



# **Integrating Islamic Fintech and Smart Contracts for Enhancing Governance in Waqf Asset Management**

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## **ABSTRACT**

The article investigates the challenges and prospects of the ruling of Waqf Crowdfunding (Waqf-CF) scheme adoption in Malaysia as Shariah-compliant fintech successors deployed to mobilize Islamic endowment. However, the implementation of Waqf-CF is hindered by a number of challenges, such as the uncertainty of the legal aspects and fragmented governance, along with technology limitations and Shariah compliance issues. Using a qualitative approach, insights were gathered from seven experts 7 experts in finance, academia, and business to inform and guide our work. The results suggest that poor coordination of regulation between federal and state governments, varied modes of governance, and a lack of fintech literacy in waqf bodies are the barriers to successful implementation. In this regard, the paper examines the Waqf-CF models currently being used, including the Crowdfunding-Waqf Model and the Hasanah Platform, by highlighting the pros and cons of each. Based on these, the authors present a sophisticated hybrid model combining blockchain-based smart contracts, AI-led risk profiling, and real-time Shariah auditing for increased trust, transparency, and scalability. Finally, the paper calls for the need of a national regulatory framework and better institutional support to drive Waqf Crowdfunding as an ethical and sustainable funding option that is in line with Maqasid al-Shariah and the nation's vision to be a global Islamic financial hub.

**Keywords:** sustainability, transparency, fintech, governance, risk, challenges, impact.

## **INTRODUCTION**

### **Contextualizing Waqf Crowdfunding and Its Emerging Challenges**

Cash Waqf is a new type of waqf that is based on cash instead of the conventional type of waqf structured on real estate (Noor, 2021). Asni (2023) also highlighted that in considering ways how such financial aids can contribute to the augmenting of its leverage, such financial aids may have to be invested in actual assets that generate income in the long run. Not only does this maintain support of acts of philanthropy but also boosts economic growth, which ultimately

results in greater social and financial self-reliance, by fostering projects that include microfinances and SMES.

On the contrary, Haniff (2023) and Azlan, al (2019) proposed the Waqf-Equity Crowdfunding (ECF) Integrated Financing Model, a Shariah-compliant financial model to encourage activity of startups and SMEs through the combination of waqf endowments and equity crowdfunding. It creates a long-term funding environment for social and economic growth by utilizing Islamic finance contracts, waqf assets, and investor participation through profit-loss sharing.

The research looks at the main problems and difficulties with Waqf crowdfunding, with an emphasis on operational difficulties, governance, legislative restrictions, and technology limits. It uses a qualitative methodology to identify barriers to Shariah compliance, risk management, investor confidence, and platform efficiency by interviewing seven (7) professionals in the commercial, academic, and financial domains. Their viewpoints offer a thorough comprehension of the difficulties associated with putting Waqf Crowdfunding into practice. In order to improve its efficacy and sustainability within the Islamic financial ecosystem, the article's conclusion addresses ethical issues and regulatory deficiencies.

## **CHALLENGES IN IMPLEMENTING WAQF CROWDFUNDING IN MALAYSIA**

### **Regulatory and Legal Challenges**

There is a fragmented and fluid legislative climate in Malaysia which is blocking waqf crowdfunding from being implemented. It will be difficult for waqf institutions and crowdfunding service providers to operate in the well-regulated environment if there are ambiguous and context-sensitive regulations that lead to ambiguity for all stakeholders (Halim, 2025; Sulong, 2025). The decentralized nature of waqf, laissez-faire among states in governance, make adopting a consistent strategy an uphill struggle (Rahman, 2025). In addition, juridical uncertainty in legal status of waqf crowd-funding platform may be related to overlapping authority of civil and Syariah courts (Ahmad, 2025). The uncertainty surrounding the legal status of waqf crowdfunding companies, their terms of conditions, and resolution of dispute issues are also raised due to the lack of comprehensive regulatory guidelines (Rosli, 2025)

### **Governance, Transparency, and Shariah Compliance**

There is a need for a successful governance and accountability systems that will ensure success of waqf crowd funding projects. (Haniff, 2025) However, the regulation needed to protect donor integrity and reporting may not be adequately addressed under the existing regimes (Sulong, 2025). Weak governance may also negatively affect the sanctity of waqf crowd-funding as it may raise the prospect of the potential impropriety of funds (Ahmad, 2025). It is also important to ensure that Shariah rules are diligently observed, particularly with regard to the distribution and purpose of the fund. Nevertheless, any deviation from Shariah compliance would have an adverse effect on the growth of this new funding vehicle and lead to public loss of confidence (Rosli, 2025).

### **Technological and Financial Barriers**

Another significant barrier is the cost and complexity of implementing waqf crowdfunding platforms. The cost barrier is one of the obstacles for donors and platform operators in participating whereby the initial technology investment, as well as the long term maintenance and transaction charges that already outdated those who wish to conduct the microfinance

(Yaacob, 2025). One example of how price-sensitive potential contributors are to extra costs, even a modest transaction fee of RM0. 50 has been cited as a deterrent by some users. In addition, the traditional waqf institutions may not have the competency required of them to embed financial-technology (FinTech) initiatives (Yaacob, 2025). These technological constraints could hinder the take-up and scalability of waqf crowdfunding in Malaysia.

### **Institutional Support and Policy Development**

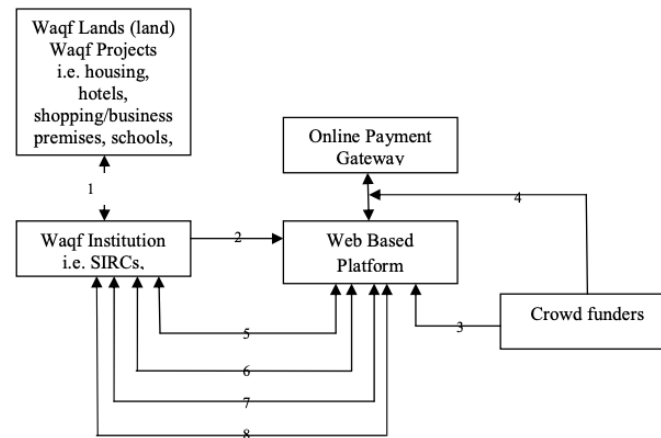
Waqf crowdfunding is a novel way to mobilize Islamic endowments, but more institutional support and policy alignment are needed for its growth. In order to maintain adherence to financial regulations and create an atmosphere that is supportive of crowdfunding platforms, regulatory organizations like the Securities Commission Malaysia (SC) and Bank Negara Malaysia (BNM) must be involved (Ahmad, 2025). National waqf institutions, like Yayasan Waqf Malaysia, might play a bigger role in bridging regulatory gaps between state jurisdictions and facilitating the nationwide adoption of waqf crowdfunding (Zubaidah, 2025). A more cohesive legal and policy framework is required going forward in order to improve investor confidence, expedite governance, and foster the long-term expansion of waqf crowdfunding in Malaysia.

### **LINKING CHALLENGES TO PROPOSED WAQF CROWDFUNDING MODELS**

Several waqf-CF (Waqf-Crowdfunding) models have been proposed by scholars, all of which emphasize the importance of improving access to, and the effectiveness of, waqf property administration. The extent to which these models operate within a country's legal or regulatory framework determines how widely they are adopted. However, for such crowdfunding initiatives to gain credibility, transparency is crucial. Therefore, to ensure proper oversight of fund expenditures and maintain stakeholder confidence, governance mechanisms—including robust reporting systems—should be integrated.

One model proposed by Thaker and Pitchay (2018) integrates waqf institutions with an e-payment system and a web-based crowdfunding portal. Funds collected through this system are allocated to waqf projects such as housing, hotels, office buildings, and educational institutions. The model allows individuals to donate directly through a digital platform, promoting both efficiency and accessibility. To ensure compliance with national laws and Shariah principles, all transactions must adhere to sound governance policies. Transparent reporting and responsible fund management are essential to prevent misuse and to foster trust in the system.

The Crowdfunding-Waqf Model (CWM), proposed by Thaker and Pitchay (2018), offers a systematic approach to mobilizing crowdfunding for waqf-based projects. Under this model, waqf institutions—such as the State Islamic Religious Councils—identify land endowments or waqf land suitable for development into facilities such as hospitals, hotels, schools, and residential homes. A rigorous selection process is undertaken to assess the viability of proposed projects by waqf principles before fundraising begins. Once a project is approved, the waqf institution submits a proposal through social media networks and a web-based platform, inviting public contributions. Funding is typically secured by reaching a predefined target amount within a specified time frame. The structure of this model is illustrated in Figure 1, titled "Crowdfunding-Waqf Model."



**Fig. 1 Proposed Crowdfunding Waqf Model**

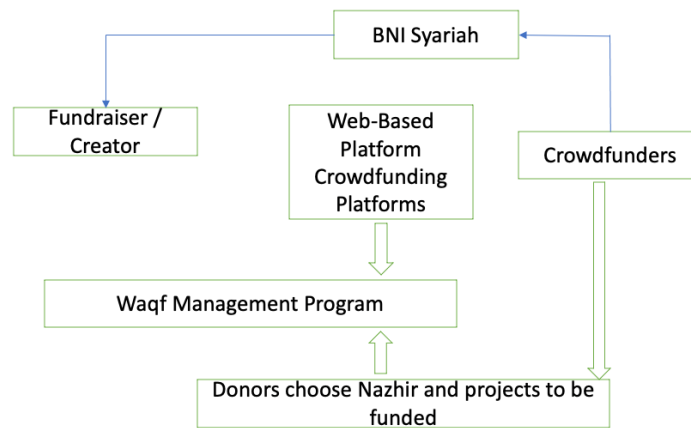
Source: Thaker and Pitchay (2018)

Using a web platform, crowdfunding can select the projects they wish to support and contribute using reward-based crowdfunding, where backers receive a return such as tax relief or a token of thanks, or donation-based crowdfunding, where money is donated with no expectation of return. After donations are collected, they are processed through secure payment gateways, which can be managed by the waqf institution or in collaboration with banking institutions.

The system continuously monitors the project's progress and updates the status as funds accumulate. Once the goal amount is reached, the Waqf Institution is notified to begin project implementation, distributing the funds accordingly. Waqf institutions then manage the project to ensure it is executed properly. In order to keep transactions transparent and trustworthy, updates on a project's status can be communicated to contributors, and technology enables audits and tracking via communication tools such as SMS to ensure a project is in compliance with governance norms and that the absence of leaks or instances of financial misappropriation occur.

In another model, Nasution and Medias (2020) proposed the Hasanah Crowdfunding Platform model, which integrates BNI Syariah as agent to undertake crowdfunding activity. In this system, the nazhir (fundraiser) brings a series of potential waqf projects that require funding and exposes them in an online crowdfunding site. Prospective donors are able to compare various projects and decide which ones they'd like to be a part of.

Donation by members As a feature of the platform, donation of money or other legal instruments that represent wealth to be dedicated as waqf with other officers or waqifs to find the worthy waqf projects. Once collection takes place, the funds are "captained" to a waqf management scheme that ensures a proper allocation and management of the product stream. BNI Syariah governs the compliance to Islamic finance law, and donors are able to track the progress of their donations, which will increase accountability and transparency. Ultimately, the capital is invested to develop waqf projects that maintain the integrity of the waqf framework system and also benefit the community. The flow of Hasanah Crowdfunding Platform is provided in Figure 2.



**Fig. 2 Hasanah Crowdfunding Platform**  
Source: Nasution and Medias (2020)

However, the effectiveness of this model depends on government backing and financial supervision, particularly in countries like Malaysia, where Islamic law is regulated at the state level. A unified regulatory framework is essential for digital waqf platforms to be governed consistently across different states, and strong technology infrastructure—such as secure web platforms and regulated online payment methods—must be in place to avoid fraud and ensure effective fund distribution (Haniff et al., 2020).

The models of Waqf Crowdfunding presented by Thaker and Pitchay (2018) and Nasution and Medais (2020) represent significant contributions in the conceptualisation of the digital waqf fundraising ecosystem. But given the above hurdles not just (regulatory uncertainty and technology adoption issues) lack of trust based system(s) their prospects in Malaysian bit industry are slender to say the least.

The Thaker-Pitchay framework, which, however, first combined the online waqf crowd sourcing with other waqfs platforms, does not provide an embedded compliance functionality, a real-time tracking by the block-chain, or a real-time audit. Similarly, the Hasanah Platform model by Nasution & Medias (2020), though structurally sound, depends heavily on financial intermediaries like BNI Syariah but does not accountt for cross-state Shariah variations or fintech infrastructure constraints in Malaysia.

Therefore, a refined, hybrid model is proposed (Figure 3) integrating:

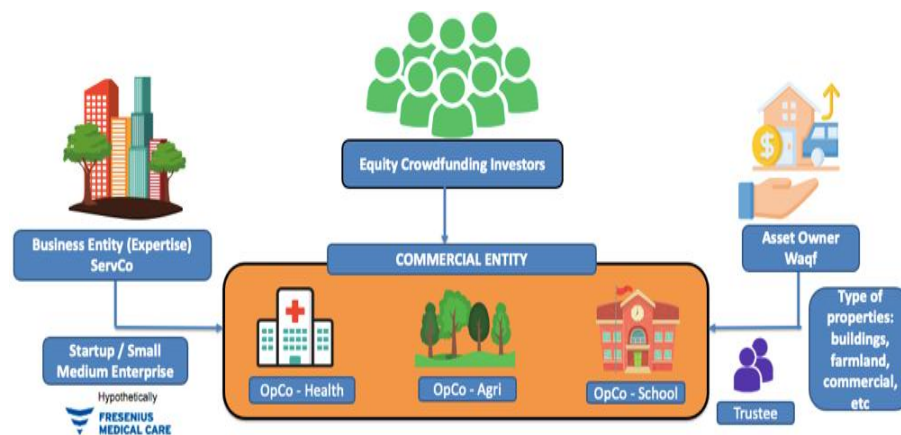
- Smart contract-driven compliance using blockchain for transparency.
- Real-time Shariah auditing tools for ethical fund deployment.
- AI-powered risk profiling and investor-donor matching.
- Cross-border operability, aligned with Malaysia's role as an Islamic finance hub.
- Integration of Islamic fintech within a super app ecosystem.
- Governance dashboards and auto-reporting for SIRC's and regulatory bodies.

This hybrid approach addresses both the structural and ethical concerns raised by experts and aligns with maqasid al-Shariah principles of justice, public welfare (maslahah), and wealth circulation. It represents a more comprehensive and viable solution for waqf crowdfunding in

Malaysia, ensuring legal compliance, governance, and transparency while enhancing efficiency and scalability.

### Waqf-Equity Crowdfunding Integrated Financing Model

The proposed **Waqf-Equity Crowdfunding (Waqf-ECF) Integrated Financing Model** offers a novel mechanism to unlock underutilised waqf assets through fintech-enabled, Shariah-compliant crowdfunding frameworks. This model links **waqf asset owners, equity crowdfunding investors, startups/SMEs, and sector-specific service providers** to collectively support high-impact projects in education, health, and agriculture. **Figure 3** below illustrates the model's structure:



**Fig. 3 Waqf-Equity Crowdfunding Integrated Financing Model**

ServCo: Service Company providing business expertise

OpCo: Operating Company with profit and loss obligations toward investors

The model begins with asset owners endowing property, equipment, or buildings as waqf assets—these could be educational buildings, dialysis machines, or farmland. These assets are then entrusted to **waqf trustees**, who oversee compliance with Shariah and governance standards. Commercialisation of these assets is effected by Operating Companies (OpCos), which tend to be SMEs or startups in priority areas like health (OpCo-Health), agriculture (OpCo-Agri) (OpCo-Agri) and education (OpCo-School).

In order for these startups to have the domain expertise necessary, Service Companies (ServCos) come in to consulting, operations support and sometimes tools (e.g., medical or farm equipment) as well. For instance, a start-up, such as that called Fresenius Medical Care, may set up a dialysis centre on waqf-provided premises, with ServCo providing specialist healthcare management services. Funding for all of these start-ups is raised through Equity Crowdfunding (ECF) portals which appeal to Shariah-aware investors.

The model is based on profit-loss sharing (PLS) through an Islamic finance contract like *Mudarabah* or *Musharakah*. This also distributes the risk equally among all parties and focuses the investors' interests on the moral and social outcome of the waqf project. To safeguard all concerned, the concept of takaful insurance can be included, providing cover against operational risk. Moreover, the clarity of utilization of funds and the building of trust among donors/ investors can be achieved through fintech mechanisms and enablers like smart

contracts, blockchain and a realtime Shariah compliance dashboard. In summary, this system of an integrative model generates a synergy ecosystem between waqf endowments, Islamic crowdfunding and commercial innovation.

It offers the startup capital, resources, and the opportunity for startups to grow, and allows the waqf institutions to achieve their socio-economic objectives through sustainable, impactful entrepreneurship. In addition, the model specifically confronts the issues identified in Sections 2 and 3, especially the regulatory murkiness, technological balkanization and fragile governance structures, by integrating fintech solutions and ethics screens into the financing infrastructure

### **SUMMARY OF OUTCOMES AND PROPOSED ACTIONS**

In order to sustain the economic and ethical soundness of waqf crowdfunding in Malaysia, there is a critical need for a multidimensional and comprehensive approach that focuses on governance, technology, and regulatory issues. Legislators need to strive to create a harmonious legislative package that is friendly to both waqf institutions and fintech companies to operate in a safe environment.

First, there should be created a unified regulation in order to guarantee legal certainty for the waqf crowdfunding platforms, and to homogenize the contribution of regulation in the state level. For example, governmental bodies with jurisdiction over financial markets and the monetary system need to work together (SC and BNM) to promote an environment conducting online waqf crowdfunding activities that are favorable to the (Haniff et al. 2023).

Furthermore, the contribution of national waqf institutions such as Yayasan Waqf Malaysia is also significant in developing a sustainable system of governance and fill the gaps in the regulatory. To create adherence and credence for the platform, institutions such as the SC, BNM, and Yayasan Waqf Malaysia, need to take the lead in standardizing platform governance, licensing of Shariah-compliant crowdfunding portals, and monitoring of ethical compliance. In addition, legal recognition, dispute resolution, and Shariah compliance frameworks also enhanced building the trust level and improved participation for waqf crowdfunding. Technological advancements should also be mobilized to improve accessibility, efficiency, and transparency of fund management.

Fintech solutions -- like smart-contracts, Shariah-compliant AI auditing, and blockchain verification -- need to be built in as native features from the beginning, to guarantee compliance and auditability. Developing digital platforms that are user-friendly and incorporate secure online payment gateways, blockchain-based tracking systems, and automated reporting modules is both logical and essential. These tools help build public trust, prevent fund mismanagement, and ensure that funds are disbursed efficiently and effectively to high-impact waqf projects. Since trust is a major concern among donors, the sustainability of waqf crowdfunding in Malaysia will depend on institutional oversight, routine audits, and transparent reporting mechanisms.

Academics and practitioners must continue refining crowdfunding models by incorporating empirical evidence and best practices from both Islamic finance and impact-oriented fintech. Ultimately, an economically viable and ideologically aligned waqf crowdfunding model holds

the potential to democratize access to halal capital, boost SME productivity, and fulfill the core social justice objectives of Islamic finance.

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