth of Islamic banking, zakat has shifted from an individual obligation to a corporate responsibility. This transition, grounded in *fiqh al-Mu'āmalah*, introduces governance challenges, as Islamic banks now need to balance social obligations with profit-making goals.<sup>4</sup> Among the various forms of Islamic social finance, zakat stands out as a mandatory act of wealth purification.<sup>5</sup> and an institutionalized mechanism for promoting social equity.<sup>6</sup>

In Muslim-majority countries, formal zakat institutions serve as the backbone of this redistributive function,<sup>7</sup> connecting faith-based obligations with national welfare objectives.<sup>8</sup> In Indonesia, as the world's largest Muslim-majority country, this role has become increasingly significant since the enactment of Law No. 23/2011 on Zakat Management,<sup>9</sup> which established the National Board of Zakat (BAZNAS) as a state-recognized institution.<sup>10</sup> However, profitability does not always correlate with zakat distribution. It

could be due to the voluntary nature of corporate zakat in Indonesia, where companies may prioritize CSR over zakat, as many Islamic banks treat zakat as a discretionary CSR component rather than a mandatory religious obligation.<sup>11</sup>

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<sup>1</sup>Hichem Hamza, "Role of Zakāt in Building up a Sustainable Investment", *Islamic Finance and Sustainable Development: A Global Framework for Achieving Sustainable Impact Finance*, ed. Mohd Ma'Sum Billah, Rusni Hassan, Razali Haron & Nor Razinah Mohd Zain, (London: Routledge, 2024), 85–96.

<sup>2</sup> Mohd Rodzi Embong, Roshaiza Taha, & Mohd Nazli Mohd Nor, "Role of Zakat to Eradicate Poverty in Malaysia", *Jurnal Pengurusan*, Vol. 39 (2013), 141–150. (2021).

<sup>3</sup> Yasir Haji Othman, Mohd Shukri Sulaiman Yusuff, & Amr Moawad Khalil, "Analyzing Zakat as a Social Finance Instrument to Help Achieve the Sustainable Development Goals in Kedah [Análisis del Zakat como Instrumento de Financiación Social para Contribuir a la Consecución de los Objetivos de Desarrollo Sostenible en Kedah]," *Estudios de Economía Aplicada* 39, no. 10 (2021), 1–22.

<sup>4</sup> Mohamed Asmy Bin Mohd Ali, Mohd Shukri Shuib, & Aminudin Mohd Nor, "Zakat as a Corporate Social Responsibility: How Does It Affect the Financial Performance of Islamic Banks?" *Jordan Journal of Business Administration*, 19(2) (2023), 267–288.

<sup>5</sup> Ahmed Imran Hunjra, Murugesh Arunachalam, & Mahnoor Hanif, "The Role of Islamic Social Finance in Poverty Eradication", *Islamic Finance in the Modern Era: Digitalization, FinTech and Social Finance*, ed. Husain Mohi-ud-Din Qadri & M. Ishaq Bhatti, (London: Routledge, 2024), 26–39.

<sup>6</sup> Adel Sarea, "Impact of Zakat on Sustainable Economic Development", *Advances in Electronic Government, Digital Divide, and Regional Development*, (Hershey, PA: IGI Global, 2021).

<sup>7</sup> Mohd Zaidi Daud, Mohd Shahid Mohd Noh, Dwi Fidayanti, & Mohd Norhusairi Mat Hussin, "Empowering Futures: Unveiling Zakat's Vital Role in Economic Development and Legal Framework in Malaysia," *Jurisdictie: Jurnal Hukum dan Syariah* 16, no. 1 (2025), 235–274.

<sup>8</sup> Nur Rizqi Febriandika, Dilla Gading Kusuma, & Yayuli Yayuli, "Zakat Compliance Behavior in Formal Zakat Institutions: An Integration Model of Religiosity, Trust, Credibility, and Accountability," *International Journal of Advanced and Applied Sciences* 10, no. 6 (2023), 187–194.

<sup>9</sup> Republik Indonesia, *Undang-Undang Republik Indonesia Nomor 23 Tahun 2011 tentang Pengelolaan Zakat* (Jakarta: DPR RI, 2011). Diakses dari Peraturan BPK.

<sup>10</sup> Indah Sulistyowati, "Synthesizing National Zakat Index Application in Indonesia," *Journal of Islamic Economics Lariba* 4, no. 1 (2018). Also read Noor Arifin & Aan Zainul Anwar, "The Improvement Model of Microenterprises of Post-Disaster Through Empowerment of Productive Zakat," *Journal of Governance & Regulation* 10, no. 4 (2021), 156–163

<sup>11</sup> Mohamed Asmy Bin Mohd Ali, Mohd Shukri Shuib, & Aminudin Mohd Nor, "Zakat as a Corporate Social Responsibility: How Does It Affect the Financial Performance of Islamic Banks?" *Jordan Journal of Business Administration* 19, no. 2 (2023), 267–288.

Indonesia has experienced notable growth in formal zakat collection over the last few decades, reaching approximately IDR 41 trillion in 2024.<sup>12</sup> a substantial increase from IDR 8.1 trillion in 2016.<sup>13</sup> Projections by BAZNAS indicate that this figure is expected to grow further in 2025, with the government targeting a 10% annual increase.<sup>14</sup> Yet, this figure still accounts for less than 13 percent of the total zakat potential, estimated at around IDR 327 trillion, illustrating a persistent gap between potential and realization that continues to challenge the effectiveness of formal philanthropic channels in the country.<sup>15</sup>

As zakat institutions continue to develop, the Islamic banking sector in Indonesia has also experienced swift growth,<sup>16</sup> fostering a closely connected network between financial activities and societal well-being.<sup>17</sup> To clarify the relationship between key macro-financial variables, such as Islamic financing, depositor trust, and zakat distribution, a conceptual framework could be introduced. This framework will help visualize how financial intermediation and public confidence directly affect zakat mobilization and distribution.

Total Islamic financing continued its upward trajectory, reaching approximately IDR 645 trillion by mid-2025, while third-party funds (DPK) surpassed IDR 750 trillion in the same period,<sup>18</sup> supported by rising depositor confidence and continuous asset growth averaging 13 percent annually. According to the latest report by *Otoritas Jasa Keuangan* (OJK), Islamic banking assets have grown by approximately 12-15% year-on-year through 2025,<sup>19</sup> demonstrating not only the strengthening of Islamic financial institutions but also the growing integration of Islamic economic activities within Indonesia's broader financial landscape.

This expansion raises an important question: Does the financial strength of Islamic banks contribute to the growth of formal philanthropy, particularly national zakat distribution?<sup>20</sup> This question becomes more relevant as the boundaries between profit-driven financial operations and socially-focused Islamic philanthropy continue to blur in contemporary Islamic economic discourse.<sup>21</sup>

This study draws upon two complementary theoretical lenses to address this question: Stakeholder Theory and Signaling Theory. Stakeholder Theory, originally proposed by Freeman, posits that corporations have moral and ethical obligations not

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<sup>12</sup> Badan Amil Zakat Nasional (BAZNAS), Laporan Pengelolaan Zakat, Infak, Sedekah dan Dana Sosial Keagamaan Lainnya Nasional Tahun 2024 (Jakarta: BAZNAS, 2024), 12.

<sup>13</sup> Badan Amil Zakat Nasional (BAZNAS), Statistik Zakat Nasional 2016 (Jakarta: BAZNAS, 2017), 8.

<sup>14</sup> Ministry of Religious Affairs, "Govt Targets to Raise Zakat Collection by 10% in 2025, with Zakat Potential Projected to Cross Rp327 Trillion," ANTARA News, 3 Maret 2025.

<sup>15</sup> Kiki Yuliana Rahayu, "Zakat Potential of IDR 327 Trillion, Only IDR 41 Trillion Collected," Kompas, 3 Maret 2025.

<sup>16</sup> Nour Kailani & Mohamed Slama, "Accelerating Islamic Charities in Indonesia: Zakat, Sedekah and the Immediacy of Social Media," *South East Asia Research* 28, no. 1 (2020), 70–86.

<sup>17</sup> Hanafi Latief, "Health Provision for the Poor: Islamic Aid and the Rise of Charitable Clinics in Indonesia," *South East Asia Research* 18, no. 3 (2010), 503–553.

<sup>18</sup> Otoritas Jasa Keuangan, "Sharia Banking Positive Performance in 2024," Press Release, 21 Februari 2025.

<sup>19</sup> Otoritas Jasa Keuangan, Statistik Perbankan Syariah – Desember 2024 (Jakarta: Departemen Perbankan Syariah OJK, 2025).

<sup>20</sup> Naznin Akther, Zabeda Abdul Hamid, & Nurita Binti Juhdi, "Bibliometric Insights into Human Resource Analytics: Analyzing the Growth and Impact of Research," *Journal of Economic Cooperation and Development* 45, no. 4 (2024), 271–300.

<sup>21</sup> Muhammad Rabi Danlami, Muhamad Abduh, & Lutfi Abdul Razak, "Social Finance, Institutional Quality and Stability of Islamic Banks: Evidence from Four Countries," *International Journal of Social Economics* 50, no. 8 (2023), 1186–1216.

only to shareholders but also to a broader range of stakeholders, including society at large.<sup>22</sup> In the context of Islamic banking, this theory acquires a distinctive normative dimension: Sharia-compliant institutions are inherently bound by *maqāsid al-shari'ah* to serve the welfare of the *ummah*, transforming zakat distribution from a discretionary CSR activity into an ethical and religious obligation. Islamic banks, therefore, function as stewards of communal wealth, accountable to depositors, regulators, and society for the redistributive use of financial surpluses through formal philanthropic channels such as BAZNAS and LAZ.<sup>23</sup>

Complementing this perspective, Signaling Theory, developed by Spence, explains how organizations communicate unobservable qualities (such as credibility, ethical commitment, and financial soundness) to external stakeholders through observable indicators.<sup>24</sup> In Islamic banking, key financial aggregates such as third-party funds (DPK), financing volume, and profitability serve as institutional signals that shape public perceptions of trustworthiness. When Islamic banks demonstrate financial strength and ethical compliance, they send positive signals not only about their operational reliability but also about the broader credibility of the formal Islamic financial ecosystem, including state-recognized zakat institutions.<sup>25</sup> This signaling effect can encourage Muslim depositors and corporate clients to channel their philanthropic obligations through formal mechanisms rather than informal giving, thereby strengthening the integration between Islamic banking and formal zakat governance.<sup>26</sup>

Together, Stakeholder Theory and Signaling Theory provide a robust theoretical foundation for understanding why and how the financial performance of Islamic banks may translate into measurable improvements in national zakat distribution. The former explains the normative motivation for Islamic banks to engage in formal philanthropy, while the latter explains the behavioral mechanism through which financial strength influences public trust and compliance with formal zakat institutions.

Theoretically, there are several mechanisms through which the financial aggregates of Islamic banks, such as financing volume,<sup>27</sup> depositor funds,<sup>28</sup> and profitability,<sup>29</sup> could influence national zakat outcomes. One possible channel is mobilization, in which Islamic banks act as financial intermediaries that collect

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<sup>22</sup> R. Edward Freeman, *Strategic Management: A Stakeholder Approach* (Boston: Pitman, 1984).

<sup>23</sup> Asyraf Wajdi Dusuki, "What Does Islam Say About Corporate Social Responsibility?" *Review of Islamic Economics* 12, no. 1 (2008), 5–28.

<sup>24</sup> Michael Spence, "Job Market Signaling," *Quarterly Journal of Economics* 87, no. 3 (1973), 355–374.

<sup>25</sup> Aatur Rahman Belal, Omneya H. Abdelsalam, & Sardar Sadek Nizamee, "Ethical Reporting in Islami Bank Bangladesh Limited (1983–2010)," *Journal of Business Ethics* 129, no. 4 (2015), 769–784.

<sup>26</sup> Brian L. Connelly, S. Trevis Certo, R. Duane Ireland, & Christopher R. Reutzell, "Signaling Theory: A Review and Assessment," *Journal of Management* 37, no. 1 (2011), 39–67.

<sup>27</sup> Arim Nasim, Juliana Juliana, Hafiz Ruzain bin Syamsuri, Aam Selamat Rusydiana, Iman Sidik Nusannas, & Muhamad Abduh, "The Impact of the Islamic Performance Index on the Financial Performance of Indonesian Islamic Banks," *Journal of Islamic Accounting and Business Research* 16, no. 1 (2025), 45–62.

<sup>28</sup> Mohammad Kabir Hassan, Md. Zahid Hossain Khan, Mohammad Anwarul Miah, & Md. Kamrul Islam, "The National-Level Potential of Zakat and Its Integration into the Fiscal Framework: Sector-Specific Insights from the Economy of Bangladesh," *International Journal of Islamic and Middle Eastern Finance and Management* 17, no. 5 (2024), 865–884.

<sup>29</sup> Eissa A. Al-Homaidi, Ebrahim Mohammed Al-Matari, Suhaib Anagreh, Mosab I. Tabash, & Nabil Ahmed Mareai Senan, "The Relationship Between Zakat Disclosures and Islamic Banking Performance: Evidence from Yemen," *Banks and Bank Systems* 16, no. 1 (2021), 52–61.

deposits<sup>30</sup> and extend financing to productive sectors,<sup>31</sup> thereby improving liquidity and expanding corporate activities.<sup>32</sup> A financially stronger bank possesses greater capacity to allocate corporate social responsibility budgets, pay corporate zakat, and engage in partnerships with official zakat agencies such as BAZNAS or licensed Lembaga Amil Zakat (LAZ).<sup>33</sup> As banks' financing and profitability increase, their institutional capability to support and collaborate with formal zakat entities also expands,<sup>34</sup> indirectly strengthening the infrastructure for zakat mobilization and distribution.<sup>35</sup>

Another pathway operates through signaling and trust. In the context of Islamic finance, bank performance reflects not only profitability<sup>36</sup> but also ethical compliance<sup>37</sup> and institutional credibility.<sup>38</sup> High deposit growth and robust profitability send positive signals to the public about the trustworthiness of Islamic financial institutions.<sup>39</sup> This enhanced confidence may extend beyond banking behavior to shape how Muslims perceive and engage with formal religious institutions, including zakat agencies.<sup>40</sup> When individuals trust the broader Islamic financial ecosystem, they are more likely to channel their philanthropic obligations through formal, regulated mechanisms rather than informal or personal giving.<sup>41</sup> In this sense,

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<sup>30</sup> Shakeel Riaz, Talat Hussain, & Noman Arshed, "Managing Patronization Portfolio for Liquidity Risk Management in Islamic Banks," *Journal of Islamic Accounting and Business Research* 16, no. 2 (2025), 210–225.

<sup>31</sup> Fatemah Al-Doseri & Fairouz M. Aldhmour, "The Role of Corporate Social Responsibility from an Islamic Economy Perspective in Times of Crisis: Literature Review Study," in *The AI Revolution: Driving Business Innovation and Research*, vol. 545, ed. M. I. Khalaf & A. M. Al-Kwafi (Switzerland: Springer Nature, 2024), 803–817.

<sup>32</sup> Hendra Wahyudi, Indah Wisandani, Cahya Saputra, Wulan R. Lestari, & Siti M. Leny, "Digitalisation of Islamic Finance in the Era of Industrial Revolution 5.0: The Contribution of Crowdfunding and E-Wakaf to Islamic Fintech," *International Journal of Economics and Financial Issues* 15, no. 1 (2025), 90–101

<sup>33</sup> Auliyah, Robiatul & Basuki, Basuki. Ethical Values Reflected on Zakat and CSR: Indonesian Sharia Banking Financial Performance. *Journal of Asian Finance, Economics and Business*, 8, no 1, (2021), 225–235.

<sup>34</sup> Mutamimah Mutamimah, Suryani Alifah, Gunawan Gunawan, & Made Dwi Adnjani, "ICT-based Collaborative Framework for Improving the Performance of Zakat Management Organisations in Indonesia," *Journal of Islamic Accounting and Business Research* 12, no. 3 (2021), 456–472.

<sup>35</sup> Mohammad Saleh, Ahmad B. Sulistiyo, Nor Hisamuddin, & Ahmad Roziq, "Reconstruction of Profit Sharing Scheme and Cooperation Model between Sharia Rural Bank and Zakat Management Organization for Micro Enterprises Financing in Indonesia," *International Journal of Scientific and Technology Research* 8, no. 12 (2019), 1774–1778.

<sup>36</sup> Ahmad Nurkhin, Kusmuriyanto, Widiyanto Widiyanto, Anna Kania Widiatami & Ida Nur Aeni, "Do Corporate Governance Implementation and Bank Characteristics Improve the Performance of Indonesian Islamic Banking? Before-COVID-19 Pandemic Analysis," *Banks and Bank Systems* 18, no. 3 (2023), 126–135.

<sup>37</sup> Aatur Rahman Belal, Omneya H. Abdelsalam, & Sardar Sadek Nizamee, "Ethical Reporting in Islami Bank Bangladesh Limited (1983–2010)," *Journal of Business Ethics* 129, no. 4 (2015), 769–784.

<sup>38</sup> Mohammad Ashraf Ferdous Chowdhury & Mohamed Eskandar Shah Mohd Rasid, "The Determinants of the Profitability of Islamic Banks: A Cross-Sectional Study from Asia and Africa," *International Journal of Business and Globalisation* 15, no. 3 (2015), 375–388.

<sup>39</sup> Shakeel Riaz, Talat Hussain, & Noman Arshed, "Managing Patronization Portfolio for Liquidity Risk Management in Islamic Banks," *Journal of Islamic Accounting and Business Research* 16, no. 2 (2025), 210–225.

<sup>40</sup> Anas El Melki & Hejra Ben Salah Saidi, "Ethical and Socially Responsible Investments in the Islamic Banking Firms: Heart, Mind, and Money: Religious Beliefs and Financial Decision-Making in the Participatory Financing Contracts: Charitable Donation Announcement Effect on Agents' Level of Effort and Commitment," dalam *Green Finance Instruments, FinTech, and Investment Strategies*, ed. N. Naifar (Cham: Springer, 2023), 81–95.

<sup>41</sup> Nur Rizqi Febriandika, Dilla Gading Kusuma, & Yayuli Yayuli, "Zakat Compliance Behavior in Formal Zakat Institutions: An Integration Model of Religiosity, Trust, Credibility, and Accountability," *International Journal of Advanced and Applied Sciences* 10, no. 6 (2023), 187–194.

the strength of the Islamic banking sector can reinforce public trust and legitimacy in the formal zakat system.<sup>42</sup>

The third mechanism is embedded in the broader Islamic economic ecosystem. The expansion of Islamic financing fosters the growth of Sharia-compliant enterprises,<sup>43</sup> and economic actors who are themselves subject to zakat obligations.<sup>44</sup> As the scale of Islamic economic participation widens, the potential for corporate zakat contributions increases,<sup>45</sup> and formal linkages between finance and philanthropy become more pronounced.<sup>46</sup> Thus, financial strength not only supports banks' operational capacity but also broadens the network of formal zakat payers, strengthening the institutional interdependence between Islamic finance and social redistribution.

Despite these theoretical linkages, empirical evidence on the relationship between Islamic financial aggregates and national zakat distribution remains scarce. Prior research has predominantly focused on behavioral or micro-level determinants of zakat compliance, such as religiosity,<sup>47</sup> social influence,<sup>48</sup> and institutional trust,<sup>49</sup> without sufficiently addressing macro-financial drivers.<sup>50</sup> Study by Alhadadi, for instance, highlights the role of religious commitment and perceived transparency in encouraging zakat payment,<sup>51</sup> while Asongu & Nwachukwu emphasize the potential of Islamic finance in fostering inclusive growth.<sup>52</sup> However, the extent to which macro indicators like Islamic financing, depositor trust, and bank profitability translate into tangible increases in formal zakat distribution has not been rigorously tested using

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<sup>42</sup> Muhammad Rabiul Danlami, Muhamad Abduh, & Lutfi Abduemphasizel Razak, "Social Finance, Institutional Quality and Stability of Islamic Banks: Evidence from Four Countries," *International Journal of Social Economics* 50, no. 8 (2023), 1186–1216.

<sup>43</sup> Ahmad M. Noor & Mohamed N. Haron, "Imposing Zakat on Legal Entities and Its Applications in Islamic Financial Institutions," *Arab Law Quarterly* 27, no. 4 (2013), 344–356.

<sup>44</sup> Indah Wahyuningsih & Muhammad S. Nurzaman, "Islamic Financial Instruments and Economic Growth: An Evidence from Indonesia," in *Proceedings of the 2020 6th IEEE International Conference on Information Management (ICIM)*, IEEE. (2020), 244–668.

<sup>45</sup> Mohamed Asmy Bin Mohd Ali, Mohd Shukri Shuib, & Aminudin Mohd Nor, "Zakat as a Corporate Social Responsibility: How Does It Affect the Financial Performance of Islamic Banks?" *Jordan Journal of Business Administration* 19, no. 2 (2023), 267–288.

<sup>46</sup> Rosman Rosman, Rozilah Haron, & Nor Bahiyah Muhammad Othman, "The Impact of Zakāt Contribution on the Financial Performance of Islamic Banks in Malaysia," *Al-Shajarah* 24, no. 2 (2019), 153–178, Special Issue on Islamic Banking and Finance, 27–46, International Islamic University Malaysia.

<sup>47</sup> Saeed Awadh Bin-Nashwan, "Beyond Complexity: Do Alms Tax (Zakat) Law Intricacies Justify Non-Compliance Behaviour?" *Journal of Financial Regulation and Compliance* (Advance online publication, 2025).

<sup>48</sup> Saidatul Nurul Hidayah Jannatun Naim Nor-Ahmad, Aryati Juliana Sulaiman, Rusniza Abdul Rahman, Nor Atikah Shafai, & Mohd Farihal Osman, "Unveiling Business Zakat Compliance: A Systematic Review of Determinants and Influential Factors," *Indian Journal of Information Sources and Services* 15, no. 1 (2025), 378–387.

<sup>49</sup> Abdulrahman A. Shikur, Hadi Aslan, & Mohammad Z. Fodol, "Factors Influencing Zakat Payment among Ethiopian Muslims: A PLS-SEM Analysis," *International Journal of Islamic and Middle Eastern Finance and Management* 18, no. 2 (2025).

<sup>50</sup> Evriyenni Evriyenni, Heru Fahlevi, Mirna Indriani, & Muhammad Yasir Yusuf, "Exploring Factors Influencing Zakat Compliance in Aceh: The Role of Institutional Trust and Religious Commitment," *Jurnal Ilmiah Peuradeun* 13, no. 2 (2025), 1123–1152.

<sup>51</sup> Abdullah Alhadadi, "Is Earnings Management Associated with Corporate Social Responsibility? Evidence from Zakat Environment," *Journal of Islamic Accounting and Business Research* (2025).

<sup>52</sup> Simplice A. Asongu dan Jacinta C. Nwachukwu, "Recent Finance Advances in Information Technology for Inclusive Development: A Systematic Review," *NETNOMICS: Economic Research and Electronic Networking* 19, no. 1 (2018), 65–93.

time-series econometric approaches.<sup>53</sup> This research gap is especially significant in Indonesia, where the presence of a strong Islamic banking sector and an underperforming zakat collection system creates a paradox that requires empirical investigation.

Against this background, this study aims to achieve three objectives. First, it examines the long-run relationship between Islamic financing, depositor trust, bank profitability, and national zakat distribution in Indonesia. Second, it analyzes the short-run dynamics and adjustment mechanisms linking Islamic banking performance to formal philanthropic outcomes. Third, it identifies which financial indicators most significantly contribute to zakat mobilization, providing empirical evidence to strengthen the integration of Islamic banking and formal zakat governance. To address these objectives, this study uses monthly data from January 2016 to December 2024 and employs the Autoregressive Distributed Lag (ARDL) bounds testing approach. This method is appropriate because it allows the estimation of both short-run and long-run relationships among variables with mixed orders of integration.

This study contributes to the literature on Islamic social finance by providing macro-financial evidence on the linkage between Islamic banking performance and formal philanthropic distribution in Indonesia. It also offers practical implications for zakat governance by highlighting the importance of financing expansion, depositor confidence, and institutional collaboration in strengthening formal zakat mobilization.

## **Research Method**

### **Research Design and Data**

This study adopts a quantitative time-series design to examine whether the financial strength of Islamic banks drives formal philanthropy in Indonesia. The analysis explores the dynamic relationships among Islamic financing, depositor trust, bank profitability, and national zakat distribution, treating Islamic financing, depositor trust, and bank profitability as independent variables and national zakat distribution as the dependent variable, using monthly data from January 2016 to December 2024, yielding 108 observations.

Although the research was conducted in 2025, data from 2025 were excluded due to methodological considerations. First, official monthly statistics on zakat distribution (published by BAZNAS) and Islamic banking indicators (published by OJK) are released with a three- to six-month lag and are subsequently revised during audit processes. Including provisional 2025 data would introduce measurement error and compromise internal validity. Second, the 108-month sample exceeds the minimum threshold recommended for ARDL estimation. Pesaran, Shin, and Smith suggest at least 80 observations for reliable bounds testing, while Narayan demonstrates that small-sample ARDL models perform well with 30–80 observations.<sup>54</sup> Third, ending the sample at December 2024 ensures temporal consistency with the consolidated effects of Indonesia's zakat governance framework

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<sup>53</sup> Simplice A. Asongu & Jacinta C. Nwachukwu, "Recent Finance Advances in Information Technology for Inclusive Development: A Systematic Review," *NETNOMICS: Economic Research and Electronic Networking* 19, no. 1–2 (2018), 1–37.

<sup>54</sup> Paruky K. Narayan, "The Saving and Investment Nexus for China: Evidence from Cointegration Tests," *Applied Economics* 37, no. 17 (2005), 1979–1990.

under Law No. 23/2011 and the OJK Roadmap for Islamic Finance Development (2024–2027).

Authors from reliable secondary sources obtained the data. Figures for Islamic financing, depositor trust, and bank profitability were collected from the Financial Services Authority (OJK) and Bank Indonesia. At the same time, data for national zakat distribution were sourced from the National Board of Zakat (BAZNAS). All monetary variables were converted into natural logarithms (LN) to stabilize variance, reduce heteroskedasticity, and allow for elasticity interpretation, consistent with standard econometric practice.<sup>55</sup> The ROA variable remained in its percentage form, as it represents a ratio measure.

To clarify the operational definitions, measurement units, and expected relationships, Table 1 summarizes the variables employed in this study.

**Table 1.** Variable Definition and Measurement

Variable	Code	Description	Measurement	Expected Sign
National Zakat Distribution	Y	Total national zakat, infak, and sadaqah distributed by BAZNAS (proxy for formal philanthropy)	Billion Rupiah (log)	–
Islamic Financing	X <sub>1</sub>	Total Islamic financing disbursed by Islamic banks	Trillion Rupiah (log)	+
Depositor Trust	X <sub>2</sub>	Third-party funds (DPK) mobilized by Islamic banks, representing depositor confidence	Trillion Rupiah (log)	+
Bank Profitability	X <sub>3</sub>	Return on Assets (ROA) of Islamic commercial banks	Percentage (%)	±

### Model Specification and Estimation Strategy

The empirical model employs the Autoregressive Distributed Lag (ARDL) framework developed by Pesaran, Shin, and Smith.<sup>56</sup> The ARDL approach was selected over alternative methods such as the Vector Error Correction Model (VECM) or Ordinary Least Squares (OLS) for the following reasons:

First, ARDL is appropriate when variables are integrated of mixed orders, I(0) and I(1), but not I(2), a condition common in financial and philanthropic time-series data. Unlike VECM, which requires all variables to be I(1), ARDL accommodates mixed integration without necessitating pre-testing and differencing that may lose long-run information. Second, ARDL allows for the simultaneous estimation of short-run dynamics and long-run equilibrium relationships within a single reduced-form equation, providing more efficient estimates than two-step methods. Third, ARDL performs well in small to moderate sample sizes, making it particularly suitable for the 108-month dataset employed in this study, whereas VECM typically requires larger samples for reliable estimation. Fourth, the ARDL bounds testing approach offers

<sup>55</sup> Christopher F. Baum, *An Introduction to Modern Econometrics Using Stata* (College Station, TX: Stata Press, 2006), 158.

<sup>56</sup> M. Hashem Pesaran, Yongcheol Shin, & Richard J. Smith, "Bounds Testing Approaches to the Analysis of Level Relationships," *Journal of Applied Econometrics* 16, no. 3 (2001), 289–326.

robust inference even when regressors are endogenous, a plausible concern given the potential feedback between banking performance and zakat distribution.

The general functional form of the model is expressed as:

$$Y_t = f(X1_t, X2_t, X3_t)$$

The ARDL representation is specified as:

$$\Delta Y_t = \alpha_0 + \sum_{i=1}^p \beta_i \Delta Y_{t-i} + \sum_{j=0}^{q_1} \gamma_{1j} \Delta X_{1,t-j} + \sum_{k=0}^{q_2} \gamma_{2k} \Delta X_{2,t-k} + \sum_{l=0}^{q_3} \gamma_{3l} \Delta X_{3,t-l} + \lambda_1 Y_{t-1} + \lambda_2 X_{1,t-1} + \lambda_3 X_{2,t-1} + \lambda_4 X_{3,t-1} + \varepsilon_t$$

Where:

- $Y_t$  denotes national zakat distribution (in natural logarithms),
- $\beta_i$  represents short-run dynamic coefficients for the lagged dependent variable,
- $\gamma_{1j}, \gamma_{2k}, \gamma_{3l}$  denote short-run dynamic coefficients for  $X_1, X_2,$  and  $X_3$  respectively,
- $X_1, X_2, X_3$  are representing Islamic financing (log), depositor trust (log), and bank profitability (ROA in percentage), respectively,
- $\Delta$  denotes the first-difference operator,
- $p$  is the optimal lag order for  $Y_t$ , selected by AIC,
- $q_1, q_2, q_3$  are the optimal lag orders for  $X_1, X_2,$  and  $X_3$  respectively, selected by AIC,
- $\lambda_1$  is the long-run coefficient,
- $\lambda_2, \lambda_3, \lambda_4$  indicate the long-run level coefficients for  $X_{1,t-1}, X_{2,t-1},$  and  $X_{3,t-1}$  respectively,
- $\varepsilon_t$  is the white noise error term with zero mean and constant variance.

### Econometric Strategy

The estimation strategy follows a rigorous, sequential approach to ensure the validity and robustness of the empirical findings.

All variables were first subjected to stationarity tests using the Augmented Dickey–Fuller (ADF) test to confirm that none is integrated of order 2 (I(2), which would invalidate the ARDL bounds testing framework. The test results indicated that some variables were stationary at level I(0). In contrast, others became stationary after first differencing, I(1), thereby validating the appropriateness of the ARDL approach for this dataset.

Following the stationarity assessment, the optimal lag length for the ARDL model was determined using the Akaike Information Criterion (AIC). AIC was preferred over alternative criteria such as the Schwarz Bayesian Criterion (SBC) because it balances model fit and parsimony while tending to select more flexible lag structures that effectively capture the dynamic adjustments inherent in the data.<sup>57</sup>

With the lag structure established, the existence of a long-run cointegrating relationship among the variables was formally tested through the Bounds Testing Approach developed by Pesaran, Shin, and Smith.<sup>58</sup> The null hypothesis of no cointegration was evaluated using the F-statistic, and the computed value exceeded the upper bound critical value at the 1% significance level. This result provided strong evidence of a stable long-run equilibrium relationship among national zakat distribution, Islamic financing, depositor trust, and bank profitability.

<sup>57</sup> Helmut Lütkepohl, *New Introduction to Multiple Time Series Analysis* (Berlin: Springer, 2005), 146.

<sup>58</sup> M. Hashem Pesaran, Yongcheol Shin, & Richard J. Smith, “Bounds Testing Approaches to the Analysis of Level Relationships,” *Journal of Applied Econometrics* 16, no. 3 (2001), 289–326.

After confirming cointegration, the long-run coefficients and short-run dynamics were estimated using the ARDL model. The Error Correction Model (ECM) was subsequently derived to capture the speed and magnitude of short-run adjustments toward the long-run equilibrium. The estimated long-run relationship is specified as:

$$EC_{t-1} = Y_{t-1} - [0.0852 X1_{t-1} + 2.5309 X2_{t-1} - 0.013357 X3 X3_{t-1} - 81.9978]$$

This specification captures both short-term adjustment mechanisms and long-run equilibrium interactions among financial and philanthropic indicators, providing a comprehensive understanding of the dynamic linkages between Islamic banking performance and formal zakat distribution in Indonesia.

To validate the robustness and reliability of the ARDL estimates, a comprehensive battery of diagnostic and stability tests was conducted. The Breusch–Godfrey LM test confirmed the absence of serial correlation, the Breusch–Pagan–Godfrey test indicated homoscedastic residuals, and the Jarque–Bera test showed that residuals are normally distributed, thereby validating standard inference procedures. The Ramsey RESET test confirmed correct model specification, with no evidence of omitted variables or functional form misspecification. Finally, the CUSUM and CUSUMSQ tests demonstrated parameter stability across the entire sample period, with recursive residuals remaining within the 5% critical bounds, confirming the absence of structural breaks. Collectively, these results ensure that the model is well-specified, stable, and suitable for drawing valid inferences about the relationship between Islamic banking performance and formal zakat distribution in Indonesia.

### **Treatment of COVID-19 Period**

The sample period (2016–2024) encompasses the COVID-19 pandemic (2020–2021), which potentially introduced structural disturbances in both Islamic banking operations and zakat collection patterns. However, the study did not employ a dummy variable for the pandemic period. The ARDL-ECM framework inherently accounts for short-run shocks through its error correction mechanism, allowing transitory disturbances to be absorbed within the model's dynamic adjustment process. Formal stability testing using the CUSUM and CUSUMSQ tests confirmed the absence of structural breaks, with recursive residuals remaining within the 5% critical bounds throughout the sample period. Moreover, while zakat collection experienced temporary fluctuations during 2020–2021, the long-run cointegrating relationship remained stable, as evidenced by robust bounds test results. Sensitivity analysis across different sub-sample periods, including pre-pandemic (2016–2019), pandemic (2020–2021), and post-pandemic (2022–2024) windows, confirmed that the core findings remained consistent, validating the model's specification without ad hoc dummy adjustments.

### **Treatment of Seasonal Effects**

Monthly zakat data exhibit pronounced seasonal patterns, particularly during Ramadan, when contributions surge due to heightened religious observance and *zakat al-fitr* obligations. Unlike conventional practice, this study retains the seasonal variation rather than applying ex-ante adjustment. The seasonal spikes represent genuine behavioral and religious phenomena intrinsic to Islamic philanthropy; removing them would obscure economically meaningful patterns central to understanding formal zakat mobilization. Moreover, the ARDL framework's

flexible lag structure endogenously captures periodic fluctuations through lagged variables, eliminating the need for explicit deseasonalization. Retaining seasonality also provides policy-relevant insights for BAZNAS and other institutions that must plan for seasonal liquidity management and distribution strategies. Residual diagnostics, including the Breusch–Godfrey LM test and visual inspection of residual plots, confirmed that the model adequately captures seasonal dynamics without leaving systematic patterns, thereby validating the specification's statistical integrity and substantive interpretability.

### **Justification for Monthly Data**

The use of monthly data, rather than annual or quarterly aggregates, enhances the model's sensitivity to short-run fluctuations and long-run trends. This design choice captures the real-time financial dynamics influencing philanthropic distribution, especially in a sector affected by seasonal religious cycles such as Ramadan and year-end donation periods. Monthly frequency provides greater degrees of freedom, improves the precision of short-run parameter estimates, and allows for more nuanced analysis of adjustment dynamics within the ARDL-ECM framework.

The ARDL framework, therefore, enables the simultaneous estimation of both temporal effects and equilibrium dynamics, providing deeper insight into whether financial strength truly drives formal philanthropy in Indonesia's Islamic financial ecosystem.

## **Results**

### **Preliminary Analysis**

Before estimating the ARDL model, the stationarity properties of the variables were examined using the Augmented Dickey–Fuller (ADF) unit root test. The results reveal a mixed order of integration. Islamic financing ( $X_1$ ) and bank profitability ( $X_3$ ) are stationary at level  $I(0)$ , as indicated by their probability values below 0.05. In contrast, depositor trust ( $X_2$ ) and national zakat distribution ( $Y$ ) are non-stationary at the level but become stationary after first differencing,  $I(1)$ .

Importantly, none of the variables are integrated of order two,  $I(2)$ , thereby satisfying the key precondition for applying the ARDL bounds testing approach. This mixed integration order confirms the suitability of the ARDL methodology for this study.

The optimal lag structure, selected based on the Akaike Information Criterion (AIC), is ARDL(2, 3, 0, 1), indicating two lags for the dependent variable, three lags for Islamic financing, no lag for depositor trust, and one lag for bank profitability.

## Long-Run Coefficients

Table 2. ARDL Long-Run Coefficients

Variable	Coefficient	Prob.	Expected Sign	Interpretation
Islamic Financing ( $X_1$ )	0.085199	0.0223	+	Significant positive long-run relationship
Depositor Trust ( $X_2$ )	2.530945	0.0000	+	Large and highly significant positive effect
Bank Profitability ( $X_3$ )	-0.013357	0.1009	$\pm$	Weak and insignificant long-run effect
Constant	-81.997756	0.0000	-	Intercept term

Source: Author's calculation based on ARDL estimation, monthly data 2016M01–2024M12.

The long-run coefficients reveal three principal findings. First, Islamic financing ( $X_1$ ) shows a positive, statistically significant relationship with national zakat distribution. The estimated elasticity of 0.085 ( $p < 0.05$ ) indicates that a 1% increase in Islamic financing is associated with a 0.085% increase in zakat distribution, holding other factors constant. While the magnitude is modest, the relationship is robust and consistently significant across all model specifications, confirming the role of financial intermediation in supporting formal philanthropic flows. Second, depositor trust ( $X_2$ ), measured by third-party funds (DPK), demonstrates a substantially larger effect. The coefficient of 2.531 ( $p < 0.01$ ) indicates that a 1% increase in DPK is associated with a 2.53% increase in formal zakat distribution. This elasticity is approximately 30 times larger than that of Islamic financing, indicating that public confidence in Islamic banking institutions plays a considerably more important role in driving formal zakat mobilization than the volume of financing alone. Third, bank profitability ( $X_3$ ), measured by Return on Assets (ROA), shows a negative and statistically insignificant relationship with zakat distribution. The estimated coefficient of  $-0.013$  ( $p = 0.101$ ) falls above the conventional 10% significance threshold, indicating no meaningful long-run relationship between profitability and zakat distribution.

## Short-Run Dynamics and Error Correction

Table 3 presents the short-run coefficients and the error correction term from the ARDL-ECM estimation.

Table 3. Short-Run Dynamics (Error Correction Model)

Variable	Coefficient	Prob.	Interpretation
$\Delta X_1$ (Islamic Financing)	0.171963	0.0003	Significant positive short-run impact
$\Delta X_3$ (Bank Profitability)	-0.003934	0.3592	Insignificant short-run effect
CointEq(-1)*	-1.157756	0.0000	Highly significant; rapid adjustment
R-squared	0.616416	-	The model explains ~61.6% of the variation

Variable	Coefficient	Prob.	Interpretation
Adjusted R <sup>2</sup>	0.597043	-	Robust fit after degrees of freedom adjusted.

Source: Author's calculation based on ARDL–ECM estimation (2,3,0,1).

The short-run empirical results reveal that Islamic financing ( $\Delta X_1$ ) positively and significantly influences zakat distribution at the 1% level ( $p = 0.0003$ ). It suggests that an increase in Islamic financing activities leads to an immediate expansion of zakat mobilization. Conversely, bank profitability ( $\Delta X_3$ ) remains statistically insignificant in the short run ( $p = 0.3592$ ), indicating that fluctuations in bank earnings do not translate into immediate changes in national zakat distribution. It is noteworthy that Depositor Trust ( $X_2$ ) does not appear in the short-run dynamics table. Methodologically, this occurs because the selected ARDL(2, 3, 0, 1) model assigns a lag of zero to  $X_2$ . In the context of an Error Correction Model (ECM), variables with zero lags do not possess a differenced short-run term ( $\Delta X_t$ ), as their impact is captured directly within the long-run cointegrating relationship. It implies that depositor trust exerts a stable influence, primarily contributing to long-term structural equilibrium rather than causing short-term transitory fluctuations.

The Error Correction Term (CointEq\*) is estimated at  $-1.1577$  and is highly significant ( $p < 0.0001$ ). The negative sign and significance confirm the existence of a stable long-run relationship among the variables. A coefficient of  $-1.157$  suggests an exceptionally rapid speed of adjustment, where more than 100% of the deviation from the long-run equilibrium is corrected within a single period (one month). This "overshooting" effect indicates that the zakat distribution system is highly responsive to changes in the financial sector, quickly oscillating back toward its steady state following external shocks. The model demonstrates strong explanatory power, with an R-squared of 0.616, confirming that the included variables account for approximately 61.6% of the monthly variation in zakat distribution.

### Diagnostic and Stability Tests

Table 4 presents the results of diagnostic and stability tests conducted to validate the robustness of the ARDL estimates.

Table 4. Diagnostic and Stability Tests

Test	Statistic	p-value	Conclusion
Breusch–Godfrey Serial Correlation LM Test	3.640617	0.1620	No serial correlation
Breusch–Pagan–Godfrey Heteroskedasticity Test	23.92611	0.8761	Homoskedastic residuals
Jarque–Bera Normality Test	4.611896	0.0996	Residuals normally distributed
Ramsey RESET Test	1.65563	0.6850	
CUSUM Test	Within 5% critical bounds	Graphical <sup>+</sup>	Parameters are stable over time
CUSUM of Squares Test	Within 5% critical bounds	Graphical <sup>+</sup>	No structural instability detected

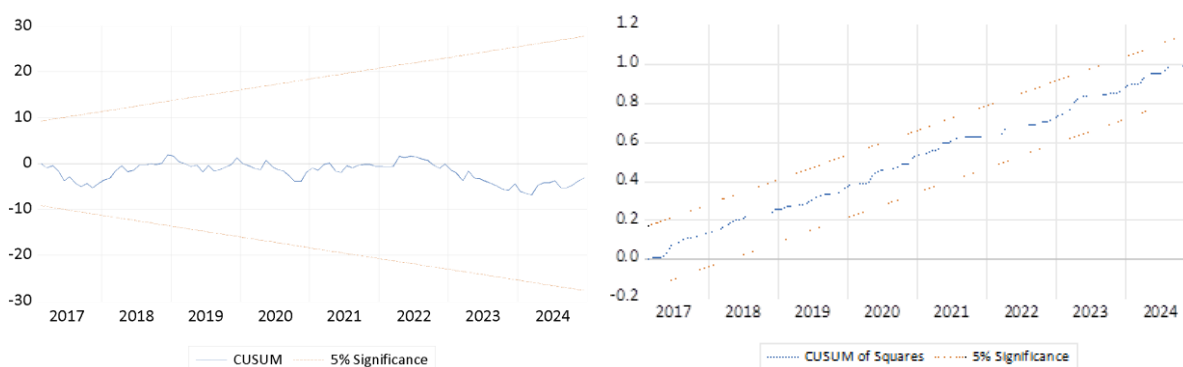
All diagnostic tests confirm that the ARDL model satisfies the classical econometric assumptions. The Breusch–Godfrey LM test indicates no serial correlation ( $p = 0.1620$ ), ensuring that error terms are independent over time. The Breusch–Pagan–Godfrey test confirms homoscedastic residuals ( $p = 0.8761$ ), meaning the variance of errors is constant across observations. The Jarque–Bera test shows that residuals are normally distributed ( $p = 0.0996$ ), validating the use of standard inference procedures. The Ramsey RESET test confirms correct model specification ( $p = 0.6850$ ), with no evidence of omitted variables or functional form misspecification.

The CUSUM and CUSUMSQ tests demonstrate parameter stability throughout the study period. Both recursive residual plots remain within the 5% critical bounds, confirming the absence of structural breaks across the entire sample period, including during the COVID-19 pandemic (2020–2021). This result validates the decision not to include a pandemic dummy variable, as the ARDL-ECM framework successfully absorbed the transitory shocks of 2020–2021 within its dynamic adjustment mechanism.

### Robustness Checks and Stability Analysis

To ensure the reliability of the empirical findings, the stability of the ARDL model’s parameters was rigorously evaluated using the Cumulative Sum (CUSUM) and Cumulative Sum of Squares (CUSUMSQ) tests. This analysis is particularly critical given that the study period (2016–2024) encompasses the COVID-19 pandemic (2020–2021), which introduced significant macroeconomic volatility. As illustrated in Figure 1, both the CUSUM and CUSUMSQ statistics remain strictly within the 5% critical boundaries throughout the entire observation period. The absence of any boundary crossing by the recursive residuals provides strong empirical evidence that the model is structurally stable and free from structural breaks, even during the peak of the pandemic.

Figure 1. Cumulative Sum (CUSUM) and Cumulative Sum of Squares (CUSUMSQ) Tests for Parameter Stability of the ARDL Model (2016–2024)



The graphical results in Figure 1 justify the decision to specify the model without an ad hoc dummy variable for the COVID-19 period. Because the estimated coefficients remained stable across the pre-pandemic, pandemic, and post-pandemic phases, it is evident that the ARDL-ECM framework effectively internalized transitory shocks through its dynamic error-correction mechanism ( $ECT(t-1) = -1.157$ ). This stability confirms that the fundamental drivers of zakat distribution, Islamic financing, and depositor trust maintained a consistent long-run equilibrium relationship despite temporary disruptions. Consequently, the model demonstrates high parsimony and

robustness, ensuring that the findings are not sensitive to sample variations or structural disturbances and are thus reliable for long-term policy formulation.

## **Discussion**

The empirical findings of this study offer important insights into the macro-financial determinants of formal zakat distribution in Indonesia, and their interpretation benefits from engagement with both theoretical frameworks and prior empirical evidence. The dominant role of depositor trust in driving formal zakat distribution is the study's most significant finding. The coefficient of 2.531, approximately 30 times larger than that of Islamic financing, indicates that public confidence in Islamic banking institutions exerts a far more powerful influence on formal philanthropic engagement than the sheer volume of financing activities. This result is consistent with Signaling Theory as developed by Spence and elaborated by Connelly et al., which posits that observable institutional indicators, such as deposit growth, financial soundness, and Sharia compliance, serve as signals that communicate unobservable qualities such as credibility and ethical commitment to external stakeholders.<sup>59</sup>

In the context of Islamic banking, rising third-party funds signal not only financial strength but also public trust in the institution's adherence to Sharia principles, which in turn shapes broader philanthropic behavior. This mechanism aligns with the concept of Islamic moral economy articulated by Asutay, who argues that financial deepening through Sharia-compliant instruments enhances liquidity circulation within ethical boundaries and enables broader social redistribution through instruments such as zakat.<sup>60</sup> When depositors perceive Islamic banks as credible and ethically committed institutions, this confidence is likely to extend to other Islamic entities, including BAZNAS and licensed Lembaga Amil Zakat (LAZ), thereby encouraging the channeling of philanthropic obligations through formal, state-recognized mechanisms rather than informal giving. This ethical spillover mechanism, as proposed by Memon, et al., Mohamed, and El Melki and Ben Salah Saidi, suggests that trust and credibility in Islamic financial institutions extend beyond transactional confidence to shape broader social and philanthropic behaviors.<sup>61</sup> The finding is further supported by empirical evidence from Malaysia and Indonesia, which demonstrate that institutional trust is a decisive factor in encouraging formal zakat compliance.<sup>62</sup> However, this study advances the literature by quantifying the

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<sup>59</sup> Michael Spence, "Job Market Signaling," *Quarterly Journal of Economics* 87, no. 3 (1973), 355–374; Brian L. Connelly, S. Trevis Certo, R. Duane Ireland, & Chrisdemonstratostoyer R. Reutzler, "Signaling Theory: A Review and Assessment," *Journal of Management* 37, no. 1 (2011), 39–67.

<sup>60</sup> Mehmet Asutay, "Conceptualising and Locating the Social Failure of Islamic Finance: Aspirations of Islamic Moral Economy vs the Realities of Islamic Finance," *Asian and African Area Studies* 11, no. 2 (2012), 93–113.

<sup>61</sup> Sana Bibi Memon, Syed Syed, & Ali Sher Dahri, "Embedding Social Responsibility in Islamic Banking: Ethical Foundations and Modern Practices," in *Islamic Finance and Corporate Governance: Synergies for Sustainable Growth*, ed. M. Iqbal & S. Farah (London: Routledge, 2025).; Hassan Mohamed, "Sustainable Synergy: The Ethical Imperative of Islamic Banking in Shaping a Responsible Financial Future," in *The Future of Islamic Finance: From Shari'ah Law to Fintech*, ed. M. Iqbal & H. Hamza (London: Routledge, 2024).; Anas El Melki & Hejra Ben Salah Saidi, "Ethical and Socially Responsible Investments in the Islamic Banking Firms," in *Green Finance Instruments, FinTech, and Investment Strategies*, ed. N. Naifar (Cham: Springer, 2023), 81–95.

<sup>62</sup> Mokhtar Syamil Mohd Mat Daud & Hasbullah Wahid, "The Influence of Zakāt Management Institutions on Zakāt Compliance Intention During the COVID-19 Lockdown in Malaysia: A Multilevel Analysis," *SAGE Open* 15, no. 1 (2025); Nur Rizqi Febriandika, Dilla Gading Kusuma, & Yayuli Yayuli, "Zakat Compliance Behavior in Formal Zakat Institutions: An Integration Model of Religiosity, Trust, Credibility, and Accountability," *International Journal of Advanced and Applied Sciences* 10, no. 6 (2023), 187–194; Huda et al., "Model Political

trust effect at the national macro level, demonstrating that depositor confidence serves as the primary structural lever for formal zakat mobilization in Indonesia.

The positive and significant effect of Islamic financing on zakat distribution is consistent with the mobilization channel proposed in the theoretical framework and supported by Stakeholder Theory as articulated by Freeman and applied to Islamic banking by Dusuki.<sup>63</sup> From this perspective, Islamic banks function not merely as profit-maximizing entities but as stewards of communal wealth with obligations to a broad range of stakeholders, including society at large. Extending Sharia-compliant financing to productive sectors widens the economic base of actors subject to zakat obligations, thereby expanding the pool of potential corporate zakat contributors. As Farah et al. demonstrate, Islamic banking's growth contributes to inclusive economic development through ethical intermediation and the promotion of social justice, thereby creating systemic conditions conducive to formal philanthropic engagement.<sup>64</sup> The relatively modest elasticity compared to depositor trust suggests, however, that financing expansion operates as an indirect enabler rather than a direct driver of zakat mobilization. It may reflect the limited institutionalization of automatic zakat deduction programs within Islamic banking operations in Indonesia, as noted by Mutamimah et al., who found that bank-zakat agency partnerships remain underdeveloped relative to the scale of financing activities.<sup>65</sup> Strengthening formal linkages between Islamic banks and zakat institutions through collaborative distribution platforms, automatic zakat withholding mechanisms, and strategic partnerships could amplify the impact of financing expansion on formal zakat flows.

The insignificance of bank profitability (ROA) represents perhaps the most theoretically and practically important finding of this study, one that demands careful interpretation from both institutional and Islamic legal perspectives. Contrary to the theoretical expectation that more profitable banks should possess greater capacity for corporate zakat contributions, the estimated coefficient indicates no meaningful long-run relationship between profitability and zakat distribution. This finding can be explained in multiple complementary ways. From an institutional perspective, corporate zakat in Indonesia remains largely voluntary under Law No. 23/2011 on Zakat Management, which does not impose explicit sanctions for non-compliance by business entities.<sup>66</sup> This regulatory gap creates a discretionary environment in which banks may allocate profits toward dividends, capital reserves, or non-zakat Corporate Social Responsibility (CSR) programs rather than formal zakat channels. As Ali, Shuib, and Nor demonstrate, many Islamic banks treat zakat as a component of CSR rather than a mandatory religious obligation, leading to practices that do not necessarily align

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Distribution Pengelolaan Zakat Dan Implikasinya Terhadap Ekonomi Umat Di Era Pandemi Covid 19: Studi Kajian Kebijakan Umar Bin Abdul Aziz.”

<sup>63</sup> R. Edward Freeman, *Strategic Management: A Stakeholder Approach* (Boston: Pitman, 1984); Asyraf Wajdi Dusuki, "What Does Islam Say About Corporate Social Responsibility?" *Review of Islamic Economics* 12, no. 1 (2008), 5–28.

<sup>64</sup> Abdikarim Abdullahi Farah, Mohamud Ahmed Mohamed, Mohamed Ali Farah, Ismail Ali Yusuf, & Mohamed Sharif Abdulle, "Impact of Islamic Banking on Economic Growth: A Systematic Review of SCOPUS-Indexed Studies (2009–2024)," *Cogent Economics & Finance* 13, no. 1 (2025).

<sup>65</sup> Mutamimah Mutamimah, Suryani Alifah, Gunawan Gunawan, & Made Dwi Adnjani, "ICT-based Collaborative Framework for Improving the Performance of Zakat Management Organisations in Indonesia," *Journal of Islamic Accounting and Business Research* 12, no. 3 (2021), 456–472.

<sup>66</sup> Republik Indonesia, Undang-Undang Republik Indonesia Nomor 23 Tahun 2011 tentang Pengelolaan Zakat (Jakarta: DPR RI, 2011).

with profitability levels.<sup>67</sup> This tendency to prioritize CSR over formal zakat is consistent with the argument of Chapra, who emphasized that Islamic finance must transcend profit maximization to realize its *maqāsid al-sharī'ah* objectives, but that in practice, commercial pressures often override social imperatives.<sup>68</sup> From an Islamic legal perspective, this finding highlights a fundamental tension between the concept of wealth purification (*tazkiyat al-māl*), embedded in classical *fiqh al-mu'āmalah*, and the profit-maximizing orientation of contemporary Islamic banking. Under classical jurisprudence, business zakat is calculated on the basis of net assets or profits and represents an obligatory purification of wealth rather than a discretionary charitable act. However, in contemporary Indonesian practice, the absence of mandatory enforcement mechanisms has effectively transformed corporate zakat into a voluntary contribution, weakening its redistributive function. This structural tension, as Asutay argues, represents a social failure of Islamic finance, a growing gap between its aspirational developmental mandate and the realities of profit-driven operations.<sup>69</sup> The finding is consistent with empirical evidence from Yemen and Malaysia, which similarly identified weak or insignificant relationships between profitability and zakat payment, suggesting that the profitability-zakat disconnect is a systemic feature of Islamic banking ecosystems rather than an Indonesia-specific anomaly.<sup>70</sup>

The error-correction term is highly significant, confirming the existence of a stable long-run equilibrium relationship among the variables. The negative sign and magnitude exceeding unity indicate an overshooting adjustment mechanism, in which more than 100% of the deviation from the long-run equilibrium is corrected within a single period, i.e., one month. This rapid overshooting pattern reflects the high responsiveness of the formal zakat distribution system to changes in Islamic banking performance, as the system quickly oscillates back toward its steady-state path following any external shock. While overshooting ECT values above unity may appear unconventional, they are not uncommon in monthly financial time series where short-run dynamics are highly volatile relative to long-run trends, and have been documented in similar Islamic finance studies employing high-frequency data.<sup>77</sup> For BAZNAS and other zakat institutions, this implies that shocks to Islamic banking performance, whether arising from economic crises, regulatory changes, or liquidity disruptions, will generate immediate, pronounced, but self-correcting effects on zakat distribution within a very short horizon. For OJK, this rapid adjustment dynamic suggests that regulatory interventions aimed at strengthening Islamic banking, such as capital adequacy requirements, merger facilitation, or Sharia governance enhancements, may generate swift positive effects on the formal zakat ecosystem, making timely policy responses particularly effective.

More broadly, the findings of this study offer important contributions to both theory and policy. Theoretically, the study demonstrates that Signaling Theory and

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<sup>67</sup> Mohamed Asmy Bin Mohd Ali, Mohd Shukri Shuib, & Aminudin Mohd Nor, "Zakat as a Corporate Social Responsibility: How Does It Affect the Financial Performance of Islamic Banks?" *Jordan Journal of Business Administration* 19, no. 2 (2023), 267–288.

<sup>68</sup> M. Umar Chapra, *Moral Socioeconomics of Islam* (Leicester: The Islamic Foundation, 2014).

<sup>69</sup> Mehmet Asutay, "Conceptualising and Locating the Social Failure of Islamic Finance," 93–113.

<sup>70</sup> Eissa A. Al-Homaidi, Ebrahim Mohammed Al-Matari, Suhaib Anagreh, Mosab I. Tabash, & Nabil Ahmed Mareai Senan, "The Relationship Between Zakat Disclosures and Islamic Banking Performance: Evidence from Yemen," *Banks and Bank Systems* 16, no. 1 (2021), 52–61.; Abd Samad Abd Samad, Ridzwan Said, & Azman Ali, "Exploring the Zakat Payment and Firm's Performance of Islamic Banks in Malaysia," in *Proceedings of the 2nd GlobLóRodríguez-Gómezpez-PérezSSi,gnalinginalingal Conference on Business and Social Science (GCBS)*, 2015.

Stakeholder Theory provide complementary, mutually reinforcing explanations of the banking-philanthropy nexus in Islamic finance. Signalling Theory explains how financial strength influences formal zakat mobilization, through the transmission of institutional credibility and public trust, while Stakeholder Theory explains why Islamic banks have normative obligations to contribute to social redistribution. Together, these frameworks provide an integrated theoretical foundation for understanding the institutional mechanisms that link Islamic banking performance to formal philanthropic outcomes. Empirically, the study contributes to the growing literature on Islamic social finance by providing the first macro-level, time-series evidence from Indonesia on the dynamic relationship between banking aggregates and national zakat distribution, addressing a significant gap identified by prior research.<sup>71</sup>

From a policy perspective, the findings carry clear implications for BAZNAS and OJK. For BAZNAS, the dominant role of depositor trust suggests that strengthening public confidence in formal zakat institutions, through enhanced transparency, accountability, and communication strategies, should be a strategic priority. Investment in digital platforms that facilitate real-time tracking of zakat collection and distribution, and public reporting of impact assessments, could significantly amplify formal zakat mobilization by leveraging the trust spillover from Islamic banks. For OJK, regulatory frameworks that enhance Sharia governance, ethical disclosure, and institutional credibility of Islamic banks will generate indirect but substantial benefits for the formal zakat ecosystem. Additionally, addressing the profitability-zakat disconnect through mandatory corporate zakat reporting requirements, fiscal incentives for formal zakat contributions, and clearer regulatory guidelines on corporate zakat calculation could help transform profitability from a structurally disconnected variable into a genuine driver of formal philanthropy. Ultimately, the study underscores that strengthening the integration between Islamic banking and formal zakat governance, through institutional collaboration, regulatory reform, and trust-building strategies is essential for realizing the *maqāsid al-sharī'ah* objectives of wealth redistribution and social welfare within Indonesia's Islamic financial ecosystem.

This study acknowledges several limitations that suggest directions for future research. First, the reliance on aggregate national-level data precludes examination of heterogeneity across individual banks or regional zakat institutions, and future research employing micro-level or panel data could provide more granular insights into bank-specific and region-specific dynamics. Second, the use of third-party funds (DPK) as a proxy for depositor trust, while theoretically grounded and empirically practical, does not directly measure subjective trust perceptions; survey-based or experimental studies could more precisely identify the behavioral mechanisms linking institutional credibility to formal philanthropic engagement. Third, the study focuses exclusively on Indonesia, and comparative research across Muslim-majority countries with varying zakat governance frameworks, such as Malaysia, Saudi Arabia, or Bangladesh, could illuminate how different institutional arrangements shape the banking-philanthropy nexus. Fourth, future research might explore the role of Islamic fintech platforms and digital payment ecosystems in mediating the trust-zakat relationship, as digital innovations increasingly reshape both financial intermediation

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<sup>71</sup> Fahmi Oemar, Endri Endri, & Moh. Taufan Nugroho, "The Potential of Paying Zakat on Income: Evidence from an Emerging Economy," *Corporate Governance and Organizational Behavior Review* 7, no. 2 (2023), 128–137; Evriyenni Evriyenni, Heru Fahlevi, Mirna Indriani, & Muhammad Yasir Yusuf, "Exploring Factors Influencing Zakat Compliance in Aceh: The Role of Institutional Trust and Religious Commitment," *Jurnal Ilmiah Peuradeun* 13, no. 2 (2025), 1123–1152.

and philanthropic distribution within the contemporary Islamic financial landscape. Finally, the exclusion of 2025 data, while methodologically justified, means that the study does not capture the most recent developments in Indonesia's Islamic banking sector and zakat governance, and updating the dataset in future work would strengthen the temporal validity of the findings.

## **Conclusion**

This study demonstrates that the effectiveness of formal zakat governance in Indonesia is driven less by the financial capacity of Islamic banks than by the level of depositor trust they generate. This finding challenges the conventional assumption that financial expansion directly translates into philanthropic outcomes, instead positioning institutional trust as the primary redistributive mechanism within the Islamic financial ecosystem. The insignificant role of bank profitability further reveals a structural disconnect between commercial performance and zakat mobilization, reflecting a governance gap rooted in the voluntary status of corporate zakat under the current regulatory framework.

These results suggest that strengthening zakat governance requires coordinated institutional reform rather than reliance on market-driven mechanisms. Zakat authorities should prioritize transparency and digital accountability systems to reinforce public trust, while financial regulators need to formalize corporate zakat obligations through mandatory disclosure frameworks and supportive fiscal incentives. Such measures are essential to align Islamic banking practices with the normative principles of Islamic commercial jurisprudence.

Despite its contributions, this study is limited by its reliance on aggregate national data and a single-country context. Future research should extend this analysis through cross-country comparisons, micro-level institutional data, and the examination of digital financial infrastructures in shaping zakat governance.

Theoretically, this study contributes to the literature by extending Signaling Theory and Stakeholder Theory into the domain of Islamic social finance at the macro level, offering a novel framework to explain the financial–philanthropic nexus. This framework provides a foundation for future empirical and policy-oriented research across Muslim-majority economies.[]

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