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Sukuk Linked Waqf (An Analytical Study on the Development of a Productive Waqf Asset Management Model in Indonesia)

Muhammad Qodri[1], Immas Nurhayati[2], Nurul Huda[3], Hendri Tanjung[4]
[124] Universitas Ibn Khaldun Bogor, Indonesia
[3] Universitas Yarsi, Indonesia

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ABSTRACT

The This study aims to develop an integrated model of Sukuk-Linked Waqf to optimize unproductive waqf assets in Indonesia. Despite the vast potential of waqf assets, their utilization remains suboptimal due to limited managerial capacity, lack of innovation, and weak governance. This research adopts a qualitative approach combined with the Analytical Network Process (ANP) to identify key determinants influencing the effectiveness of waqf management. The results show that the consistency ratio (CR) values across stakeholders—Badan Wakaf Indonesia (0.08), Otoritas Jasa Keuangan (0.07), Dewan Syariah Nasional Majelis Ulama Indonesia (0.06), Bank Syariah Indonesia (0.09), investors (0.08), and practitioners (0.07)—are all below the acceptable threshold of 0.10, indicating reliable and consistent judgments. In terms of priority criteria, transparency (0.26) and regulatory support (0.22) are identified as the most influential factors, followed by public trust (0.20), institutional efficiency (0.18), and socialization or financial literacy (0.14). The study proposes an Integrated Sukuk–Waqf Synergy Model (ISWSM) as an innovative solution that integrates Islamic social finance and capital market instruments through a digital platform. The proposed model enables sustainable financing by combining philanthropic and commercial funds through a blended finance approach. This research contributes theoretically by enriching Islamic social finance literature and practically by offering an implementable model for stakeholders. It also provides policy implications for strengthening governance and developing innovative financing mechanisms to support sustainable socio-economic development.

Corresponding Author: muhammad.9odri189@gmail.com

INTRODUCTION

This study examines the problem of managing productive waqf assets within the context of Islamic social finance in Indonesia. Waqf, as an Islamic philanthropic instrument, holds significant potential to support economic development and social welfare. However, despite this vast potential, the utilization of waqf assets in Indonesia remains suboptimal. The total area of waqf land has reached more than 400,000 hectares

and is widely distributed across the country, yet a substantial portion of these assets is still managed traditionally and used primarily for consumptive purposes. Consequently, waqf assets have not yet generated significant economic value or sustainable social impact for the broader community.

The issue of productive waqf and its integration with Islamic financial instruments, particularly sukuk, has attracted increasing attention in recent years (Ascarya, 2023; Ryandono et al., 2025). One notable development is the concept of Cash Waqf Linked Sukuk (CWLS), which demonstrates how the integration of waqf and sukuk can serve as an effective blended finance instrument to support social financing initiatives (Bank Indonesia, 2022). Through this model, philanthropic funds can be combined with commercial investment instruments, thereby enhancing financial sustainability while maintaining social objectives. Nevertheless, most existing studies have primarily focused on cash waqf, whereas the utilization of unproductive waqf assets—such as idle waqf land—remains relatively underexplored.

This condition highlights a significant research gap, particularly in the development of an implementable and integrative model that can systematically link unproductive waqf assets with sukuk-based financing mechanisms. In practice, the management of waqf assets in Indonesia continues to face several critical challenges. These include the limited managerial capacity and professionalism of nazhir (waqf managers), weak governance structures, insufficient transparency and accountability, and low levels of financial literacy and public trust (Afifah & Iqbal, 2022; Hosen et al., 2022).

These challenges not only hinder the optimization of waqf assets but also reduce public participation in waqf-based financial schemes. As a result, the transformative potential of waqf as a tool for socio-economic empowerment has not been fully realized. On the other hand, the rapid development of the Islamic financial industry—particularly sukuk—offers a promising opportunity to address the financing constraints associated with waqf asset development. Sukuk, as an asset-backed financing instrument, enables the mobilization of funds in a structured and Sharia-compliant manner to support various economic and social projects (OJK, 2023). Unlike conventional debt instruments, sukuk is based on underlying assets, making it more closely linked to real economic activities. Therefore, the integration of waqf and sukuk within a Sukuk Linked Waqf scheme has the potential to create a sustainable financing system that is not only financially viable but also socially impactful and ethically grounded.

Despite these promising developments, there is still a lack of studies that combine analytical approaches—such as the Analytical Network Process (ANP)—with the development of practical, system-based models, particularly those supported by digital platforms. Most existing research tends to remain at a conceptual or normative level, without providing an operational framework that can be directly implemented by stakeholders. This limitation underscores the need for a more comprehensive and applicative approach that integrates financial innovation, governance mechanisms, and digital technology into a unified model.

Therefore, this study aims to address this gap by developing an integrative Sukuk Linked Waqf model based on a digital platform, referred to as the Integrated Sukuk–Waqf

Synergy Model (ISWSM). This model is designed to transform unproductive waqf assets into productive ones by linking them with sukuk-based financing, while ensuring transparency, accountability, and efficiency through digital system integration. By doing so, the model seeks to enhance the effectiveness of waqf management and expand its socio-economic impact.

Specifically, this study seeks to answer three main research questions: (1) what are the key problems in managing productive waqf assets in Indonesia, (2) how can sukuk contribute to the development and optimization of waqf assets, and (3) what constitutes an ideal management model through the integration of Sukuk Linked Waqf. By integrating Islamic social finance theory, Institutional Theory, and the Analytical Network Process (ANP) approach, this study is expected to contribute both theoretically and practically. From a theoretical perspective, it enriches the literature on Islamic social finance by introducing a blended finance model that integrates philanthropic and commercial instruments. From a practical perspective, it provides a feasible and scalable model for key stakeholders—including the government, Badan Wakaf Indonesia (BWI), Otoritas Jasa Keuangan (OJK), Dewan Syariah Nasional–Majelis Ulama Indonesia (DSNMUI), Islamic financial institutions, nazhir, and investors—in developing a more productive, transparent, and sustainable waqf ecosystem in Indonesia.

LITERATUR REVIEW

A review of the literature over the past decade (2015–2025) reveals divergent perspectives regarding the development of productive waqf and its integration with Islamic financial instruments. From a theoretical standpoint, waqf has been widely recognized as a core component of Islamic social finance, playing a crucial role in wealth redistribution and socio-economic development (Ascarya, 2023; Kahraman, 2021). This perspective emphasizes the normative and ethical foundations of waqf, particularly its alignment with maqasid al-shariah and its function as a sustainable philanthropic instrument (Alshater et al., 2022).

In contrast, recent empirical studies highlight the growing importance of integrating waqf with market-based Islamic financial instruments, particularly sukuk. The emergence of Cash Waqf Linked Sukuk (CWLS) demonstrates the potential of combining philanthropic funds with commercial investment mechanisms to create a blended finance model that enhances both financial sustainability and social impact (Bank Indonesia, 2022; Ryandono et al., 2025; Taqwiem & Rachmadi, 2023). Empirical findings further suggest that such integration can improve the efficiency of resource mobilization and expand public participation in Islamic social finance (Hosen et al., 2022; Kunhibava et al., 2023).

Despite these advancements, a critical gap remains between conceptual frameworks and practical implementation. Existing studies tend to be polarized between normative discussions, which emphasize Sharia compliance and social objectives, and empirical analyses, which focus on institutional performance and financial outcomes. This fragmentation indicates the absence of a comprehensive and operational model that integrates both dimensions in a coherent system (Ascarya et al., 2020; Nour Aldeen et al., 2022).

A critical analysis of the literature identifies three major research gaps. First, the predominant focus on cash waqf has led to the underutilization of non-productive waqf assets, particularly land-based waqf, which constitutes a significant portion of waqf resources in countries such as Indonesia (Ascarya et al., 2020; Mubarak & Zainul, 2019). Second, methodological limitations persist, as many studies rely on descriptive or

conceptual approaches, thereby limiting their external validity and practical applicability (Hosen et al., 2022; Putra et al., 2023). Third, insufficient attention has been given to critical determinants such as transparency, public trust, institutional efficiency, and financial literacy, despite their central role in shaping stakeholder behavior and influencing the success of waqf-based financial instruments (Afifah & Iqbal, 2022; Ryandono et al., 2025; Berakon et al., 2022).

Furthermore, the existing body of literature rarely integrates advanced decisionmaking tools, such as the Analytical Network Process (ANP), with digital-based system design. This is a significant limitation, as the complexity of Sukuk Linked Waqf requires a multi-criteria decision-making approach capable of capturing interdependencies among institutional, financial, and behavioral factors (Rusydiana et al., 2023). In addition, the absence of digital integration reduces transparency, accountability, and scalability, which are essential for modern Islamic financial ecosystems (Nour Aldeen et al., 2022).

To address these gaps, this study proposes an innovative approach through the development of an Integrated Sukuk–Waqf Synergy Model (ISWSM), which combines ANP-based prioritization with a digital platform to enhance governance, transparency, and stakeholder coordination. This study also adopts the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework to ensure a systematic, transparent, and rigorous literature synthesis process. By bridging the gap between theory and practice, this research contributes to the advancement of Islamic social finance by offering a scalable and implementable model that integrates waqf and sukuk within a unified, technology-driven ecosystem.

METHODS

Research Design

This study adopts a quantitative approach based on expert judgment using the Analytic Network Process (ANP) method to analyze interrelationships among factors and determine priorities systematically. This approach is selected to identify, analyze, and prioritize the key factors influencing the management of Sukuk Linked Waqf in a comprehensive manner. In addition, this study develops a conceptual model and a digital-based system prototype known as the Integrated Sukuk–Waqf Synergy Model (ISWSM).

Time and Research Setting

This study is conducted in Indonesia, focusing on the national ecosystem of waqf and Islamic finance. Data collection is carried out during the period of 2024–2025 through literature review and interviews with relevant stakeholders.

Research Target/Subject

The research subjects consist of experts and practitioners who possess relevant expertise and experience in the fields of waqf and Islamic finance. The selected informants include:

1. Regulators: Badan Wakaf Indonesia (BWI), Otoritas Jasa Keuangan (OJK), and Dewan Syariah Nasional–Majelis Ulama Indonesia (DSN-MUI)
2. Islamic financial institutions: Bank Syariah Indonesia (LKS-BSI)
3. Islamic investors
4. Practitioners and academics in waqf and Islamic finance

The selection of informants is conducted using purposive sampling based on their expertise and relevance to the research topic.

Research Procedure

The research is conducted through the following stages:

1. Identification of research problems and determination of research focus
2. Literature review on productive waqf, sukuk, and Islamic social finance
3. Development of an initial conceptual model of Sukuk Linked Waqf
4. Data collection through interviews and expert judgment discussions
5. Data processing using the ANP method
6. Development of the ISWSM integrative model based on a digital platform

Instruments and Data Collection Techniques

The primary instrument used in this study is an ANP questionnaire designed to obtain pairwise comparison judgments from expert respondents. In addition, data are collected through in-depth interviews, document analysis, and Literature review. Data collection is conducted using a triangulation approach to enhance the validity and reliability of the research findings.

Data analysis technique

The data are analyzed using the Analytic Network Process (ANP) method with the assistance of Super Decisions software. The analysis consists of the following steps:

1. Constructing the network model
2. Defining criteria and sub-criteria (regulation, transparency, trust, efficiency, and
1. socialization)
2. Conducting pairwise comparisons based on expert judgments
3. Testing consistency using the Consistency Ratio (CR) with a threshold of ≤ 0.10
4. Calculating priority weights (priority vectors)
5. Synthesizing the results to determine dominant factors

The results of the ANP analysis serve as the basis for designing the ISWSM as an integrative and applicable model.

FINDINGS AND DISCUSSION

Findings

he findings of this study respond to the research objectives and are presented systematically based on the results of the Analytic Network Process (ANP). All pairwise comparison matrices meet the consistency requirement, with Consistency Ratio (CR) values below 0.10, indicating that the expert judgments are reliable and consistent.

The results of the ANP analysis identify five main criteria influencing the implementation of Sukuk Linked Waqf, namely transparency, regulatory support, public trust, institutional efficiency, and financial literacy. These criteria are ranked based on their priority weights, as presented in Table 1.

Table 1. Result of Data

Subject	Criteria	Description
Stakeholders (BWI, OJK, DSNMUI, LKS-BSI, Investors,	Transparency (0.26)	The most dominant factor, emphasizing accountability, disclosure, and reporting

Subject	Criteria	Description
Practitioners)		systems
Stakeholders	Regulatory Support (0.22)	Reflects the importance of legal framework and institutional regulation
Stakeholders	Public Trust (0.20)	Indicates the role of trust in influencing participation
Stakeholders	Institutional Efficiency (0.18)	Relates to operational performance and management capability
Stakeholders	Financial Literacy (0.14)	Represents public awareness and understanding of waqf instruments

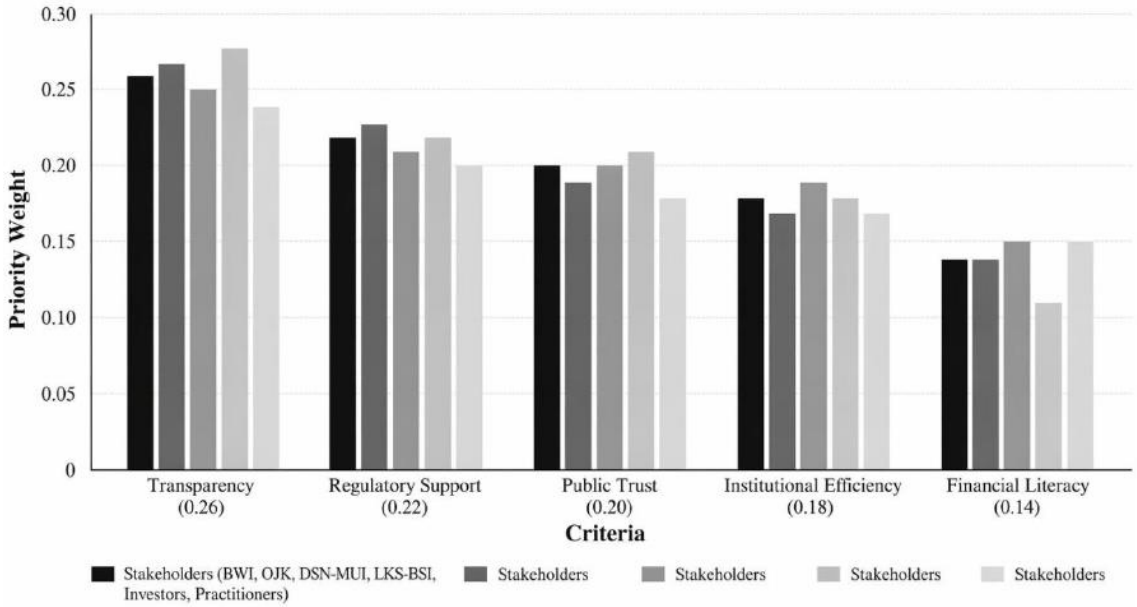

Figure 1. Prioritization of Criteria Based on Stakeholder Assessment

Discussion

The findings of this study are consistent with recent literature emphasizing the importance of governance and institutional quality in Islamic social finance. Transparency, identified as the most dominant factor, confirms that accountability and information disclosure are essential in building public trust and increasing participation in waqf-based financial instruments (Afifah & Iqbal, 2022; Hosen et al., 2022).

The significant role of regulatory support aligns with Institutional Theory, which highlights the importance of formal rules and institutional frameworks in shaping organizational behavior (Scott, 2004; North, 1990). In the context of Sukuk Linked Waqf, institutions such as BWI, OJK, and DSN-MUI play a crucial role in ensuring legal compliance, Sharia adherence, and governance standards.

Public trust, as the third-ranked factor, supports the perspective of Behavioral Finance Theory, which emphasizes that financial decisions are influenced by psychological and social factors (Thaler, 2016; Berakon et al., 2022). The findings indicate that trust is strongly influenced by transparency and institutional performance, rather than solely by religious motivation.

Furthermore, institutional efficiency and financial literacy, although ranked lower, remain important supporting factors. Their relatively lower weights suggest that improving

operational performance and public awareness alone is insufficient without strong governance and regulatory frameworks.

The integration of these factors into the ISWSM model demonstrates that a technology-based approach can enhance system effectiveness. Digital platforms can improve transparency through real-time reporting, strengthen trust through accessible information, and increase efficiency through automation. This finding is consistent with recent studies highlighting the role of financial technology in advancing Islamic social finance ecosystems (Nour Aldeen et al., 2022).

Overall, the results indicate that the success of Sukuk Linked Waqf depends on a comprehensive and integrated approach that combines governance, regulation, trust, and technology. The ISWSM model provides a practical framework to implement this integration and optimize the utilization of waqf assets in a sustainable manner.

CONCLUSION

This study examines the development of an Integrated Sukuk–Waqf Synergy Model (ISWSM) using a quantitative approach based on expert judgment through the Analytic Network Process (ANP). The findings reveal that all evaluation results satisfy the consistency requirement, with Consistency Ratio (CR) values below 0.10, indicating that the judgments are reliable and valid .

At the criteria (goal) level, the results indicate that trust is the most influential factor with a priority weight of 0.44663, followed by regulatory support (0.24282), transparency (0.17887), efficiency (0.08039), and socialization (0.05130) . This finding emphasizes that public trust is the primary determinant in the successful implementation of Sukuk Linked Waqf, as it directly influences stakeholder participation and system legitimacy.

At the sub-criteria level (limit matrix), the results show that cooperation among Islamic financial institutions (LKS) holds the highest priority (0.232241), followed by coordination (0.219599), waqf supervision (0.120346), and the strategic role of BWI (0.105875). Other supporting factors include adequate regulation (0.095293), competent human resources (0.087583), and ecosystem strengthening (0.080856), while transparency and accountability (0.029701) and socialization (0.028506) have relatively lower contributions .

These results indicate that the success of the ISWSM model is primarily driven by institutional trust, regulatory support, and inter-institutional collaboration, rather than solely by technical or informational factors. The dominance of cooperation and coordination highlights the importance of a collaborative ecosystem approach in integrating sukuk and waqf instruments effectively.

From a theoretical perspective, this study contributes to the literature on Islamic social finance by demonstrating that governance factors—particularly trust and institutional frameworks—play a more critical role than commonly assumed factors such as financial literacy or socialization. From a practical perspective, the findings suggest that policymakers and stakeholders should prioritize strengthening institutional trust, enhancing regulatory frameworks, and promoting collaboration among Islamic financial institutions.

In conclusion, the ISWSM model provides a comprehensive and implementable framework for optimizing waqf assets through sukuk integration. By leveraging a digital-based system, the model enhances transparency, efficiency, and coordination among stakeholders, thereby supporting sustainable socio-economic development in Indonesia.

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AUTHOR CONTRIBUTIONS

Muhammad Qodri contributed to conceptualization, methodology, data analysis using the Analytic Network Process (ANP), development of the Integrated Sukuk–Waqf Synergy Model (ISWSM), and manuscript writing. Immas Nurhayati contributed to literature review, validation, and critical revision of the manuscript. Hendri Tanjung contributed to supervision, theoretical framework development, and academic review. Nurul Huda contributed to data interpretation, editing, and final approval of the manuscript. All authors have read and approved the final version of the manuscript.

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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