

## Beyond Religious Studies: Pesantren as a Gateway to Economic and Civilizational Revival

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### Abstract

In an era of digital transformation and renewed interest in Islamic economic tools, pesantren remain pivotal institutions within Indonesian society deeply rooted in heritage, yet increasingly confronted with modern challenges. This exploratory study examines pesantren in the Parungpanjang area, focusing on how they sustain their operations and identities amid shifting technological and economic landscapes. Grounded in field research, including interviews and surveys, this study develops a typology of four pesantren models: Digital Pesantren, Waqf-Supported Pesantren, Hybrid Pesantren, and Traditional Pesantren. These models reflect varying degrees of adaptation to digital management tools and contemporary waqf systems. Rather than treating digitalization or economic instruments as end goals, the study positions them as strategic differentiators that reveal how pesantren respond to broader transformations while maintaining cultural and religious autonomy. The findings highlight both the resilience and diversity of pesantren in navigating modernity and underscore the importance of context-aware innovation in sustaining these heritage institutions.

**Keywords:** Islamic boarding-school; pesantren typology; digitalization; waqf; financial sustainability

### Introduction

Pesantren are among the oldest and most distinctive Islamic educational institutions in Indonesia, functioning not only as centers for the transmission of Islamic knowledge but also as vital guardians of religious morality and communal identity. Their strategic role has been widely acknowledged across educational,<sup>1</sup> socio-cultural,<sup>2</sup> and community development domains rooted in Islamic values.<sup>3</sup> Over the last decade, a growing discourse has emerged positioning pesantren as potential agents of economic empowerment and social transformation, particularly through the lens of Islamic economics and sustainable human resource development.<sup>4</sup>

Amid the forces of modernization and digitalization, pesantren now face both pressures and opportunities to expand their institutional roles. Beyond their function as religious education centers, they are increasingly

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<sup>1</sup> Zamakshari Dhofier, *Tradisi Pesantren: Studi tentang Pandangan Hidup Kyai*, 1985. Dhofier's book based on his dissertation at the Australian National University, remains the primary reference for academic research on pesantren.; Azyumardi Azra, *Islamic Education: Tradition and Modernization in Southeast Asia*, 2012, examines the genealogy of Islamic education.

<sup>2</sup> Ibid., also discusses in socio-cultural context; Usman, Idris Muhammad. *Pesantren sebagai lembaga pendidikan islam*. Jurnal Al Hikmah 14, no. 1 (2013): 101-119.

<sup>3</sup> Madjid, Nurcholish. *The true face of Islam: essays on Islam and modernity in Indonesia*. Voice Center Indonesia, 2003. Discussing the role of Islamic boarding schools in Indonesian society.

<sup>4</sup> Effendy, B. "The Economic Resilience of Pesantren in Indonesia: Case Studies from Java and Sumatra." Indonesian Journal of Islamic Studies 12, no. 1 (2017): 53–70.; Wahid, A, dan Y Niam. "Kemandirian Ekonomi Pesantren dan Inovasi Kewirausahaan Berbasis Wakaf Produktif." Yogyakarta: LP2M UIN Sunan Kalijaga, 2021.

expected to operate as self-reliant socio-economic entities.<sup>5</sup> Financial independence remains a core concern, especially given the persistent reliance on traditional funding sources such as tuition fees, community donations, and intermittent government support. Notably, the Indonesian Minister of Religious Affairs has acknowledged that pesantren have long been expected to sustain themselves with limited systemic support, a reality reflected in modest state budget allocations compared to other educational sector.<sup>6</sup>

In response to the demands of financial independence, pesantren have begun to seek innovative strategies to strengthen their economic base. These efforts are not only limited to optimizing traditional funding sources as mentioned above, but also involve exploring more adaptive and sustainable financial management models. Several Islamic boarding schools have begun to open independent business units, develop cooperatives, and build partnerships with the private sector and Islamic financial institutions.<sup>7</sup> In addition, initiatives have emerged to utilize waqf assets productively and adopt digital technology to expand access to funding and operational efficiency. These strategies demonstrate the internal dynamics within Islamic boarding schools that are trying to adapt to socio-economic changes while maintaining the Islamic values that are the main foundation of the institution.

The diversity of pesantren models continues to grow from *Salafiyah* pesantren with classical Islamic curricula to *Khalafiyah* institutions adopting national education standards, and modern pesantren that engage in entrepreneurship, vocational training, and digital innovation.<sup>8</sup> This evolving landscape underscores the need to explore frameworks of economic sustainability grounded in Islamic economic principles especially productive waqf while incorporating the potential of digital financial technologies and, where relevant, artificial intelligence (AI)-supported tools.

Although pesantren represent a uniquely Indonesian Islamic educational institution, comparing them with similar institutions abroad (e.g., madrasah in Pakistan, Islamic boarding schools in Nigeria, or pondok in Malaysia) helps contextualize their evolving role. Most international studies still emphasize pedagogy, character formation, or institutional management.<sup>9</sup> Rarely do they explore integrated approaches involving education, economics, and digital transformation. This study, therefore,

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<sup>5</sup> Usman, Idris Muhammad. *Pesantren sebagai lembaga pendidikan islam*. Jurnal Al Hikmah 14, no. 1 (2013): 101-119.; Zuhirsyan, Muhammad. *Membidik Potensi Ekonomi Syariah Di Lembaga Pendidikan Pondok Pesantren*. *Economica: Jurnal Ekonomi Islam* 9, no. 2 (1 Desember 2018): 319.

<sup>6</sup> Kementerian Agama Republik Indonesia. "Transformasi Pendidikan Islam, Kemenag Siapkan Pesantren Internasional." Direktorat PD Pontren. February 29, 2024.

<sup>7</sup> Zuhirsyan, Op.Cit.; Komariyah, Nurul, dan Alan Su'ud Ma'adi. "Model Pengelolaan Ekonomi Pesantren dalam Mewujudkan Kemandirian Ekonomi di Pondok Pesantren Tanwirul Islam Sampang." *Maslahah: Jurnal Manajemen dan Ekonomi Syariah* 2, no. 4 (2024): 131-46.

<sup>8</sup> Fauzi, M. "From Traditional to Entrepreneurial: The Transformation of Islamic Boarding Schools in the Digital Era." *Jurnal Pendidikan Islam* 6, no. 2 (2018): 211-30; Abdullah, W. "Pesantren and Financial Independence: Strategies for Sustainable Islamic Education." *Journal of Islamic Financial Studies*, 7, 4 (2019): 89-105.

<sup>9</sup> Al-Khalili, M. *Educational Governance in Islamic Boarding Schools: A Comparative Study in Malaysia and Egypt*. *Journal of Islamic Studies and Society* 14, no. 2 (2019): 143-60.; Yusuf, A. *Global Perspectives on Madrasah Reform: Pedagogy, Policy, and Politics*. *Comparative Education Review* 65, no. 3 (2021): 378-401.

offers a novel contribution by presenting a typology of pesantren transformation that unites these dimensions in response to modern challenges.

This study addresses that gap by exploring pesantren as evolving institutions analyzing their internal organization and economic strategies through the lenses of digital finance and waqf management. By developing a typology of pesantren in the Parungpanjang area, the research offers a conceptual mapping of their transformation in the face of contemporary challenges. The goal is not only to document change but to illuminate how pesantren sustain themselves economically while maintaining their religious and cultural identity.

### Literature Review

Pesantren have historically functioned as transformative institutions, deeply embedded in the socio-religious fabric of Indonesian society. Initially established as centers for Islamic scholarship particularly in *tafsir*, *hadith*, and *fiqh* pesantren also took on roles in shaping the moral, social, and political consciousness of Muslim communities.<sup>10</sup> During the colonial period and the struggle for independence, pesantren often acted as hubs of resistance and political mobilization, with *kiai* serving as both religious and nationalist leaders.

In the post-independence era, their function expanded further. Some pesantren adapted to the demands of national development by incorporating general education, vocational training, and community service, showing a capacity for institutional evolution in line with societal needs.<sup>11</sup> This progression reflects an enduring institutional logic: pesantren evolve in response to historical challenges—moving from purely religious instruction toward broader contributions in politics, society, and increasingly, the economy.

Despite this adaptability, the economic dimension of pesantren has historically remained subsistence-based. Most institutions relied on tuition, local donations, or small-scale agriculture, limiting their capacity to become robust economic actors within the Muslim community.<sup>12</sup> The history of wakaf at Tebuireng demonstrates the longstanding commitment of pesantren to maintain their independence through community-driven resource mobilization.<sup>13</sup> Yet even in this modest form, pesantren's economic practices were underpinned by Islamic principles, particularly *kemandirian* (independence) and *gotong royong* (collective cooperation), which continue to shape their organizational ethos.

In exploring the economic sustainability of pesantren, it is essential to recognize that wakaf serves as a vital model of philanthropy in Islam, providing a sustainable economic empowerment mechanism for

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<sup>10</sup> Dhofier, Op. Cit.; Azra, Op Cit.

<sup>11</sup> Madjid, Op Cit; Fauzi, M. *From Traditional to Entrepreneurial: The Transformation of Islamic Boarding Schools in the Digital Era*. Jurnal Pendidikan Islam 6, no. 2 (2018): 211–30.

<sup>12</sup> Effendy, Op Cit.

<sup>13</sup> Huda, Miftahul. "Wakaf dan Kemandirian Pesantren dari Tebuireng Hingga Gontor." *Islamica: Jurnal Studi Keislaman* 7, no. 1 (3 September 2012): 211–31.

pesantren<sup>14</sup>. Traditionally, waqf-funded land, buildings, and operational support enabled pesantren to offer free or low-cost education, aligning with the Islamic ethos of public good provision.<sup>15</sup> In the pesantren context, waqf not only ensured material sustainability but also embodied the community's spiritual investment in the institution.

However, over time, the strategic role of waqf has waned. In most pesantren, waqf remains underutilized confined to passive land holdings or simple endowments. Challenges include lack of legal awareness, inefficient management, and minimal innovation in deploying waqf as an economic tool.<sup>16</sup> While its symbolic role remains strong, waqf has yet to be fully optimized to support the financial independence and long-term growth of pesantren.

While pesantren have long operated on economic principles of self-reliance, they have rarely played a central role as economic engines within Islamic society. Their entrepreneurial activities such as micro-enterprises, student cooperatives, and informal training have traditionally remained peripheral<sup>17</sup>. These efforts, though essential for daily survival, often lack scalability, strategic management, and integration with broader Islamic financial networks.

Nonetheless, there are growing signs of change. In recent years, some pesantren have entered into partnerships with Islamic banks, launched microfinance programs, or developed vocational training schemes tied to income-generating activities.<sup>18</sup> These initiatives point to a latent economic potential that remains largely untapped across the pesantren sector.

The digital era presents both a challenge and an unprecedented opportunity for pesantren. Digital financial tools—ranging from QR payment systems to cloud-based accounting offer practical solutions to long-standing administrative inefficiencies. Moreover, digital waqf platforms now enable broader and more transparent community participation in supporting pesantren infrastructure and services.<sup>19</sup>

Although educational technologies, including AI-assisted learning platforms, are also emerging, their integration into pesantren remains limited and exploratory. Instead, digital transformation in pesantren is primarily driven by operational and economic needs improving transparency, reducing administrative costs, and expanding income through online entrepreneurship or fintech collaborations.

This signals a critical juncture: pesantren are now positioned to transition from economically subsistent entities into proactive institutions

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<sup>14</sup> Ibid.

<sup>15</sup> Kuran, Timur. "The Provision of Public Goods under Islamic Law: Origins, Impact, and Limitations of the Waqf System." *Law & Society Review* 35, no. 4 (January 2001): 841–97.

<sup>16</sup> Hasan, Z. "Waqf as a Tool for Sustainable Economic Development: Lessons from Contemporary Practices." *International Journal of Islamic Economics and Finance Studies* 6, no. 2 (2020): 45–60.

<sup>17</sup> Abdullah, W. "Pesantren and Financial Independence: Strategies for Sustainable Islamic Education." *Journal of Islamic Financial Studies*, 7, 4 (2019): 89–105.

<sup>18</sup> Wahid & Niam, Op. Cit.

<sup>19</sup> Rahman, A. "Digital Waqf and Crowdfunding: A New Model for Sustainable Islamic Philanthropy." *Journal of Islamic Finance and Digital Economy* 9, no. 2 (2021): 112–30.; Ismail Abdel Mohsin, Magda. "Financing the development of old waqf properties." (2017).

within the Islamic digital economy *if* they can successfully integrate digital tools with Islamic economic principles like waqf.

Current literature tends to treat education, economy, and digital transformation in pesantren as separate phenomena. What is lacking is an integrated framework that reflects how these domains interact within the institutional evolution of pesantren. Few studies offer typologies or models that classify pesantren based on their level of digital, economic, and religious integration.

Given the limited prior theorization on the integration of digital economy, waqf, and pesantren development, this study adopts an exploratory qualitative approach. Rather than beginning with a fixed theoretical framework, the research follows an inductive logic where patterns emerge from field data.<sup>20</sup> This allows for a context-sensitive understanding of institutional innovation in pesantren that deductive or theory-driven designs might otherwise overlook.

## Methodology

This study adopts a qualitative exploratory approach to investigate the institutional transformations of pesantren in the digital era. Given the lack of existing frameworks that holistically integrate educational, economic, and technological dimensions in pesantren development, a qualitative design is most appropriate for capturing the complexity and context-specific nature of these changes. The primary goal is to construct a typology of pesantren based on their engagement with digital financial tools, waqf optimization, and institutional self-reliance strategies.

The research is grounded in field-based case studies, focusing on selected pesantren in the Parungpanjang region, an area known for its dense concentration of Islamic boarding schools and diverse institutional profiles. This approach allows for rich, contextually embedded data collection and a comparative analysis of institutional strategies and models.

Using a purposive sampling technique, the study selected pesantren that exhibit varied degrees of digital and financial integration. The aim was not to generalize across all pesantren in Indonesia, but to capture a range of institutional responses to contemporary challenges. Four types of pesantren emerged from the sampling: Digital Pesantren Fully integrated digital tools for administration, finance, and community engagement; Waqf-Supported Pesantren Primarily reliant on Islamic endowments for financial sustainability; Hybrid Pesantren Combining traditional and modern practices with partial digital engagement; Traditional Pesantren Operating through conventional systems with minimal or no digital adoption.

This typology formed the basis for comparative analysis and thematic exploration.

### a) Data Collection Methods

The primary methods were employed to gather data: Field Surveys Conducted among pesantren administrators, finance officers, and teachers

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<sup>20</sup> Creswell, J. W. "Qualitative Inquiry and Research Design: Choosing Among Five Approaches (3rd ed.)." SAGE Publications, 2013.; Tisdell, Elizabeth J., Sharan B. Merriam, dan Heather L. Stuckey-Peyrot. Qualitative Research: A Guide to Design and Implementation. John Wiley & Sons, 2025.

to document institutional structures, funding sources, and digital practices; Structured Interviews Targeted at pesantren leaders (*kiai, asatidz/ah*), digital finance facilitators, and waqf managers. The interviews from the Key informants explored themes such as digitalization, economic resilience, perceptions of waqf utility, and institutional challenges.

#### b) Data Analysis Procedure

The collected data were analyzed using a case study analysis approach, focusing on selected pesantren to capture the depth and complexity of their institutional transformations in the digital era. Each case was examined individually to identify unique strategies, challenges, and adaptive processes.

The analysis involved: Within-case analysis: Detailed examination of each pesantren's engagement with digital finance tools, waqf optimization, and institutional autonomy; Cross-case comparison: Identification of patterns across pesantren to construct a typology of institutional responses to digital transformation.

Data triangulation was applied across interviews, surveys, observations, and institutional records to enhance validity and reliability. The findings were structured to reveal contextually embedded insights, allowing for a comparative evaluation of how different pesantren navigate modernization while maintaining their institutional identity.

#### c) Validity and Ethical Considerations

To ensure the credibility and ethical integrity of the study: Triangulation was used to cross-validate findings from different sources; Member checking was conducted, with selected participants reviewing and confirming key insights; Anonymity and informed consent were upheld throughout, with all respondents fully briefed on the research purpose and their right to confidentiality.

This methodology supports the study's objective of producing a nuanced, empirically grounded analysis of pesantren transformation in the era of digital finance and Islamic economic renewal.

## Results and Analysis

Fieldwork conducted across pesantren in the Parungpanjang area revealed a spectrum of institutional adaptation strategies in response to contemporary pressures particularly in financial sustainability, digital integration, and waqf management. Rather than a linear progression, these adaptations reflect distinct institutional logics, shaped by leadership vision, historical context, and community engagement. From these insights, four models of pesantren emerged, each representing a typology of response to economic and technological transformation:

- a) Digital Pesantren
- b) Waqf-Supported Pesantren
- c) Hybrid Pesantren
- d) Traditional Pesantren

This typology forms the core analytical contribution of the study and is elaborated below.

### **Model 1: Digital Pesantren**

**Characteristics:** Full integration of digital financial tools, cloud-based bookkeeping, and online payment systems (e.g., QRIS, Islamic e-wallets); Adoption of digital platforms for community fundraising, including waqf crowdfunding; Entrepreneurial ventures supported by e-commerce or digital marketing (e.g., santri-made products sold via social media); Some initial use of digital learning tools, though not the primary focus.

**Institutional Profile:** Often led by younger or digitally literate leaders (including alumni); Strong partnerships with Islamic fintech firms or local tech communities; Emphasis on innovation, branding, and financial independence.

These pesantren exemplify high institutional agility, effectively translating traditional Islamic values into contemporary economic models. Digital tools are used to increase transparency and outreach, allowing for more scalable sustainability strategies. However, digital pesantren remain a minority and typically rely on leadership with external exposure to tech and business.

An illustrative example of this typology is Pesantren Nurul Falah, where the leadership emphasizes self-reliance among students. As the founder states, *"We want our students to be self-reliant. I'd rather see them selling cilok around the neighborhood than stuck as someone else's employee."*

This entrepreneurial spirit is further supported by the integration of technology, as noted by the administrator: *"Parents can track every transaction their child makes at the pesantren—everything is cashless and monitored through our app, which we developed with Telkom."*

Additionally, the establishment of NF Mart demonstrates the pesantren's commitment to financial independence, with a family member explaining, *"The NF Mart was started with capital from the kiai's grandfather. Now we even produce and sell our own soap."*

These insights underscore how Pesantren Nurul Falah embodies the principles of a Digital Pesantren, leveraging technology to foster innovation and economic self-sufficiency.

### **Model 2: Waqf-Supported Pesantren**

**Characteristics:** Significant reliance on waqf-based assets (e.g., land, buildings) for operational support; Traditional fundraising mechanisms for waqf (mosque announcements, community networks); Emerging interest in digitizing waqf management, though implementation remains basic; Limited adoption of broader digital financial tools.

**Institutional Profile:** Strong historical legitimacy within the community. Often managed by senior kiai with deep religious authority but limited tech familiarity; Emphasis on preserving religious continuity over institutional modernization.

This model represents a legacy-driven sustainability approach. While waqf provides stability, it is often underutilized due to limited digital literacy or regulatory complexity. These pesantren could benefit significantly from support in digitizing waqf and engaging with Islamic fintech partners.

A compelling example of this model is Pesantren As-Syaifurrahin Sulaimaniyah, where the focus on religious education is paramount. As noted by an administrator,

*“Our students memorize the Quran here, and if they pass their exams, we send them to Turkey with an 80% scholarship.”* This commitment to education is supported by the pesantren’s physical assets, as a management team member explains:

*“The land and building were endowed by a local philanthropist, but the pesantren is managed entirely by the Sulaimaniyah network.”* These statements illustrate how As-Syaifurrahin embodies the Waqf-Supported type, relying on waqf resources for operational stability while maintaining a strong connection to community values and educational goals."

### **Model 3: Hybrid Pesantren**

**Characteristics:** Mix of traditional and modern financial practices: cash-based donations, some QR code payments; Partial digitalization (e.g., Excel-based bookkeeping, sporadic use of social media); Moderate waqf involvement, not necessarily passive or underdeveloped; Variable use of technology in education or operations.

**Institutional Profile:** Administratively flexible but lack a clear modernization roadmap. Often in a transitional phase with younger staff pushing innovation; Dependent on external grants or government subsidies for digital adoption.

Hybrid pesantren are the most common model observed in the field. They reflect institutional ambivalence aware of the need to modernize but constrained by resources, training gaps, or risk aversion. They represent key leverage points for policy intervention and targeted capacity-building programs.

An illustrative case is Pesantren Darunnajah, where the economic model demonstrates a creative blend of traditional and modern practices. An administrator succinctly explains,

*“The entire teacher salary doesn't touch the students' tuition it's fully supported by our business units.”* This innovative approach to financing education is complemented by a commitment to entrepreneurial learning, as highlighted by an entrepreneurship coordinator:

*“From failed bread to award-winning pastries we sent our team to learn from Bogasari for free, and now our bakery is thriving.”* These insights reflect how Darunnajah embodies the Hybrid type, balancing the preservation of traditional values with a drive for innovation and self-sustainability.”

#### **Model 4: Traditional Pesantren**

**Characteristics:** Operate almost entirely through conventional means: tuition, local donations, and physical cash transactions; No digital finance tools or waqf digitization observed; Education focused solely on classical Islamic texts (*kitab kuning*); Skepticism toward modern finance and technology.

**Institutional Profile:** Deeply rooted in religious orthodoxy and community trust; Leadership prioritizes religious preservation over modernization; Often located in rural or underserved areas with limited access to infrastructure.

These institutions maintain cultural and religious purity but are the most vulnerable economically. Their resistance to digital and financial innovation stems more from a protective stance toward tradition than from doctrinal rejection. Their survival may depend on tailored support that respects their values while introducing low-friction digital tools.

A prime example of this type is Pesantren Nurul Hidayah, where the focus is firmly on religious education. As a senior teacher articulates,

*“We focus only on religious studies. Secular schooling is secondary, and our alumni become village ustadz and community leaders.”* This commitment to religious instruction is echoed by the kiai, who states,

*“We’ve been teaching Quran here for over 30 years. That’s our mission simple and sincere.”* These remarks illustrate how Nurul Hidayah embodies the Traditional type, emphasizing the preservation of Islamic teachings while remaining skeptical of modern financial practices and digital tools.”

Table 1.

<b>Pesantren Model</b>	<b>Digital Adoption</b>	<b>Waqf Utilization</b>	<b>Educational Focus</b>	<b>Economic Strategy</b>
<b>Digital Pesantren</b>	Full (QRIS, fintech)	Digital waqf crowdfunding	Modern+Salafi	Online businesses, scalable
<b>Waqf-Supported</b>	Low to Moderate	High (conventional)	Traditional	Land-based, community waqf
<b>Hybrid Pesantren</b>	Moderate (partial systems)	Moderate (underdeveloped)	Mixed	Grants, partial digitization
<b>Traditional</b>	Minimal	Symbolic only	Classical	Subsistence,

<b>Pesantren</b>				local donations
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Based on the findings above, several cross-cutting themes and institutional dynamics emerge across all models:

- 1) Leadership is critical: The vision and background of pesantren leaders significantly shape adaptation strategies.
- 2) Digital literacy is uneven: Even among hybrid and digital models, technical knowledge varies widely and limits optimization.
- 3) Waqf remains symbolically powerful but less strategic: There is deep reverence for waqf, but few pesantren manage it as a strategic asset.
- 4) Economic independence is an aspiration, not yet the norm: Most pesantren still rely on traditional resources and lack long-term financial planning.

### Discussion

As pesantren navigate the complexities of modernity, it is crucial that they possess the capacity to act as bastions of authentic values in the face of modernity, ensuring the preservation of their unique identities.<sup>21</sup> In light of the typology and patterns previously outlined, the following analysis examines how these institutional models carry broader implications for sustainability and adaptive resilience.

The typology presented in this study highlights that pesantren are not static religious institutions but evolving entities whose transformations echo earlier historical shifts. From their initial roles in Islamic transmission and resistance during colonialism to their post-independence integration of secular education, pesantren have continually adapted to societal demands.<sup>22</sup> The emergence of digital pesantren and hybrid models in this research suggests that today's transformations are part of a broader historical arc, in which institutional survival depends on contextual responsiveness and strategic resource use.

Digital tools and productive waqf mechanisms are not departures from tradition but contemporary extensions of pesantren's long-standing ethos of *kemandirian* (self-reliance) and community service. The current challenge is not whether to modernize, but how to do so in a way that preserves religious identity while ensuring economic viability.

As found in the waqf-supported and hybrid pesantren models, waqf remains deeply respected as a religious institution but is underdeveloped as a financial instrument. This disconnect is not due to ideological resistance but stems from management limitations, regulatory complexity, and lack of digital integration.<sup>23</sup>

To fully harness waqf as a tool of institutional sustainability, pesantren need support in:

- a) Digitizing waqf asset registration and crowdfunding processes.

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<sup>21</sup> Huda, Op.Cit.

<sup>22</sup> Azra, Op.Cit.; Madjid, Op.Cit.

<sup>23</sup> Hasan, Op.Cit.; Mohsin, Op.Cit.

- b) Forming partnerships with Islamic fintech and waqf startups.
- c) Clarifying legal and Shariah-compliant frameworks for investment and returns.

These steps would align pesantren with global trends in Islamic social finance, allowing them to reclaim waqf as a dynamic pillar of their economy. One of the strongest findings is that digitalization in pesantren is not driven by abstract fascination with technology, but by practical needs: transparency, efficiency, and access to funding. The digital pesantren model shows how tools such as cloud-based accounting and online payments enhance credibility with donors, improve recordkeeping, and reduce operational costs.

However, adoption is uneven. Hybrid and traditional pesantren face infrastructure and literacy barriers, and often lack the internal capacity to implement even basic systems. Addressing these disparities requires targeted interventions such as:

- 1) Digital finance training for pesantren administrators.
- 2) Infrastructure grants or public-private partnerships to support access.
- 3) Shariah-compliant template systems to build trust and standardization.

The typology developed in this study provides a practical framework for both researchers and policymakers. By understanding pesantren not as a monolith, but as institutions occupying different positions on a spectrum of transformation, interventions can be better tailored. For example:

Digital Pesantren may benefit from partnerships with Islamic tech incubators and business accelerators; Waqf-supported Pesantren need training in asset management and legal literacy; Hybrid Pesantren are ideal candidates for targeted modernization grants and strategic mentorship; Traditional Pesantren require culturally sensitive engagement that starts from trust and low-risk, low-tech solutions.

Such an approach ensures that modernization efforts do not threaten institutional autonomy or religious integrity, but enhance pesantren's ability to serve their communities in the digital age.

This research contributes to a broader understanding of pesantren transformation by weaving together education, economy, and digital technology as interdependent components of institutional life. Rather than treating these domains as separate challenges, the most adaptive pesantren treat them as integrated strategies for survival and growth.

In this light, digitalization and economic instruments like waqf are not add-ons they are essential tools in preserving the religious mission of pesantren while ensuring operational sustainability. The ability to bridge these domains determines whether a pesantren becomes stagnant or thrives in the modern context.

Beyond serving as centers of religious learning, pesantren are increasingly reclaiming their role as engines of civilizational revival. By integrating Islamic economic principles with digital innovation, they foster not only financial independence but also broader societal leadership rooted in Islamic ethics. These institutions cultivate future community leaders, ethical entrepreneurs, and agents of socio-economic resilience, aligning with the classical Islamic vision of a flourishing civilization grounded in knowledge (*'ilm*), justice (*'adl*), and compassion (*ihsan*). In this way, the

adaptive transformations of pesantren in the digital era represent not merely survival strategies, but deliberate efforts to renew Islamic civilization in the modern context. Their revival of tradition through innovation signals a profound contribution to the global ummah's ongoing journey toward ethical modernity.

## Conclusion

This study explored the evolving role of pesantren in Indonesia amid the pressures and opportunities of digitalization and Islamic economic transformation. Through qualitative research in Parungpanjang, the study identified four distinct institutional models Digital, Waqf-Supported, Hybrid, and Traditional Pesantren each representing a unique adaptation to technological and financial challenges.

The findings underscore that pesantren, while deeply rooted in religious tradition, are not passive entities. They reflect an ongoing historical pattern of adaptation, now shaped by digital tools, economic strategies, and changing societal expectations. Digital finance systems and waqf optimization, when aligned with the pesantren's core values, offer powerful mechanisms for sustainability and self-reliance.

However, disparities in digital literacy, infrastructure, and strategic planning persist. Most pesantren remain in transitional or underdeveloped states, highlighting the need for support structures that do not compromise their autonomy or spiritual mission.

**Strategic Recommendations:** Develop Institutional Typology-Based Policies - Policymakers and funders should use typological frameworks to tailor interventions that respect institutional context and capacity. A one-size-fits-all approach risks alienating more traditional pesantren.

Invest in Digital Finance and Waqf Literacy - Capacity-building programs should target administrators and waqf managers with training in: Digital accounting; Crowdfunding platforms; Islamic financial regulation.

Promote Infrastructure and Partnership Development - Expand access to broadband and basic IT infrastructure; Facilitate partnerships with Islamic fintech and waqf institutions; Offer grants or incentives for digital platform adoption.

Respect Institutional Autonomy and Religious Identity - Any modernization program should begin with dialogue, trust-building, and alignment with Islamic values. Pilots and prototypes can help demonstrate value without triggering resistance.

Integrate Digital, Economic, and Educational Functions Holistically - Support pesantren in creating unified strategies that align education, financial management, and digital operations into a coherent vision of institutional sustainability.

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