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Innovative Financing Models for Agricultural Waqf: A Conceptual Framework for Optimizing Resources and Investments

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Abstract: *This article aims to build an understanding of the emerging analytical discussions appearing in the research published on the topic of waqf in agriculture context. Employing a thematic analysis approach, this research synthesizes secondary data sourced from peer-reviewed articles across major academic databases (Scopus, Web of Science, and Google Scholar), alongside official institutional reports to identify key themes related to Islamic financial instruments, digital financing platforms, institutional governance, and sustainability orientation in agricultural waqf management. The analysis reveals that agricultural waqf can be transformed from a passive charitable asset into a productive development instrument through the integration of cash waqf, sukuk, Islamic financing contracts, fintech-based crowdfunding, and strengthened nazhir governance. Building on these findings, the study develops a conceptual framework based on the Tawhidi String Relations (TSR) approach, which emphasizes ethical unity, interconnectedness, and circular causation between economic activities, social welfare, and environmental sustainability. The proposed framework positions agricultural waqf as a strategic asset capable of addressing financing constraints, land fragmentation, and food security challenges while supporting the achievement of the Sustainable Development Goals (SDGs). This study contributes to the literature by offering a value-driven and integrative perspective on agricultural waqf financing and provides insights for policymakers, waqf institutions, and Islamic finance practitioners in designing sustainable and Shariah-compliant financing mechanisms.*

Keywords: *Agricultural Waqf; Innovative Islamic Financing; Islamic Social Finance; Tawhidi String Relations (TSR); Sustainable Development Goals*

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INTRODUCTION

Islamic endowments designated for agricultural purposes and land development, known as agricultural waqf, represent a valuable mechanism for tackling issues related to food insecurity, economic problems, and environmentally sustainable progress. While this practice enjoyed considerable importance throughout history, its modern-day implementation encounters several obstacles.

These include the insufficient exploitation of endowed agricultural lands, inadequate professional oversight, and minimal incorporation of contemporary financing mechanisms (Ishak et al., 2025).

With its robust agricultural base, Indonesia possesses substantial potential to attain food self-reliance, especially in staple commodities such as rice. This goal is in line with the Ministry of Agriculture's strategic development framework for 2020–2024. Nevertheless, notwithstanding this potential, farmers in Indonesia face enduring structural challenges. Chief among these obstacles is insufficient access to financial resources, including banking services and credit options, coupled with poor management of agricultural supply chains. These constraints perpetuate a cycle of diminished farm productivity and yield, ultimately undermining the financial security and livelihood stability of agricultural communities in rural areas (Nurlianih & Amir, 2023).

Recent advancements in financial innovation, particularly within Islamic finance and digital platforms, offer new opportunities to reinvigorate the role of agricultural waqf—a historically significant but underutilized mechanism in Islamic socioeconomic development. This study seeks to examine these emerging financing models, evaluate their effectiveness, and propose a conceptual framework that is both Shariah-compliant and aligned with contemporary financial best practices (Mohd Thas Thaker, 2018).

Waqf play an important role in establishing a civilization that is full of moral character (Baqutayan et al., 2018). Traditionally employed to finance essential public services such as mosques, schools, and hospitals, waqf has also encompassed agricultural assets, ranging from farmland and plantations to irrigation infrastructure. Agricultural waqf refers specifically to endowments made in the form of land or other agricultural resources, intended to yield sustainable, long-term benefits for societal well-being. Furthermore, such waqf played a significant role in promoting food security, empowering farmers, and fostering resilient local economies (Yasin, 2021).

However, in recent decades, the role of agricultural waqf has diminished considerably. Many waqf lands remain unproductive due to suboptimal management (Setiawan et al., 2023). Traditional financing mechanisms have limited the development of waqf assets (ALSAWADY et al., 2023). This underutilization presents a paradox, especially in the context of ongoing global crises related to food insecurity, climate change, and widening economic disparities.

In the case of Indonesia, the potential for revitalizing agricultural waqf is significant. Table 1 below summarizes key dimensions of this potential, based on recent empirical studies and institutional reports. Notably, more than 4.9 million m^2 of registered waqf land is designated for agricultural use, yet much of it remains idle or underperforming. Moreover, over 50% of these lands lack formal legal certification, and only a small proportion of nazhir (waqf managers) possess the managerial capacity to develop such assets productively (Zheng et al., 2022).

Table 1. Agricultural Waqf Potential in Indonesia

Aspect of Potential	Description	Selected References
Registered Waqf Land Area	Approx. 4.9 million m² of waqf land categorized as agricultural but mostly underutilized.	(Badan Wakaf Indonesia, 2022; Nasution & Aris, 2020)
Geographic Distribution	Concentrated in rural areas across Java, Sumatra, and Sulawesi.	(Luik et al., 2021)
Legal Certification	Over 51% of agricultural waqf lands are uncertified, lacking official waqf registration.	(Ministry of Agrarian Affairs and Spatial Planning / National Land Agency (ATR/BPN), 2025; Prasetyo et al., 2025)
Land Suitability	Most lands are agroecologically suitable for staple food and horticulture production.	(Majid, 2022)
Nazhir Capacity	Less than 30% of waqf managers have sufficient managerial or entrepreneurial capacity.	(Abiba & Suprayitno, 2024; Mutiara et al., 2021)
Productive Conversion Potential	Estimated 70–80% of underutilized waqf lands are convertible into modern productive agricultural projects.	(Fitrianto et al., 2022; Sofyan & Sofyan, 2023)
Islamic Financial Support	Increasing interest from Islamic financial institutions to finance waqf-based micro-agriculture.	(Majid, 2022; Taqwiem & Rachmadi, 2023)

These figures underscore the untapped potential of agricultural waqf as a strategic instrument for food security, rural development, and inclusive growth. If integrated with modern Islamic financial instruments such as sukuk, Islamic microfinance, takaful, and crowdfunding, agricultural waqf could become a catalyst for sustainable and ethical transformation in the agricultural sector (Yasin, 2021).

Previous studies have actively explored various financing models to revitalize agricultural waqf. For instance, Majid (2021) and Majid & Sukmana (2023) highlighted the integration of Islamic commercial contracts, such as *salam* and *muzāraʿah*, with cash waqf to mitigate production risks. Meanwhile, Yunita (2021) and Taqwiem & Rachmadi (2023) emphasized the potential of Cash Waqf Linked Sukuk (CWLS) in mobilizing large-scale public funds for sustainable agriculture and food security. Furthermore, recent literature has begun to examine the role of digital platforms, such as fintech and blockchain, in enhancing the transparency and accessibility of waqf-based agricultural financing (Indriani & Nur, 2025; Yusof, 2024).

Despite these scholarly advancements, a critical research problem remains existing models often treat agricultural waqf financing as isolated mechanical instruments, lacking an integrative philosophical and operational framework. Most of the current literature focuses heavily on the socio-economic outputs while underexploring the holistic integration of ethical governance, environmental sustainability, and interconnected stakeholder roles. Consequently, there is a prominent disconnect between the massive potential of agricultural waqf assets and the fragmented financing mechanisms available, preventing waqf from optimally addressing structural issues like land fragmentation and persistent food insecurity.

Therefore, to address this problem, the conceptual framework of Tawhidi String Relations (TSR), developed by Professor Masudul Alam Choudhury, offers an epistemic foundation to advance this transformation. TSR is grounded in the ontological unity of knowledge and reality (tawhid), operationalized through circular causation among ethics, economics, and the environment. Within this perspective, agricultural waqf transcends its functional role and becomes an embodiment of ethical economic behavior aimed at fulfilling divine purpose. Such a framework facilitates not only the material improvement of agricultural systems but also the spiritual alignment of socioeconomic development with the principles of Islamic sustainability and justice (Nugroho et al., 2020).

Despite the historical and ethical significance of waqf, its application in the agricultural sector remains limited and fragmented. Most waqf institutions face constraints such as lack of funding, weak institutional capacity, unclear legal frameworks, and limited innovation. Consequently, waqf lands are often idle or mismanaged, failing to contribute to food production, rural development, or poverty alleviation (Al-Daihani et al., 2024).

Furthermore, there exists a disconnect between traditional waqf administration and modern financial practices. This gap prevents waqf institutions from accessing capital markets, leveraging digital tools, or forming productive partnerships with agricultural stakeholders. Without innovative financing approaches that align with Islamic principles, the transformative potential of agricultural waqf cannot be realized (Shulthoni & Saad, 2018).

This research investigates novel financing frameworks for agricultural waqf, incorporating Islamic financial tools and digital technologies. We examine the potential for nazhir (waqf administrators), financial entities, and other participants to optimize resource utilization. The study formulates a theoretical structure for sustainable financing of agricultural waqf through the TSR methodology. This scholarship contributes to the ongoing discourse surrounding the integration of Islamic social finance with sustainable development objectives.

This research offers two main contributions. Theoretically, it enriches the Islamic social finance literature by proposing a novel integration of the Tawhidi String Relations (TSR) framework into agricultural waqf financing, thereby filling the conceptual gap between ethical governance and financial innovation. Practically, the proposed framework serves as a strategic blueprint for policymakers, waqf managers (nazhir), and Islamic financial practitioners to design, regulate, and implement sustainable, Shariah-compliant agricultural financing mechanisms. Ultimately, this research aspires to reignite the role of waqf as a transformative instrument for achieving economic justice, food security, and environmental stewardship within the Islamic worldview.

RESEARCH METHODS

This study adopts a qualitative conceptual research design using a thematic literature review approach. This design is appropriate for synthesizing existing knowledge, identifying dominant conceptual patterns, and developing an integrative framework for innovative agricultural waqf financing. Thematic literature reviews are widely used in management and social science research, particularly for theory development and framework construction (Paul & Criado, 2020; Snyder, 2019)

The analysis draws on a corpus of scholarly literature comprising peer-reviewed journal articles, academic books, and institutional reports. To ensure a rigorous and reproducible extraction process, the literature was identified through a structured search utilizing major academic databases, primarily Scopus, Web of Science, and Google Scholar. The search strategy employed specific keyword combinations, such as ("agricultural waqf" OR "productive waqf") AND ("innovative financing" OR "Islamic social finance" OR "fintech"). Following a purposive selection strategy based on conceptual relevance, publication recency (focusing on the last five to ten years), and theoretical contribution, a final total of 42 selected articles and reports were retained for the thematic analysis. This structured approach ensures analytical depth while maintaining coherence with the thematic focus of the study (Paul & Criado, 2020).

Data collection involved systematic reading and documentation of the selected literature. The collected materials were subsequently analyzed using thematic analysis, following an iterative process of familiarization, coding, theme development, and synthesis (Braun & Clarke, 2021). The identified themes were then interpreted using the Tawhidi String Relations (TSR) framework as an analytical lens. TSR emphasizes the unity of knowledge (*tawhid*) and circular causation among ethical, economic, social, and environmental dimensions, enabling the integration of normative values with practical financing mechanisms (Choudhury, 2019)

This study is conceptual in nature and does not involve primary empirical data. Consequently, the findings are intended to provide theoretical insights and policy-relevant implications rather than empirical generalizations. Future research may empirically examine the proposed framework through case studies or quantitative analysis to enhance its practical applicability (Snyder, 2019)

RESULTS AND DISCUSSION

Based on the thematic analysis of the 42 selected articles, this study identifies several interrelated themes that directly address the core objectives outlined in the introduction. Specifically, the extracted themes systematically examine the potential for nazhir (waqf administrators), financial entities, and other participants to optimize resource utilization through innovative financing mechanisms. Furthermore, these themes serve as the foundational building blocks to formulate a theoretical structure for the sustainable financing of agricultural waqf through the Tawhidi String Relations (TSR) methodology. These conceptual patterns emerge consistently across the literature (Paul & Criado, 2020; Snyder, 2019) and are elaborated in the subsequent sections.

Innovative Financing Models for Agricultural Waqf

Innovative financing models for agricultural waqf increasingly incorporate Islamic financial instruments and digital platforms to address structural challenges in the agricultural sector, particularly limited access to capital, financial exclusion, and sustainability constraints. The literature indicates that these models aim to enhance financial inclusion, improve access to affordable financing for farmers, and promote sustainable agricultural practices by integrating Islamic finance principles with modern financial technologies. Through this integration, agricultural waqf is repositioned from a passive charitable asset into a productive and impact-oriented financing mechanism.

One prominent model identified in the literature is the Salam-Muzāraʿah linked waqf model, which integrates Islamic commercial finance contracts with Islamic social finance instruments. This model combines *salam* and *muzāraʿah* contracts with cash waqf returns and idle waqf land to support agricultural production. Implemented by institutions such as *Baitul Maal wat Tamwil* (BMT), the model mitigates production and price risks by subsidizing or temporarily absorbing commodities delivered by farmers. In this arrangement, surplus returns from cash waqf are utilized to cover *murābaḥah* margins for essential agricultural equipment, thereby reducing financing costs for farmers and enhancing production sustainability (Majid, 2021).

Another widely discussed approach is cash waqf-based agricultural financing, which emphasizes low-cost financing mechanisms tailored to farmers facing financial hardship. This model employs *muḍārabah–salam* and *ijārah* schemes, supported by structured risk mitigation strategies such as feasibility assessments, *takāful* or guarantee schemes, and financial restructuring mechanisms. The literature suggests that this model not only improves farmers' access to capital but also contributes to broader objectives such as farmer welfare enhancement and national food security, particularly when off takers are facilitated to purchase crops at competitive prices (Majid & Sukmana, 2023)

The literature also highlights the growing role of fintech and digital platforms in enhancing agricultural waqf financing. Fintech innovations, including artificial intelligence and blockchain technology, are increasingly applied to waqf management to improve transparency, efficiency, and accountability. Platforms such as the *Waqf Analytics Platform* provide predictive analytics, resource optimization, and impact assessment tools, while AI-based fundraising mechanisms and smart contracts enhance governance and donor trust (Yusof, 2024). In addition, blockchain-integrated Sharia-compliant peer-to-peer lending platforms, such as *Taguvestasi*, bridge the financing gap between farmers and investors by ensuring secure transactions and promoting sustainable agricultural practices (Indriani & Nur, 2025).

Another innovative mechanism discussed in the literature is the integration of sukuk and waqf, particularly through the *Cash Waqf Linked Sukuk* (CWLS) model. CWLS combines Islamic social finance instruments with government sukuk to support food security initiatives. Funds collected through waqf contracts are allocated to agricultural activities, with an emphasis on improving productivity and producing high-quality agricultural outputs (Yunita, 2021) Furthermore, sukuk-based financing empowers waqf institutions by mobilizing large-scale resources for social welfare and development projects, although regulatory and operational challenges remain significant factors influencing their effectiveness (Afrina, 2024).

Beyond instrument-based financing, the literature emphasizes the importance of value chain financing and blended finance mechanisms in agricultural waqf development. These approaches improve access to credit and investment across the agricultural value chain, reduce non-performing loan rates, and increase household income. Digital lending platforms are found to be particularly effective in reaching young farmers, underscoring the importance of coordination among agribusiness actors, financial institutions, and waqf managers to ensure sustainable outcomes (Widi et al., 2025).

Despite their significant potential, the literature consistently notes several challenges in implementing innovative agricultural waqf financing models. Key concerns include data privacy risks, Shariah compliance issues, and the high costs associated with technology integration. In addition, existing regulatory frameworks often lag technological and financial innovation, limiting the scalability and institutionalization of these models. Addressing these challenges is crucial for fully realizing the role of innovative financing models in promoting sustainable agricultural development, strengthening financial inclusion, and advancing the objectives of Islamic social finance.

Institutional Roles and Stakeholder Collaboration in Optimizing Agricultural Waqf

The literature consistently emphasizes that the optimization of agricultural waqf resources depends heavily on the roles and interactions of key institutional actors, particularly *nazhir* (waqf managers), Islamic financial institutions, government bodies, and community-based organizations. These stakeholders collectively shape governance quality, resource allocation, and the overall socio-economic impact of waqf initiatives. Effective collaboration among these actors enables waqf assets to be transformed from static charitable holdings into productive instruments that support sustainable development objectives.

Nazhir plays a central and strategic role in waqf management, as they are directly responsible for ensuring that waqf assets are utilized in accordance with Shariah principles while simultaneously generating social and economic benefits. The literature indicates that effective and professional management by nazhir can significantly enhance the transformation of waqf into a productive economic institution, particularly when waqf assets are allocated to income-generating activities (Gunawan et al., 2022). In the context of cash waqf and Cash Waqf Linked Sukuk (CWLS), nazhir adopt investment strategies targeting productive sectors such as rental equipment, agricultural ventures, and farm-based investments. The returns from these activities are subsequently channeled into priority social sectors, including education, economic empowerment, and health services (Ashfahany & Lestari, 2023). Studies further suggest that professional, innovative, and transparent governance practices implemented by nazhir improve accountability and stakeholder trust, thereby amplifying the social welfare impact of waqf institutions (Wibowo et al., 2025).

In addition to nazhir, Islamic financial institutions play a supportive yet crucial role in enhancing the economic effectiveness of waqf. Institutions such as

Micro Waqf Banks provide Sharia-compliant financing to low-income communities, fostering financial inclusion and supporting the growth of micro- and small-scale enterprises (Sumarti & Susetyo, 2025). Comparative studies from countries such as Malaysia and Turkey demonstrate that waqf banks have successfully financed social and developmental projects, illustrating the potential benefits of integrating waqf mechanisms with modern Islamic banking systems (Jaharuddin & Muhibuddin, 2025). These findings highlight the importance of financial intermediaries in mobilizing resources, managing risks, and scaling up the impact of waqf-based initiatives.

The role of other stakeholders, particularly government bodies and community organizations, is equally significant in shaping an enabling environment for waqf optimization. Regulatory authorities, such as the Indonesian Waqf Board, are instrumental in establishing governance frameworks, standardizing management practices, and ensuring compliance with legal and Shariah requirements (Wibowo et al., 2025). Meanwhile, large community organizations such as Muhammadiyah and Nahdlatul Ulama actively engage in innovative waqf management practices, including digitalization initiatives and capacity-building programs aimed at improving economic welfare at the grassroots level (Ristawati & Makhrus, 2025). The literature underscores that active stakeholder engagement is essential for overcoming governance challenges and enhancing the social and economic contributions of waqf institutions (Himmawan et al., 2025).

Regarding optimization strategies, the literature identifies strategic planning, digital innovation, and productive fund allocation as key determinants of successful waqf management. Institutions that implement transparent and accountable governance structures are more effective in channeling waqf funds toward income-generating activities with measurable socio-economic outcomes (Syahran & Alzahira, 2025). Furthermore, an integrated approach involving Islamic financial institutions, zakat bodies, and waqf organizations is found to optimize fund management, stimulate local economic growth, and contribute to poverty alleviation (Al Anshari, 2023). The adoption of digital records and smart contracts further enhances management efficiency, transparency, and community engagement, although challenges related to digital infrastructure and technological readiness remain prevalent (Ristawati & Makhrus, 2025).

Despite the clearly defined roles of nazhir, financial institutions, and other stakeholders, the literature acknowledges persistent challenges, including regulatory gaps, technological limitations, and the need for continuous capacity building. Addressing these challenges requires sustained collaboration among stakeholders, targeted investment in digital infrastructure, and adaptive regulatory frameworks. By strengthening institutional coordination and governance quality, agricultural waqf can more effectively function as a tool for sustainable economic development and social welfare enhancement.

Tawhidi String Relations (TSR)-Based Conceptual Framework for Agricultural Waqf Financing

The thematic literature review indicates that a Tawhidi String Relations (TSR)-based conceptual framework provides a holistic foundation for sustainable agricultural waqf financing by integrating Islamic financial principles with modern agricultural practices. The TSR approach emphasizes unity, interconnectedness, and circular causation among ethical values, economic activities, and social outcomes. Within this framework, waqf is positioned as a strategic asset capable of addressing persistent challenges in the agricultural sector, including financing constraints, land fragmentation, and food security, while remaining aligned with Islamic values and sustainability objectives. Figure 1 illustrates the TSR-based conceptual framework for sustainable agricultural waqf financing developed in this study.

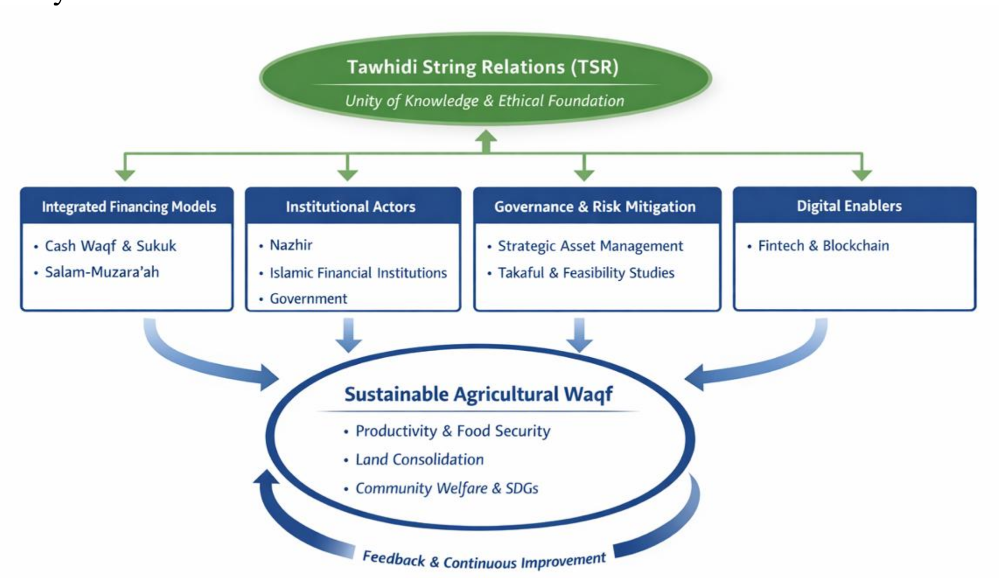

Figure 1. TSR-Based Conceptual Framework for Sustainable Agricultural Waqf Financing

A key component of the proposed framework is the development of integrated financing models that combine Islamic social finance with commercial Islamic financial instruments. The literature highlights the role of *cash waqf linked with sukuk* as a sustainable financing mechanism for agricultural development. This model enables the allocation of waqf funds to support agricultural infrastructure, skills development, and the procurement of farming tools, providing financial assistance without imposing additional financial burdens on farmers and thereby reinforcing the social objectives of waqf (Taqwiem & Rachmadi, 2023). In parallel, the *Salam–Muzāraʿah linked waqf* model integrates Islamic commercial contracts with social finance instruments by utilizing cash waqf returns and idle waqf land for productive agricultural activities. Through contracts such as *salam* and *muzāraʿah*, this model facilitates agricultural financing while mitigating production and price risks inherent in the sector (Majid, 2022).

Effective governance and risk mitigation mechanisms constitute another essential pillar of the TSR-based framework. The literature underscores the importance of transitioning waqf management from a predominantly charity-oriented model toward a strategic asset governance approach. This transition involves the implementation of robust governance structures, accountability mechanisms, and innovative management practices to preserve and enhance the long-term value of waqf assets (Zainal et al., 2025). Complementing these governance arrangements, risk mitigation strategies—such as comprehensive feasibility studies, *takāful* schemes, and financial restructuring mechanisms—are identified as critical tools for ensuring efficient utilization of waqf funds and protecting farmers against potential financial losses (Majid & Sukmana, 2023).

The TSR-based framework also addresses the issue of land fragmentation, which poses a significant challenge to sustainable agricultural development. The literature suggests that waqf can function as an effective land management strategy by preserving agricultural land as a single, indivisible entity. This characteristic of waqf enables long-term planning, coordinated investment, and improved land productivity, thereby supporting sustainable agricultural growth and reducing inefficiencies associated with fragmented land ownership (Al-Tulaibawi et al., 2024).

In terms of food security, the reviewed studies emphasize the strategic role of waqf in stabilizing agricultural production and prices. A waqf-based framework can support food security initiatives by facilitating stable rice production and price stabilization through the establishment of commercial subdivisions that shorten agricultural supply chains. Such arrangements allow the distribution of benefits to both farmers and consumers, contributing to improved national food security outcomes (Wildana & Alhabshi, 2018). Furthermore, optimizing waqf land through legal reforms, public–private partnerships, and the adoption of modern agricultural technologies enhances the capacity of waqf institutions to support food security programs while aligning with national agricultural policies and sustainability goals (Yusoff et al., 2025).

Overall, the TSR-based conceptual framework offers a comprehensive and value-driven approach to sustainable agricultural waqf financing by integrating ethical principles, financial innovation, and strategic asset management. However, the literature also cautions that the effectiveness of this framework depends on addressing challenges such as mismanagement, institutional capacity gaps, and resource constraints within waqf institutions. Strengthening governance quality, enhancing community participation, and leveraging digital innovation are therefore essential to ensuring that the TSR-based framework remains operationally viable and aligned with broader socio-economic development objectives (Munir, 2025).

Agricultural Waqf, Sustainability, and the Sustainable Development Goals (SDGs)

Building upon the TSR-based conceptual framework developed in the previous section, the literature highlights that the integration of Islamic social finance, particularly waqf, with sustainable development objectives offers a strategic pathway for advancing the Sustainable Development Goals (SDGs). Islamic social finance is grounded in principles of fairness, justice, and equity, which are inherently aligned with the SDGs' overarching aim of addressing socio-economic disparities and environmental challenges. Within this context, waqf functions as a value-driven financial instrument capable of translating ethical and religious principles into tangible development outcomes, especially in sectors critical to sustainability such as agriculture.

The role of waqf in sustainable development is particularly evident in its capacity to support long-term infrastructure and empowerment-oriented projects without imposing additional financial burdens on beneficiaries. Productive waqf mechanisms enable sustained investment in agricultural infrastructure, farming inputs, and capacity-building initiatives, thereby strengthening food security and promoting sustainable agricultural practices (Aini & Kamilah, 2025; Akhir et al., 2025). The literature further demonstrates that integrating waqf with Islamic agricultural contracts, such as musāqah, enhances shared production arrangements and risk-sharing mechanisms. Empirical evidence from ASEAN countries suggests that such models contribute significantly to food security outcomes, directly supporting SDG targets related to zero hunger and poverty alleviation (Akhir et al., 2025).

More broadly, studies emphasize that Islamic social finance instruments, including waqf, zakat, and sadaqah, represent effective tools for advancing multiple SDGs. These instruments address funding gaps in development financing, particularly in the post-pandemic context where public and private resources remain constrained (Dirie et al., 2024; Notolegowo et al., 2023). The alignment between Islamic finance principles and the SDGs is reflected in their shared emphasis on social welfare, ethical investment, and inclusive economic growth. By prioritizing socially responsible and impact-oriented financing, Islamic social finance supports sustainable development pathways that balance economic objectives with social justice considerations (Hassan et al., 2025; Jedidia & Ghroubi, 2025).

Despite this strong alignment, the literature also identifies several challenges and research gaps that limit the full realization of waqf's contribution to sustainability. A recurring concern is the limited focus on environmental dimensions within Islamic social finance research, as most existing studies emphasize socio-economic outcomes while underexploring ecological sustainability (Ma & Sukmana, 2025). This imbalance highlights the need for a more integrative research agenda that incorporates environmental impact assessment within waqf-based development models, particularly in the agricultural sector where environmental sustainability is inseparable from long-term productivity.

In addition, the geographical concentration of Islamic social finance research in countries such as Indonesia and Malaysia suggests opportunities for broader global engagement. Expanding empirical and conceptual studies to include diverse regions and institutional contexts would enhance the inclusivity, scalability, and global relevance of waqf-based sustainability initiatives (Dirie et al., 2024; Ma & Sukmana, 2025). Such expansion is consistent with the TSR-based framework's emphasis on interconnectedness and universality, reinforcing the applicability of Islamic social finance principles beyond predominantly Muslim societies.

Overall, the literature supports the argument that agricultural waqf, when operationalized through a TSR-based conceptual framework, can serve as a strategic instrument for advancing sustainable development and achieving the SDGs. However, maximizing this potential requires addressing governance, environmental, and contextual challenges through continued innovation, interdisciplinary research, and cross-sector collaboration. By doing so, waqf can be more effectively positioned as a globally relevant mechanism for sustainable agricultural development and social welfare enhancement.

CONCLUSION

This study demonstrates that agricultural waqf has significant potential to function as a strategic instrument for sustainable development beyond its traditional charitable role. The findings highlight that the integration of innovative financing mechanisms, including Cash Waqf Linked Sukuk, Salam–Muzara'ah contracts, and fintech-based crowdfunding, with professional waqf governance can strengthen agricultural productivity, reduce production risks, and address structural challenges such as land fragmentation and food insecurity. Furthermore, this study develops a conceptual framework based on the Tawhidi String Relations methodology, which integrates financial innovation, institutional governance, and Islamic ethical principles into a holistic system that promotes equitable wealth distribution and supports the achievement of sustainable development goals.

From a practical perspective, the proposed framework provides strategic guidance for policymakers and waqf institutions in enhancing governance capacity, adopting digital innovation, and fostering multi-stakeholder collaboration within the Islamic finance ecosystem. Nevertheless, as this study is conceptual in nature, the framework requires empirical validation across different institutional and geographical contexts. Future studies are therefore encouraged to employ qualitative, quantitative, or mixed method approaches to examine the applicability of the model and to incorporate environmental dimensions, such as climate resilience and water management, to strengthen the sustainability impact of agricultural waqf.

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