

THE ROLE OF WAQF IN EDUCATION: CHALLENGES, BARRIERS, AND FUTURE PROSPECTS

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Abstract

*Waqf has gained renewed attention as an alternative mechanism for financing education in Muslim-majority contexts, yet its practical implementation and developmental impact remain fragmented and underutilized. This systematic literature review explores the contemporary role of waqf in addressing educational financing challenges, structural barriers, and quality outcomes. Despite its roots in Islamic philanthropy, mainstream education systems have yet to fully integrate waqf, which could provide significant financial support and innovative solutions to educational financing challenges. This review aims to synthesize recent scholarly insights to better understand its current applications and future potential. A comprehensive search was conducted using Scopus and Web of Science databases, focusing on articles published between 2023 and 2025. The selection process followed the PRISMA framework, resulting in 13 eligible studies for final analysis. The findings were thematically categorized into three areas: (1) Waqf and Islamic Financing, which examines innovative models such as environmental waqf, digital crowdfunding, and inheritance-based donations; (2) Barriers to Education Funding, which identifies institutional limitations, regulatory fragmentation, gender disparities, and financial exclusion as key obstacles; and (3) Education Quality and Outcomes, which highlights the influence of waqf in vocational training, inclusive pedagogy, and learner-centered delivery models. The review shows that waqf projects can be flexible and fit with *maqāsid al-sharī'ah*, but their overall effect is often limited by poor governance, a lack of financial literacy, and a lack of policy integration. However, emerging pathways for improved transparency, scalability, and alignment with educational priorities exist in frameworks such as national waqf indexes and technology-driven platforms. This review concludes that if waqf is managed well and used wisely, it can provide a lasting and suitable solution to the challenges of funding and fairness in modern education.*

Keywords: Waqf in Education, Islamic Social Finance, Education Funding Barriers, Educational Equity, Waqf.

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INTRODUCTION

Waqf, or Islamic endowment, has historically played a pivotal role in supporting educational development across Muslim societies, serving as a sustainable and Shariah-compliant funding mechanism for schools, universities, and community learning initiatives. Recently, the significance of waqf in education has intensified, particularly in regions with limited government resources and growing educational needs. For example, in Nigeria, waqf is increasingly recognized as an innovative strategy to bridge funding gaps in primary education, offering a legitimate and culturally resonant source of support for critical infrastructure and operational needs (Fika Muhammad et al., 2024). Similarly, in Northern Nigeria, waqf institutions are considered a practical, long-term solution to address educational disparities caused by poverty, cultural norms, and underfunded systems, with successful models from other Muslim countries providing valuable lessons for local adaptation (Muhammad et al., 2024). In Indonesia, the use of waqf to manage education has helped create lasting institutions such as pesantren and universities, where a focus on values and the concept of human waqf (contributions from skilled individuals) has successfully improved education quality and supported community growth (Cahyo, 2023).

Despite these successes, the optimal utilization of waqf in education faces several significant challenges and barriers. Regulatory confusion, no common rules for managing waqf, and poor public knowledge, especially about cash waqf, make it challenging to gather and use resources effectively (Lestari et al., 2023; Muhaimin, 2023; Nawawi et al., 2024). In some cases, a lack of skilled management and internal controls has led to inefficiencies and mismanagement, undermining the sustainability and impact of waqf-funded educational initiatives (Cahyo, 2023; Ikhsan & Janah, 2023). Socioeconomic factors such as poverty, insecurity, and cultural resistance further complicate efforts to expand the reach of waqf in education, particularly in rural and underprivileged communities (Muhammad et al., 2024).

If we can address these barriers through strategic reforms, the future prospects for waqf in education are promising. Strengthening regulatory frameworks, enhancing public education and awareness, and fostering collaboration among stakeholders are essential steps to unlock the full potential of waqf (Lestari et al., 2023; Nawawi et al., 2024). The adoption of transparent governance, values-based management, and the professionalization of waqf administration can further enhance the sustainability and effectiveness of waqf institutions (Cahyo, 2023; Ikhsan & Janah, 2023). Successful experiences from countries such as Indonesia, Turkey, and Egypt demonstrate that with effective governance and community engagement, waqf can significantly contribute to educational advancement and social development (Cahyo, 2023; Majid, 2023). Thus, while challenges remain, waqf stands as a powerful tool for building inclusive, high-quality, and sustainable education systems in the years ahead.

METHODOLOGY

This study utilizes the PICO framework (Kitchenham, 2007; Lockwood et al., 2015) to direct its systematic literature review and is based on the following research questions:

- How do Islamic educational institutions utilize waqf as an Islamic financing mechanism to support sustainable education development in Muslim-majority countries?

- What are the structural and operational barriers faced by underfunded educational institutions in implementing waqf-based funding within socio-economic and legal constraints in developing nations?
- To what extent do waqf contributions influence the quality of education and learning outcomes for students in contemporary Islamic education systems?

This study followed key steps in the systematic review process, starting with the selection of keywords and related terms from dictionaries, thesauri, and prior research, then creating search strings for Scopus as well as WoS (Table 1).

Table 1: The search string.

Scopus	TITLE-ABS-KEY (("wakaf" OR "waqf" OR "endowment") AND ("education" OR "learning" OR "teaching" OR "scholarship") AND (challenges OR issues OR barriers OR obstacles OR difficulties OR problems OR hindrances) AND (opportunities OR prospects OR potential OR benefits OR advantages OR possibilities)) AND PUBYEAR > 2022 AND PUBYEAR < 2026 AND (LIMIT-TO (LANGUAGE, "English")) AND (LIMIT-TO (PUBSTAGE, "final")) AND (LIMIT-TO (OA, "all"))
WoS	TS=(("wakaf" OR "waqf" OR "endowment") AND ("education" OR "learning" OR "teaching" OR "scholarship") AND (challenges OR issues OR barriers OR obstacles OR difficulties OR problems OR hindrances) AND (opportunities OR prospects OR potential OR benefits OR advantages OR possibilities)) and 2025 or 2024 or 2023 (Publication Years) and Article (Document Types) and All Open Access (Open Access)

BACKGROUND

Waqf (Islamic endowment) plays an increasingly critical role in supporting education across Muslim-majority regions. As an Islamic financial instrument, waqf is positioned to fund various educational needs, from infrastructure to scholarships. In nations such as Saudi Arabia and Indonesia, waqf-based investment funds have been allocated to enhance student housing, facilitate learning accessibility, and promote community-based education (Elmahgop et al., 2025; Maulina et al., 2024). The Indonesian experience also shows innovation in mobilizing cash waqf via Islamic banks, prioritizing education as a key sector despite facing limitations such as public mistrust and low waqf literacy (Mangunjaya, 2023; Maulina et al., 2024). However, while these examples demonstrate the ability of waqf to enhance educational outcomes, institutional fragmentation and behavioral inconsistencies remain substantial barriers to its effective use.

Key challenges arise from weak governance structures, limited donor confidence, and inconsistent motivation among different socio-economic groups. The lack of transparency in waqf fund management often deters participation, especially from middle-income Muslim communities whose giving behaviors are influenced by varied psychological and financial factors (Maulina et al., 2025). Moreover, there is a general absence of innovation in waqf structuring, and insufficient support mechanisms prevent entrepreneurial uses of waqf funds (Elmahgop et al., 2025). These factors, combined with poor digital adoption and fragmented oversight, constrain the scaling of waqf to meet national education goals (Ramadhan & Hayatullah, 2025). Consequently, waqf institutions often fail to reach their intended beneficiaries, particularly in underserved rural areas where educational needs are

most pressing. Education-focused waqf must be tailored to local community characteristics. Behavioral segmentation studies in Indonesia show that while some donors prefer traditional endowment roles, others are more inclined to act as investors in social returns (Maulina et al., 2025). Such variations necessitate market-based instruments that align with specific donor profiles, such as tailored financial products that cater to both traditional endowment roles and those seeking social returns on their investments. Likewise, waqf-linked sukuk in Indonesia, such as cash waqf-linked sukuk (CWLS), offer structured avenues for national educational investment, yet their effectiveness is tied closely to public awareness and institutional collaboration (Maulina et al., 2024). Integration with Islamic finance policies, like Saudi Vision 2030 or Indonesia's finance roadmap, illustrates a pathway forward, provided policy frameworks are inclusive and transparent.

Digital transformation is essential in improving waqf's role in education. Technology enhances transparency, increases public participation, and supports grassroots planning (Ramadhan & Hayatullah, 2025). In regions with limited infrastructure, digital platforms can facilitate equitable access to education through waqf, which refers to charitable endowments in Islamic law that can be used to fund educational initiatives and resources. Higher community education levels have also been shown to correlate with improved waqf asset management, such as in the governance of waqf forests (Candra et al., 2024). Training programs, particularly for underserved learners, further demonstrate how capacity building can enhance the impact of waqf-funded education (Woolvine, 2024). These cases confirm that education and waqf mutually reinforce one another, effective educational interventions increase waqf's utility, and in turn, waqf supports continued learning.

Socio-economic inequalities further restrict the transformative potential of waqf. Structural barriers, such as gender disparities and displacement, limit access to waqf benefits even when educational resources are available. Studies from Kenya and Darfur highlight how wage gaps and institutional discrimination affect educational returns for women and displaced individuals (Alwago, 2024; Stojetz & Brück, 2024). Without targeted waqf mechanisms, these populations remain excluded from their benefits. The absence of formal systems and policy coherence similarly hinders waqf's effectiveness in supporting orphanages or vulnerable groups (Mahmudi et al., 2024). Hence, aligning waqf structures with inclusive educational policies and Islamic legal principles is critical to achieving equitable outcomes. Looking ahead, future prospects for waqf in education depend on strategic planning, policy integration, and institutional innovation. Embedding Islamic philanthropic values into state education frameworks, while adopting digital crowdfunding and monitoring tools, can help mobilize long-term support (Khairuddin & Ishak, 2023; Simpson, 2023). However, we must carefully design these efforts to prevent inflated expectations and maintain accountability. Empirical evaluations, like pilot-tested waqf models, are essential for sustained educational impact (Simpson, 2023). With inclusive digital platforms and responsive governance, waqf can evolve from a fragmented charity mechanism into a structured driver of educational justice, particularly for disadvantaged communities in the Global South.

In conclusion, waqf presents a strategic opportunity to enhance educational equity and infrastructure in Muslim-majority societies. Nevertheless, realizing its full potential demands a multidimensional approach that addresses governance, digital integration, donor segmentation, and socio-economics. By aligning Islamic philanthropic principles with modern institutional frameworks and inclusive policies, waqf can be transformed into a sustainable instrument for advancing quality

education for all.

METHODOLOGY

The PRISMA framework, recognized for promoting transparency and uniformity in systematic reviews, was employed to guide the selection process in this study (Page et al., 2021). Initially, a total of 382 records were identified—269 from Scopus and 113 from the Web of Science (WoS) (refer to Figure 1). The first screening phase involved applying exclusion criteria related to language, publication year, document type, and publication status. Consequently, 316 records were excluded for being non-English, published prior to 2023, categorized as reviews, books, or conference proceedings, or not yet formally published. This process resulted in 66 eligible articles (55 from Scopus and 11 from WoS). Following the removal of 7 duplicate entries, 59 unique records proceeded to the next stage, where they were evaluated based on title relevance, abstract content, research focus, and geographical context. At this stage, 46 records were excluded due to misalignment with the study's objectives or insufficient relevance. Ultimately, 13 articles met all inclusion criteria and were selected for final synthesis, forming the foundational evidence for this review.

To minimize potential bias throughout the review process, the study strictly adhered to the PRISMA 2020 guidelines for systematic selection and reporting. In addition, expert assessments were conducted independently to enhance objectivity. Any discrepancies in article inclusion or thematic categorization were addressed through a structured reconciliation process involving collaborative discussion, ensuring that the final synthesis reflected a consensus-based evaluation rather than individual researcher bias.

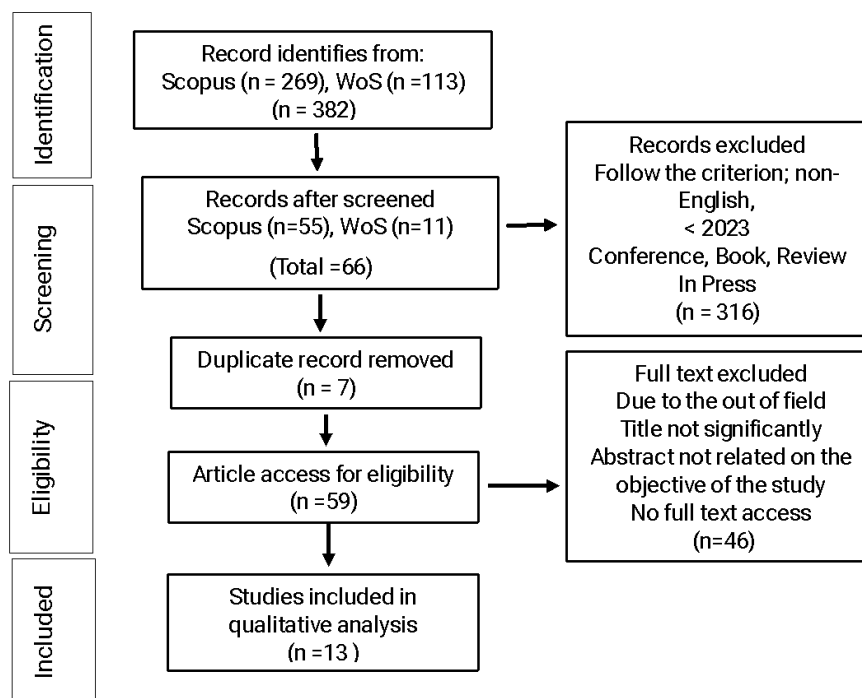


Figure 1: Flow Diagram of the Study

RESULTS AND THEME FORMATIONS

The themes were systematically refined to ensure their clarity, coherence, and relevance to the research objectives. Two experts specializing in contemporary islamic studies conducted assessments to evaluate the accuracy and significance of each sub-theme. Any discrepancies between the experts were resolved through collaborative discussion, and their feedback informed the final adjustments, thereby strengthening the alignment of the themes with the broader academic context.

Theme 1: Waqf and Islamic Financing

Waqf has become a dynamic tool in Islamic finance, offering new pathways for supporting both education and sustainable development. Candra et al. (2024) showed how waqf-based forest initiatives in places like Cibunian village provide significant advantages. Their study revealed that in regions with higher levels of education, such as Cibunian, waqf projects brought stronger socio-economic (26.4%) and ecological (13.9%) improvements. This relationship highlights how education levels can improve waqf program effectiveness. The research called for policies that combine educational advancement with waqf-supported environmental initiatives to achieve broader development goals. Beyond physical assets like forest lands, waqf is evolving through digital platforms. Financial constraints frequently limit students' access to entrepreneurship programs at Malaysian universities. Khairuddin & Ishak (2023) investigated how Islamic crowdfunding based on waqf and infaq could support students financially. Their findings showed that digital fundraising platforms allow students to generate income alongside their studies. However, proper regulation is needed to avoid misuse. They argued that waqf-based crowdfunding, if managed transparently, can align with Islamic values and help ensure educational continuity and student empowerment (Candra et al., 2024; Khairuddin & Ishak, 2023). Mahmudi et al. (2024) explored how Islamic inheritance traditions contribute to educational development. Their findings in Malang, Indonesia, indicated that some families choose to dedicate part of their inherited wealth to educational institutions via waqf. This reflects a community-driven practice, influenced by interpretations of Islamic texts such as al-Nisa: 8 and 9. It shows how charitable behavior is built into daily life and how waqf is being applied beyond traditional property forms. This flexible application channeling wealth from inheritance into education underscores how waqf is adapting to support both moral and social obligations (Khairuddin & Ishak, 2023; Mahmudi et al., 2024).

In response to governance issues in waqf projects, Lestari et al. (2023) proposed the creation of a National Waqf Index (IWN) in Indonesia. This framework includes six elements: regulation, institution, process, system, outcomes, and impact. We use these indicators to assess the effectiveness of waqf programs, including those in the education sector. To ensure their efficient use for educational purposes, the IWN provides guidelines for managing and evaluating waqf assets. This framework promotes accountability and strategic alignment with national development priorities such as poverty reduction and equitable education (Lestari et al., 2023; Mahmudi et al., 2024). Taken together, the research indicates that waqf can be a powerful tool in the Islamic financial system when applied strategically. Waqf is undergoing a redefinition to address contemporary educational requirements, whether through environmental restoration, digital fundraising, inheritance practices, or regulatory models. The integration of waqf into various financial and policy domains demonstrates its ongoing

relevance in tackling educational gaps and promoting sustainable, community-based development.

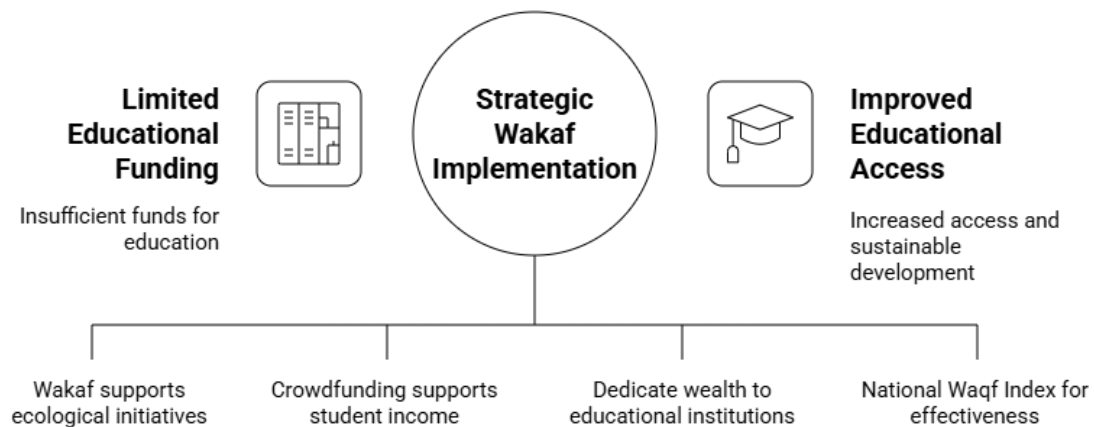


Figure 2: Strategic Waqf Implementation

Theme 2: Barriers to Education Funding

Across many regions, the financial structure of higher education remains fragile. Al-Maadeed & Yesuf (2025) assert that academic institutions must diversify their sources of funding. Their research identified six key financial sources: government allocations, private sector funding, venture capital, industry partnerships, philanthropy, and tuition. However, relying on these sources introduces complexity, especially regarding the balance between commercial interests and academic integrity. Institutions often struggle with rigid administrative systems and legal constraints that delay innovation in funding strategies. The authors stressed the need for diversified income and adoption of financial innovation to ensure long-term academic sustainability.

Human resource challenges also hinder funding innovation. Lyapunтова et al. (2024) noted that faculty members often lack the skills needed for fundraising or financial engagement. Although teachers could support income-generating initiatives like crowdfunding or partnerships, most are unprepared for such tasks. The study suggested providing professional training for academic staff to develop these capacities. The absence of this support weakens efforts to build sustainable financial models and leaves many institutions vulnerable to external shocks (Lyapunтова et al., 2024). Gender-based economic inequality is another factor affecting education funding. Gupta & Kothe (2024) observed that even though women experience better returns from education, they often earn less due to entrenched discrimination. This wage disparity affects their personal financial capacity and limits their potential as donors or supporters of educational institutions. Structural economic disadvantages lead to the underrepresentation of female alumni and professionals in giving networks, despite their potential significant contributions.

Heldini (2024) provided additional insights from Indonesia, showing that trade liberalization has not significantly improved gender equality. Although lower tariffs in technology sectors enable more women to enter the workforce, prevailing cultural norms and insufficient supportive services hinder their equitable access to higher-income roles. Without policy reforms in childcare, flexible work

hours, and skills training, women remain at a disadvantage. This restricts their ability to invest in education, either for themselves or for their families. Similarly, Alwago (2024) highlighted how the gender pay gap in Kenya limits women's ability to support education. The research indicated that economic differences were not due to qualifications but rather to unequal returns on those qualifications. Women earn less than men for similar work, making it harder for them to invest in learning. This situation reflects broader social attitudes that undervalue women's contributions and restrict their economic influence in educational development. Finally, Stojetz & Brück (2024) discussed the impact of conflict and displacement on education funding, especially for women in Darfur. They introduced the idea of a "double burden," where displaced women face both gender-based and displacement-related barriers. These women often cannot access stable employment or income, severely limiting their capacity to fund education. Stojetz & Brück (2024) recommended that education policies address displacement-related challenges and offer targeted financial support for marginalized populations to bridge these gaps.

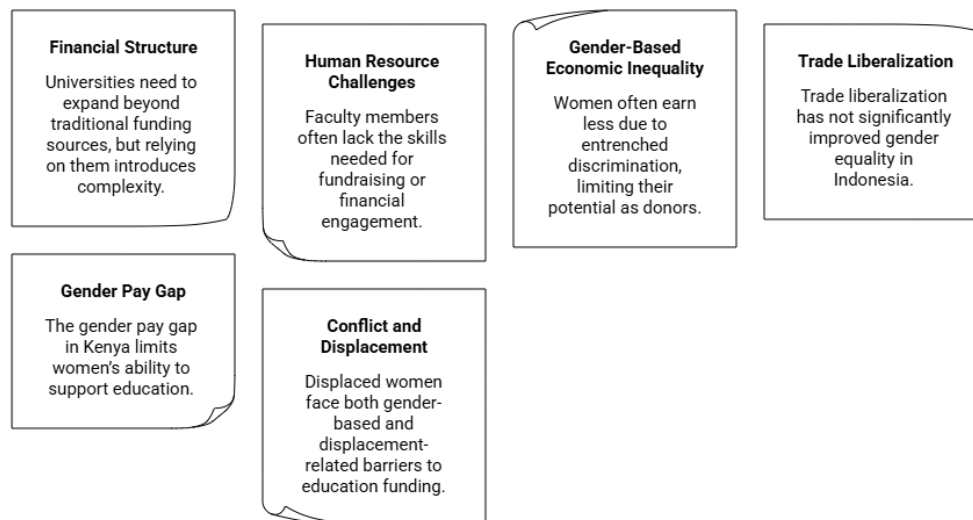


Figure 3: Barriers to Education Funding

Theme 3: Education Quality and Outcomes

Improving the quality of education depends on understanding and addressing multiple influencing factors. Guo et al. (2024) performed a meta-analysis that reviewed the link between homework time and academic results. They found that while moderate homework helps improve skills such as arithmetic and problem-solving, too much can have negative effects, such as fatigue and disengagement. However, the ideal homework duration remains uncertain. The study recommended that future research focus on the secondary level to better understand the balance between workload and learning outcomes. In efforts to support students with disabilities, Woolvine (2024) evaluated a specialized visual learning tool, the 'color-coded eye,' used for learners with cerebral visual impairment (CVI) and profound multiple learning difficulties (PMLD). Training for support staff using this tool led to increased confidence and improved teaching practices. Despite these benefits, barriers such as poor classroom infrastructure and limited staff awareness persisted. The study stressed the importance of

comprehensive support systems that include appropriate teaching materials, better facilities, and ongoing training to ensure that inclusive education efforts are effective.

Gupta & Datta (2023) explored vocational education and training (VET) as a way to improve outcomes for vulnerable youth. Their research, based on quasi-experimental data, showed that accurately identifying disadvantaged youth and offering them tailored training can significantly improve employability and skill development. Participants showed better performance in both soft and technical competencies. These outcomes suggest that customized education strategies, especially in vocational areas, can play a major role in breaking cycles of poverty and marginalization. Together, these studies demonstrate that enhancing educational outcomes requires targeted, flexible, and inclusive strategies. Whether by refining academic tasks like homework, implementing specialized tools for learners with disabilities, or tailoring vocational training to the needs of vulnerable populations, each approach contributes to broader improvements. Education systems should shift away from universal methods and instead concentrate on customizing interventions to specific contexts and learner profiles. Pedagogical quality, emotional support, and access to opportunity must all be addressed for long-term educational success.

DISCUSSION AND ANALYSIS

The role of waqf in education has shifted from its historical function as a static charitable endowment to a more flexible and responsive financial tool adapted to current socio-economic challenges. Its application now spans diverse domains, including environmental sustainability, digital fundraising, and social equity, demonstrating its growing relevance in modern educational development. The reviewed studies reveal that waqf, when managed with strong institutional structures and community participation, offers a viable alternative to conventional education funding models. In ecological projects, waqf initiatives have shown measurable benefits in improving both community welfare and environmental conditions, particularly when educational awareness is high among beneficiaries. This observation highlights the interdependence between educational capacity and waqf success. Without sufficient knowledge and governance, waqf resources may fail to achieve optimal utilization. Therefore, capacity-building in communities is essential to enhance both the management and outcomes of such programs.

Digital platforms utilizing waqf and other Islamic financial instruments have created new funding opportunities, especially for student entrepreneurship and higher education sustainability. These platforms provide a practical means for institutions and individuals to generate funds while adhering to Islamic philanthropic principles. However, the absence of regulatory oversight and standardized guidelines constrains their effectiveness. The absence of a formal structure can lead to trust deficits and misuse, reducing the potential benefits of digital waqf systems. Additionally, traditional practices such as allocating inheritance for educational waqf demonstrate a socially embedded approach to philanthropic giving. These community-driven actions reflect deep religious motivations and cultural acceptance, contributing to education in less formal but impactful ways. However, such practices remain localized and would benefit from structured policy support to ensure wider applicability and impact consistency.

Institutional innovations such as the development of national waqf indexes represent a more

strategic and systematic approach. These tools help assess waqf performance across key dimensions, such as regulation, process, and social outcomes. In the educational sector, they serve to promote transparency, facilitate evaluation, and guide policy development. The creation of such standards enhances the ability to scale waqf programs and align them with broader national education goals. Despite these innovations, substantial challenges remain. Universities continue to face funding shortages due to limited diversification of income sources. Often, academic staff lack the necessary skills or involvement in financial planning, reducing institutional capacity to explore alternative funding. Moreover, deep-rooted gender disparities in labor markets further limit education financing. Wage inequality and restricted access to quality employment reduce the financial agency of women, which in turn impacts their participation in education either as students or as contributors. These economic barriers, especially in post-conflict or marginalized communities, continue to hinder efforts toward inclusive and sustainable education systems. In addition to financial mechanisms, educational outcomes are influenced by how learning is delivered. Homework strategies, inclusive teaching tools, and vocational training programs all require alignment with learner needs and socio-economic realities. Poor design, lack of resources, or insufficient training can limit the effectiveness of these interventions, even when funding is available. A more adaptive and learner-centered approach is necessary to improve overall educational performance and long-term outcomes.

CONCLUSION

Waqf has demonstrated considerable potential as a complementary and sustainable mechanism for supporting education in both traditional and modern contexts. Its evolving use—from ecological development and digital platforms to inheritance practices and institutional indexes—shows its capacity to address complex challenges in educational access and quality. While financial innovation within Islamic philanthropy provides promising solutions, success depends on regulatory clarity, community capacity, and inclusive policies that address deeper structural and socio-economic constraints. To maximize the impact of waqf in education, a comprehensive strategy is required, incorporating financial instruments alongside governance reform, social equity, and pedagogical efficacy. By doing so, waqf can transition from a supplementary resource to a strategic foundation for resilient, inclusive, and high-quality education systems across the Muslim world and beyond.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

AUTHOR CONTRIBUTIONS STATEMENT

Nur Rahmas Mohd Saman (Conceptualization; Methodology; Investigation; Data curation; Formal analysis; Writing-original draft; Project administration; Corresponding author).

Mohd Azmani Firdaus abd Razak Husin (Methodology; Investigation; Data curation; Formal analysis; Writing-review & editing; Presenter).

Mohd Ali Muhamad Don (Conceptualization; Validation; Formal analysis; Writing-review & editing; Supervision).

Muhammad Alif Ramlee (Investigation; Data curation; Resources; Writing-review & editing).

Mohd Ariff Kamaludin (Conceptualization; Validation; Writing-review & editing; Supervision).

AVAILABILITY OF DATA AND MATERIALS

The data supporting this study's findings are available on request from the corresponding author.

ETHICS STATEMENT

Not applicable.

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