

CHALLENGES IN IMPLEMENTING ISLAMIC FINANCIAL INSTITUTION PENSION FUNDS IN INDONESIA

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Abstract

Islamic Financial Institution Pension Funds (DPLK Syariah) constitute an important instrument for providing retirement security in accordance with Islamic principles. Despite the rapid expansion of the Islamic finance industry in Indonesia, the development of Islamic pension funds remains limited compared with conventional pension schemes. This study aims to systematically examine the main challenges affecting the implementation of DPLK Syariah in Indonesia and to identify strategic directions for strengthening its development. Employing a qualitative research design, this study conducts a structured literature review of scholarly articles, regulatory documents, and policy reports published between 2020 and 2025. The findings reveal four interrelated challenges that constrain Islamic pension fund performance, namely regulatory and legal fragmentation, limited availability of sharia-compliant long-term investment instruments, low public literacy and participation, and weaknesses in institutional capacity and governance. These constraints jointly reduce competitiveness, hinder market penetration, and weaken public confidence in Islamic pension schemes. This study contributes by providing an integrated analytical framework that connects regulatory, financial, social, and institutional dimensions of Islamic pension fund development. The findings offer practical implications for regulators, pension fund operators, and sharia supervisory bodies in designing harmonized regulations, expanding investment instruments, strengthening governance, and improving financial literacy to promote a more inclusive and sustainable Islamic pension fund system in Indonesia.

Keywords: *Financial inclusion, institutional capacity, Islamic pension funds, regulatory harmonization, sharia governance, sharia-compliant investment*

A. INTRODUCTION

Pension systems constitute a fundamental pillar of social protection by ensuring income security for individuals after they leave productive employment. In many countries, pension schemes are increasingly recognized as integral components of long-term welfare policy rather than merely financial instruments, particularly as population ageing and life expectancy continue to rise (Giles et al., 2025). Within Muslim-majority societies, the development of pension systems raises additional

normative concerns regarding compliance with Islamic legal and ethical principles, as Islamic finance emphasizes justice, transparency, and risk sharing as foundational values (Kamal, 2025; Khandakar et al., 2025). Although Islamic finance has expanded rapidly across banking and capital markets, Islamic pension funds remain comparatively underdeveloped and receive limited scholarly attention. This imbalance is problematic because inadequate retirement arrangements expose elderly populations to heightened economic vulnerability, thereby positioning Islamic pension funds as both a financial necessity and an ethical obligation within Islamic economic thought.

Indonesia provides a particularly important context for examining Islamic pension funds due to its demographic scale and institutional diversity. As the country with the largest Muslim population in the world, Indonesia possesses substantial potential for expanding sharia-compliant social security instruments, including Dana Pensiun Lembaga Keuangan Syariah (Abdullah et al., 2024). Despite this potential, empirical indicators show that participation rates and asset growth of Islamic pension funds remain significantly lower than those of conventional schemes, suggesting that institutional availability alone is insufficient to stimulate adoption (Al Rahahleh & Bhatti, 2023). Structural, regulatory, and socio-cultural constraints continue to shape implementation outcomes, while Islamic pension funds operate within a dual legal framework that combines national pension law and sharia governance. This institutional dualism generates regulatory complexity and operational uncertainty, making Indonesia a critical case for scholarly investigation into the governance and performance of Islamic pension systems.

From a legal and ethical perspective, Islamic pension funds are closely connected to the objectives of Islamic law, particularly the protection of wealth and human dignity as articulated within the *maqāṣid al-sharī'ah* framework (Monawer et al., 2022). Islamic jurisprudence assigns a collective responsibility to safeguard individuals from hardship in old age through lawful and equitable mechanisms, while prohibiting *riba*, *gharar*, and unjust enrichment (Mahboob et al., 2025). Nevertheless, translating these normative principles into operational pension arrangements remains challenging. Divergent interpretations of contractual structures and compliance standards frequently generate ambiguity, and the absence of detailed technical guidance weakens institutional consistency (Arroyo et al., 2025). These conditions erode public trust and undermine the credibility of Islamic pension institutions, indicating that legal clarity and institutional coherence are essential prerequisites for sustainable development.

Existing international studies provide important insights into Islamic pension systems but also reveal substantial limitations. Research in Turkey highlights persistent debates concerning the sharia validity of interest-free pension schemes and participation-based models, reflecting unresolved tensions between jurisprudential interpretation and regulatory design (Güney & Gezgin, 2023). Jurisprudential

assessments of national pension institutions in Kenya emphasize compliance with Islamic legal doctrines but provide limited evaluation of operational performance and governance quality (Abdulrahman, 2021). Investment-oriented studies examine the construction of sharia-compliant portfolios using modern portfolio theory, yet rarely connect investment design with pension fund governance and institutional risk management (Sandwick & Collazzo, 2021). Broader analyses of welfare regimes in Muslim-majority contexts explore the interaction between social assistance and state policy but do not systematically address pension governance under Islamic legal constraints (Öktem & Erdogan, 2020). More recent regulatory studies in Southeast Asia highlight the importance of certification and legal clarity in strengthening sharia-based institutions, yet remain focused on sector-specific applications rather than pension systems (Rasmuddin et al., 2024). Collectively, these studies demonstrate that existing scholarship remains fragmented across legal, financial, and policy domains, limiting its applicability to emerging Islamic pension markets.

In the Indonesian context, scholarly attention to Islamic pension funds remains relatively limited and uneven. Domestic legal studies often examine regulatory texts and fatwas without systematic integration of institutional performance and governance mechanisms (Bakar et al., 2025). Economic discussions tend to prioritize descriptive growth trends while overlooking jurisprudential implications and compliance dynamics. At the same time, policy-oriented research emphasizes financial inclusion without adequately addressing investment constraints and institutional capacity (Bai & Wang, 2026). This fragmentation produces a persistent disconnect between normative Islamic principles and practical pension administration, particularly regarding how regulatory harmonization, investment limitations, institutional governance, and public literacy interact simultaneously within the Indonesian system.

To date, no study has systematically synthesized regulatory coherence, sharia compliance, investment constraints, institutional capacity, and public literacy within a single analytical framework for the Indonesian Islamic pension context. As a result, existing policy recommendations remain partial and insufficient to address the multidimensional challenges facing Islamic pension development. This unresolved gap becomes increasingly critical as regulators seek to expand Islamic financial inclusion and strengthen social protection mechanisms in ageing Muslim societies.

Against this background, the present study is grounded in the premise that Islamic pension funds should be examined as multidimensional institutions functioning simultaneously as legal entities, financial intermediaries, and instruments of social protection. This study adopts a literature-based qualitative approach to synthesize recent scholarly and policy-oriented sources in order to clarify the structural challenges that hinder effective implementation. Beyond identifying obstacles, the analysis also explores strategic responses discussed in the literature, thereby enabling a balanced assessment of both constraints and opportunities. By

integrating Islamic jurisprudence, regulatory policy, and economic management within a single analytical framework, this study seeks to strengthen evidence-based discourse on Islamic pension development. In doing so, this study not only maps existing constraints but also advances a conceptual understanding of Islamic pension governance as an integrated institutional system.

Accordingly, this study aims to provide an integrated analysis of the implementation of Islamic pension funds in Indonesia by addressing two main research objectives. First, it identifies the principal regulatory, investment, social, and institutional challenges constraining the performance of Islamic pension schemes. Second, it formulates strategic directions for strengthening governance, investment structures, and public participation. Unlike previous studies that examine these dimensions separately, this research connects regulatory harmonization, sharia governance, investment limitations, and institutional capacity within a unified analytical narrative. By synthesizing recent Scopus-indexed literature, the study contributes conceptually to Islamic economic and legal scholarship and offers practical guidance for regulators, pension fund operators, and sharia supervisory bodies in promoting a more inclusive and sustainable Islamic pension fund system in Indonesia. This integrated perspective is particularly relevant for Muslim-majority countries seeking to align pension reform with Islamic finance development agendas.

B. THEORETICAL FOUNDATION

The theoretical foundation of this study is grounded in three interrelated bodies of literature, namely Islamic economic jurisprudence, pension system governance theory, and institutional governance frameworks. Together, these perspectives provide an integrated conceptual basis for understanding Islamic pension funds not merely as financial intermediaries, but as hybrid institutions operating simultaneously within legal, ethical, financial, and social protection systems. This multidimensional positioning is essential because Islamic pension schemes are embedded in dual normative regimes, combining statutory pension regulation with the moral and jurisprudential requirements of sharia. Accordingly, effective implementation cannot be assessed solely through financial performance, but must also be evaluated in terms of regulatory coherence, governance quality, institutional capacity, and social legitimacy.

From the perspective of Islamic economic jurisprudence, pension funds are closely aligned with the objectives of Islamic law, particularly the protection of wealth, dignity, and social welfare as articulated within the maqāṣid al-sharīʿah framework (Monawer et al., 2022; Kamal, 2025). Islamic economic theory emphasizes justice, risk sharing, transparency, and the prohibition of *riba*, *gharar*, and unjust enrichment as foundational principles governing financial transactions. In this normative framework, retirement protection constitutes a collective moral

responsibility to safeguard individuals against vulnerability in old age. However, Islamic jurisprudence also recognizes that institutional mechanisms must translate ethical norms into operational contracts and governance structures. Divergent interpretations of contractual forms, profit-sharing mechanisms, and supervisory standards therefore generate potential tensions between doctrinal ideals and institutional practice, creating a central theoretical problem in Islamic pension governance.

The second theoretical pillar is derived from pension system governance theory, which conceptualizes pension funds as long-term liability-driven institutions requiring stable regulation, prudent investment management, and credible supervisory mechanisms (Kvist, 2023; Giles et al., 2025). In conventional pension theory, regulatory coherence and investment diversification are treated as core determinants of sustainability and risk management. For Islamic pension funds, these requirements are further constrained by sharia-compliance obligations that limit the universe of permissible instruments and contractual structures. The interaction between regulatory design and investment availability thus becomes a structural determinant of performance. As highlighted in Islamic portfolio and pension studies, shortages of long-term sharia-compliant instruments weaken asset–liability matching and increase systemic vulnerability (Sandwick & Collazzo, 2021; Khan et al., 2025). This literature provides a financial governance foundation for analyzing how regulatory ceilings, conservative asset allocation, and limited sukuk supply constrain institutional sustainability.

The third theoretical foundation draws on institutional governance and regulatory coherence theory, which emphasizes that complex financial systems depend on the alignment of formal rules, supervisory capacity, organizational competence, and social trust (Faguet & Shami, 2022; Miao et al., 2023; Galleli & Amaral, 2026). Institutional theory posits that fragmented regulatory regimes and overlapping mandates generate uncertainty, weaken compliance incentives, and encourage ceremonial rather than substantive governance. In dual legal systems such as Islamic finance, the coexistence of state regulation and religious supervision intensifies coordination challenges and amplifies the risk of institutional inconsistency. Governance effectiveness therefore depends not only on the existence of rules, but on the coherence of regulatory frameworks, the operational integration of supervisory bodies, and the internal capacity of institutions to implement complex compliance standards.

Finally, this study incorporates a social institutional perspective that links public literacy and trust to institutional legitimacy and participation. Financial inclusion theory suggests that awareness, transparency, and perceived credibility are necessary conditions for voluntary pension enrollment, particularly in systems characterized by long-term contractual commitment and asymmetric information

(Avdukic et al., 2024; Roth et al., 2025). In Islamic finance, trust is further conditioned by perceptions of religious compliance and ethical integrity. Weak disclosure practices, inconsistent governance, and regulatory ambiguity therefore undermine not only participation rates but also the moral authority of Islamic pension institutions. This perspective supports the argument that literacy deficits and low participation are not isolated behavioral problems but outcomes of deeper institutional and regulatory weaknesses.

Integrating these theoretical strands, this study adopts a conceptual framework that views Islamic pension fund implementation as an integrated institutional system shaped by five interdependent dimensions: regulatory coherence, sharia governance, investment structures, institutional capacity, and public literacy and trust. This framework reflects the assumption that sustainable Islamic pension development requires simultaneous alignment across legal, ethical, financial, organizational, and social domains. By grounding the analysis in Islamic jurisprudence, pension governance theory, and institutional governance frameworks, the study provides a robust theoretical foundation for examining why Islamic pension funds in Indonesia face persistent implementation challenges and how coordinated institutional reform may enhance their long-term viability.

C. METHOD

This study adopts a qualitative research design based on a structured literature review in order to examine the implementation challenges of Islamic pension funds in Indonesia. A qualitative synthesis approach is appropriate because the research focuses on interpreting regulatory, institutional, and jurisprudential dimensions that cannot be adequately captured through quantitative indicators alone, as emphasized by (Mitchell, 2023) in qualitative policy analysis. By combining doctrinal legal analysis and thematic synthesis, the study integrates insights from Islamic jurisprudence, pension regulation, and institutional governance within a single analytical framework. This design allows the study to move beyond descriptive mapping and to generate an explanatory understanding of how regulatory coherence, sharia compliance, investment structures, and institutional capacity interact in shaping Islamic pension fund performance.

The data were obtained from peer-reviewed journal articles, regulatory documents, and international policy reports published between 2020 and 2025. Academic sources were retrieved primarily from the Scopus database using the keywords “Islamic pension funds,” “sharia pension schemes,” “interest-free pension,” and “Islamic social security,” following a structured search strategy recommended in systematic qualitative reviews by (Alhammadi, 2023; Darwis et al., 2023). To ensure relevance to the Indonesian context, additional sources were identified from official publications of the Financial Services Authority and national statistical agencies.

Throughout the search process, titles and abstracts were screened to ensure substantive relevance to pension governance, sharia compliance, and institutional performance.

The selection of studies followed explicit inclusion and exclusion criteria in order to maintain analytical rigor. Included studies were required to be peer-reviewed publications indexed in Scopus or reputable international journals, to address Islamic pension systems or closely related institutional arrangements, and to provide conceptual, legal, or governance-oriented analysis. Studies focusing exclusively on Islamic banking, capital markets, or unrelated social insurance schemes were excluded, as recommended in qualitative evidence synthesis protocols by (Dirie et al., 2024). After screening, a final set of core studies and policy documents was retained for in-depth analysis.

Data analysis was conducted using a thematic synthesis approach adapted from the framework proposed by (Whitelock-Wainwright et al., 2022). Each selected document was read iteratively and coded according to emerging analytical categories related to regulation, sharia governance, investment constraints, institutional capacity, and public literacy. Coding was performed manually to preserve interpretive sensitivity, and themes were refined through constant comparison across sources, as suggested by (Isangula et al., 2024). The analytical process aimed not only to identify recurring challenges but also to map the relationships among legal, financial, and institutional dimensions in Islamic pension governance.

To enhance transparency and replicability, the analytical framework employed in this study is summarized in Table 1, which presents the main analytical dimensions, indicators, and illustrative issues derived from the reviewed literature.

Table 1. Analytical Framework and Coding Scheme for Islamic Pension Fund Implementation

Analytical Dimension	Key Indicators	Illustrative Issues Identified in the Literature
Regulatory coherence	Legal harmonization, regulatory clarity	Dual legal framework, fragmented pension law
Sharia governance	Compliance standards, supervisory mechanisms	Divergent fiqh interpretations, weak oversight
Investment structures	Availability of long-term instruments	Limited sukuk supply, portfolio concentration
Institutional capacity	Managerial competence, operational systems	Weak risk management, limited human resources
Public literacy and trust	Awareness, participation rates	Low pension literacy, limited market penetration

Table 1 summarizes the analytical framework and coding scheme employed in this study to organize and interpret the qualitative evidence on Islamic pension fund implementation. The framework delineates five interrelated analytical dimensions that reflect the multidimensional nature of Islamic pension governance, namely regulatory coherence, sharia governance, investment structures, institutional capacity, and public

literacy and trust. Each dimension is operationalized through a set of key indicators that guided the coding process and ensured conceptual consistency across the reviewed sources. The illustrative issues listed in the table represent recurring patterns identified during the thematic analysis and served as reference points for cross-document comparison. By structuring the analysis along these dimensions, the table provides a transparent and replicable basis for synthesizing legal, financial, and institutional findings. This framework not only facilitates systematic interpretation of heterogeneous sources but also supports the integrative analytical approach adopted in this study by linking regulatory, governance, and socio-institutional challenges within a single coherent scheme.

Several strategies were employed to enhance the trustworthiness of the analysis. First, data triangulation was achieved by combining academic literature with regulatory and policy documents, consistent with the qualitative validation principles outlined by (Bellido-García et al., 2022). Second, analytical categories were continuously refined through peer debriefing and iterative comparison across sources. Third, an audit trail was maintained by documenting coding decisions and thematic revisions, thereby strengthening transparency and analytical reliability.

Because this study relies exclusively on secondary data from publicly available sources, no direct ethical risks to human participants were involved. Nevertheless, all sources were cited appropriately and interpreted responsibly in accordance with academic integrity standards, as recommended by the Committee on Publication Ethics (Kier & Ives, 2022). The analysis was conducted with particular attention to avoiding misrepresentation of religious doctrines and regulatory provisions.

By adopting a structured qualitative synthesis that integrates doctrinal, institutional, and policy perspectives, this study advances a methodological approach that extends beyond conventional descriptive reviews. This design enables a comprehensive assessment of Islamic pension governance as an integrated institutional system and provides a replicable analytical framework for future comparative research in Muslim-majority countries.

D. RESULTS AND DISCUSSION

1. Results

a) Overview of the Analytical Findings

This section presents the empirical findings derived from the qualitative synthesis of the selected literature and policy documents. Following the analytical framework described in the Methods section, the results are organized into five interrelated dimensions, namely regulatory coherence, sharia governance, investment structures, institutional capacity, and public literacy and trust. The analysis reveals that these dimensions do not operate independently but form a mutually reinforcing system that shapes the overall performance and adoption of Islamic pension funds in

Indonesia. Across the reviewed sources, regulatory fragmentation and limited investment instruments emerge as the most frequently cited constraints, while weaknesses in institutional capacity and low public literacy further compound implementation difficulties. Table 2 summarizes the distribution of key themes across the reviewed studies, while Figure 1 illustrates the structural interconnections among the identified dimensions.

b) Regulatory Coherence

The first dominant theme concerns regulatory coherence and legal harmonization within the Islamic pension system. A substantial proportion of the reviewed sources indicate that Islamic pension funds operate within a dual regulatory regime that combines national pension legislation and sharia governance frameworks, which often generates interpretative ambiguity and procedural inconsistency. Several documents highlight that overlapping supervisory mandates and the absence of detailed operational guidelines complicate compliance monitoring and licensing procedures. Regulatory uncertainty is frequently associated with delayed product approval and limited innovation in pension instruments, thereby constraining institutional responsiveness. In addition, differences in the interpretation of sharia standards across supervisory boards contribute to uneven regulatory enforcement and weaken market confidence. These findings indicate that regulatory coherence constitutes a foundational condition for strengthening Islamic pension governance.

c) Sharia Governance and Compliance Mechanisms

The second analytical dimension relates to sharia governance and compliance structures. The reviewed literature consistently reports that divergent jurisprudential interpretations regarding contractual arrangements and profit-sharing mechanisms generate uncertainty among pension fund operators and participants. Several studies emphasize that supervisory boards face practical limitations in monitoring complex pension portfolios, particularly in long-term investment contexts. Weak coordination between regulatory authorities and sharia supervisory institutions further complicates compliance assurance. As a result, governance structures often remain formalistic and insufficiently integrated into daily operational decision-making. These findings suggest that strengthening sharia governance requires not only normative clarity but also institutional mechanisms capable of ensuring continuous and consistent supervision.

d) Investment Structures and Instrument Availability

Investment constraints constitute a third major theme identified in the analysis. The reviewed sources reveal that Islamic pension funds face a persistent shortage of sharia-compliant long-term investment instruments suitable for liability-driven

pension management. Limited sukuk supply, concentration in low-yield assets, and restricted access to diversified portfolios reduce both returns and risk-management flexibility. Several documents report that portfolio concentration heightens exposure to market volatility and undermines the sustainability of pension obligations. In addition, regulatory investment ceilings and conservative asset allocation policies further restrict innovation in pension fund investment strategies. These findings demonstrate that investment structure limitations represent a critical bottleneck in the financial performance of Islamic pension schemes.

e) Institutional Capacity and Operational Readiness

Institutional capacity emerges as a fourth key dimension influencing implementation outcomes. The reviewed literature identifies deficiencies in managerial expertise, risk-management systems, and information technology infrastructure as recurrent challenges. Weak human resource development and limited actuarial competence constrain product design and long-term financial planning. Several policy reports indicate that operational inefficiencies reduce service quality and hinder participant retention. Moreover, fragmented organizational structures and limited coordination among internal departments weaken strategic decision-making. These findings indicate that institutional capacity functions as an enabling condition that mediates the effectiveness of regulatory frameworks and investment strategies.

f) Public Literacy, Participation, and Trust

The final analytical dimension concerns public literacy, participation, and trust. The reviewed studies consistently report low awareness of Islamic pension products among potential participants, particularly in informal and small-enterprise sectors. Limited understanding of pension benefits and sharia compliance mechanisms contributes to weak enrollment rates and high preference for conventional schemes. Several sources highlight that inadequate disclosure practices and limited outreach activities undermine public confidence in Islamic pension institutions. Trust deficits are further exacerbated by regulatory uncertainty and inconsistent governance practices. These findings indicate that improving financial literacy and transparency constitutes a necessary complement to regulatory and institutional reforms.

Table 2. Distribution of Key Analytical Themes across Reviewed Studies

Analytical Dimension	Number of Studies Addressing the Theme	Dominant Issues Identified
Regulatory coherence	9	Dual legal framework, fragmented regulation
Sharia governance	8	Divergent interpretations, weak supervision

Analytical Dimension	Number of Studies Addressing the Theme	Dominant Issues Identified
Investment structures	10	Limited sukuk supply, portfolio concentration
Institutional capacity	7	Weak risk management, limited expertise
Public literacy and trust	8	Low awareness, weak participation

Table 2 presents the frequency with which each analytical dimension appears across the reviewed literature. Investment structures and regulatory coherence constitute the most prominent themes, indicating that financial and legal constraints dominate the current discourse on Islamic pension implementation.

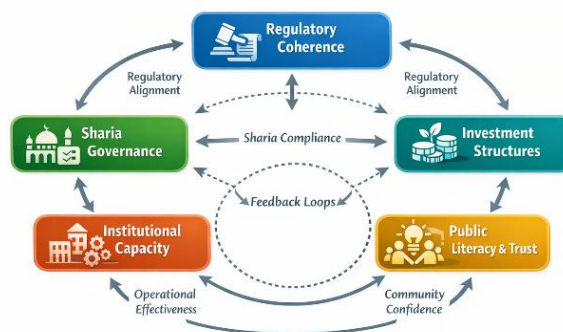


Figure 1. Structural Interconnections among Implementation Dimensions (Textual Diagram)

Figure 1 illustrates the systemic interdependence among regulatory, governance, financial, institutional, and social dimensions. The diagram highlights that weaknesses in one dimension tend to propagate across the system, reinforcing structural constraints on Islamic pension fund development.

g) Summary of Results

Taken together, the results demonstrate that the implementation of Islamic pension funds in Indonesia is shaped by a complex interaction among regulatory coherence, sharia governance, investment structures, institutional capacity, and public literacy. Rather than operating as isolated barriers, these dimensions form an integrated institutional system in which deficiencies reinforce one another and constrain overall performance. This multidimensional pattern provides the empirical basis for the integrative discussion presented in the following section.

2. Discussion

The results confirm that regulatory coherence constitutes the primary structural constraint shaping the performance of Islamic pension funds in Indonesia. Fragmented legal frameworks and overlapping supervisory mandates generate uncertainty that

weakens institutional responsiveness, a pattern also observed in comparative pension governance studies by (Kurniati & Abdillah, 2025). When regulatory ambiguity persists, compliance procedures become procedural rather than substantive, reducing incentives for innovation and long-term planning as argued by World Bank analysts in pension reform literature (Kamal, 2025; Khandakar et al., 2025). This finding aligns with Güney and Gezgin (2023), who report that unresolved regulatory tensions in participation-based pension schemes hinder market confidence in Turkey. In the Indonesian context, the coexistence of national pension law and sharia governance further complicates harmonization, confirming earlier institutional assessments by (Rasmuddin et al., 2024). The present study extends these observations by demonstrating that regulatory fragmentation does not operate in isolation but interacts directly with governance and investment constraints. This integrated perspective supports institutional theories emphasizing the systemic nature of regulatory failure in complex financial systems, as formulated by (Galleli & Amaral, 2026). Consequently, regulatory harmonization emerges not merely as a legal necessity but as a foundational condition for sustainable Islamic pension development.

The analysis further reveals that weaknesses in sharia governance represent a critical transmission channel through which regulatory incoherence affects institutional credibility. Divergent jurisprudential interpretations regarding contractual structures reproduce uncertainty among fund managers and participants, a concern similarly highlighted in the comparative review by (Okuno & Okuno, 2025). Limited coordination between supervisory boards and regulatory authorities constrains continuous compliance monitoring, reinforcing formalistic governance practices described by (Ahmad & Mahmood, 2024). This pattern echoes findings from Kenya, where jurisprudential clarity failed to translate into operational effectiveness according to Abdulrahman (2021). By situating governance within a broader institutional system, this study demonstrates that compliance mechanisms require not only doctrinal consistency but also operational integration. The results also resonate with Kamali's (2017) argument that maqāsid-oriented governance demands institutional instruments capable of safeguarding both legality and social welfare. Importantly, the present findings indicate that governance failures amplify investment and participation risks, thereby magnifying systemic vulnerability. Strengthening sharia governance thus represents a strategic lever for restoring confidence and improving institutional resilience.

Investment constraints constitute a third decisive factor limiting the sustainability of Islamic pension schemes. The persistent shortage of sharia-compliant long-term instruments restricts portfolio diversification and weakens liability management, a challenge previously identified in investment design studies by Sandwick and Collazzo (2021). Regulatory ceilings and conservative asset allocation policies further reduce innovation capacity, reinforcing low-yield equilibria described

in comparative pension finance by (Khan et al., 2025). The present findings extend this literature by linking investment scarcity to governance and regulatory fragmentation rather than treating it as a purely market-based limitation. Similar structural bottlenecks have been reported in Southeast Asian Islamic finance systems by Rasmuddin et al. (2024), confirming the regional relevance of these constraints. By demonstrating the feedback loop between regulation, governance, and investment performance, this study contributes a systemic interpretation that remains underdeveloped in existing scholarship. The results also indicate that investment reform cannot succeed without parallel regulatory harmonization and governance strengthening. Therefore, expanding sukuk supply and diversifying sharia-compliant instruments must be embedded within coordinated institutional reform strategies.

Institutional capacity and operational readiness emerge as mediating variables that condition the effectiveness of regulatory and financial reforms. Deficiencies in actuarial expertise, risk management, and information systems replicate organizational weaknesses documented in international pension governance by (Fisch & Schwartz, 2025). In Indonesia, limited human resource development constrains product design and participant services, confirming policy evaluations reported by (Rojak, 2024). The present study advances this literature by demonstrating that institutional fragility not only reduces efficiency but also weakens public trust and participation. This interaction supports organizational theories emphasizing capability building as a prerequisite for regulatory effectiveness, as proposed by Miao et al., (2023) in institutional policy analysis. Moreover, fragmented internal coordination reproduces strategic inertia that undermines reform sequencing, a phenomenon also discussed by World Bank reform diagnostics (Faguet & Shami, 2022). By embedding institutional capacity within a multidimensional framework, this study clarifies how managerial and technical weaknesses propagate across governance and market dimensions. Strengthening institutional infrastructure therefore constitutes a central pillar of Islamic pension system reform.

Finally, low public literacy and fragile trust emerge as both outcomes and drivers of systemic dysfunction. Limited awareness of sharia-compliant pension benefits reproduces participation gaps similar to those identified in financial inclusion studies by (Avdukic et al., 2024). In the Indonesian context, inadequate disclosure practices and weak outreach programs reinforce skepticism toward Islamic pension institutions, confirming earlier sociocultural analyses by Öktem and Erdogan (2020). The present study contributes by demonstrating that literacy deficits are not merely informational failures but reflect deeper institutional and regulatory weaknesses. This systemic interpretation aligns with Roth et al., (2025) institutional framework, which emphasizes the co-evolution of formal rules and social beliefs. By integrating regulatory, governance, financial, institutional, and social dimensions within a single analytical narrative, this study advances a holistic understanding of Islamic pension

governance. The findings underscore that reform initiatives must address structural coherence rather than isolated technical adjustments. Collectively, the discussion positions Islamic pension funds as strategic instruments of social protection whose sustainability depends on coordinated institutional transformation.

E. CONCLUSION

This study set out to examine the structural challenges shaping the implementation of Islamic pension funds in Indonesia by integrating regulatory, governance, financial, institutional, and social dimensions within a single analytical framework. The findings demonstrate that regulatory fragmentation, weak sharia governance, limited investment instruments, constrained institutional capacity, and low public literacy operate as an interconnected system that jointly constrains the sustainability and competitiveness of Islamic pension schemes. Rather than functioning as isolated barriers, these dimensions reinforce one another and reproduce persistent implementation failures. By synthesizing recent international and national literature, this study provides a coherent explanation of why institutional availability alone has been insufficient to stimulate participation and asset growth in Islamic pension funds. The analysis therefore advances a conceptual understanding of Islamic pension governance as an integrated institutional system, extending existing scholarship that has treated legal, financial, and social dimensions separately. This integrative perspective constitutes the main theoretical contribution of the study and responds directly to current debates on Islamic social security reform in emerging Muslim-majority economies.

From a policy and managerial perspective, the findings suggest that effective reform requires coordinated institutional transformation rather than fragmented technical adjustments. Regulatory harmonization between national pension law and sharia governance is essential to reduce uncertainty and restore market confidence, while strengthened supervisory mechanisms are needed to ensure continuous and consistent compliance. Expanding the supply and diversification of sharia-compliant long-term investment instruments represents a critical condition for improving portfolio performance and sustainability. At the same time, capacity building in actuarial expertise, risk management, and information systems is necessary to enhance operational readiness and service quality. Finally, systematic financial literacy programs and transparent disclosure practices are indispensable for strengthening public trust and participation. Taken together, these conclusions position Islamic pension funds as strategic instruments of inclusive social protection whose long-term viability depends on integrated regulatory, institutional, and social reform. By clarifying these interdependencies, the study offers a robust foundation for future empirical research and supports evidence-based policy initiatives aimed at strengthening Islamic pension systems in Indonesia and comparable jurisdictions.

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