

Transformation of Islamic Boarding Schools and Islamic Higher Education in Responding to Globalization Challenges: Institutional Adaptation and Innovation Strategies

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ABSTRACT

This study aims to analyze the transformation of Islamic boarding schools (*pesantren*) and Islamic higher education institutions in responding to globalization challenges, focusing on institutional adaptation and innovation strategies. This research employs a qualitative approach with library research type. Data were collected from various scientific literature, academic journals, books, research reports, and official documents published between 2016 and 2026. The findings indicate that *pesantren* have transformed through three main dimensions: integration of the education system combining traditional *diniyah* curriculum with modern formal education, digitalization of learning through information technology utilization, and strengthening religious moderation, tolerance, and nationalism. Meanwhile, Islamic higher education institutions have transformed through integration of religious and general sciences using the integrative-interconnective approach, strengthening research and publication culture including international indexed publications, and internationalization through global cooperation, exchange programs, and the use of international languages. This study reinforces the argument that the resilience of the *pesantren* education system is supported by four system functions: adaptation to the educational environment, clear educational objectives, integration of institutional systems and curriculum, and maintenance of cultural value systems. This study concludes that the transformation of Islamic educational institutions is an inevitability that must be carried out comprehensively by preserving spiritual and cultural aspects while adapting to modern demands. The findings imply the need for sustainable strategies, including improving educator quality through continuous training, modernizing institutional governance, strengthening multi-sector collaboration, and developing institutional economic independence.

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1. Introduction

The era of globalization has brought fundamental changes to various aspects of human life, including the education system. The rapid flow of information, technological advancements, and socio-cultural shifts has created both opportunities and challenges for educational institutions worldwide. Islamic educational institutions, particularly Islamic boarding schools (*pesantren*) and Islamic higher education institutions, are not exempt from these pressures. Globalization demands that these institutions adapt and transform without losing their essential identity and core values (Azra, 2018; Hefner, 2019).

Pesantren, as the oldest Islamic educational institutions in Indonesia, face significant pressure to modernize their systems while preserving their traditional character. Historically, *pesantren* focused on the transmission of classical Islamic texts (*kitab kuning*) through distinctive methods such as *sorogan* and *bandongan* (Lukens-Bull, 2021; Tan, 2014). However, the demands of the global era require *pesantren* to integrate general knowledge, digital technology, and life skills into their curricula. This integration is not merely about adding new subjects but about creating a holistic educational model that produces graduates who are both religiously competent and globally competitive (Wahyudi & Azra, 2019; Jaenullah, Utama, & Setiawan, 2022).

Similarly, Islamic higher education institutions in Indonesia, including *Sekolah Tinggi Ilmu Tarbiyah* (STIT) and *Institut Agama Islam Negeri* (IAIN) that have transformed into *Universitas Islam Negeri* (UIN), are undergoing rapid transformation. The paradigm shift from a dichotomous approach that separated religious and general sciences toward an integrative-interconnective paradigm has become a hallmark of these institutions (Abdullah, 2020; Munir & Khoiruddin, 2020). This transformation encompasses the integration of knowledge systems, strengthening research and publication culture, internationalization of campuses, and the development of new study programs that respond to labor market needs (Alwi, 2019; Huda & Hanif, 2021; Fauzi, 2019).

Despite these progressive changes, the transformation process of both *pesantren* and Islamic higher education institutions faces significant challenges. Research has identified several persistent obstacles, including limited human resource capacity, particularly in mastering educational technology and foreign languages; inadequate infrastructure and research funding; and resistance to change from traditional elements who perceive rapid modernization as a threat to classical scholarly authority (Prastowo & Arifin, 2019; Hasanah, 2022; Asy'ari & Madjid, 2018; Jaenullah & Sudadi, 2018). These challenges are not unique to one type of institution but are shared across the Islamic education sector.

The study by Jaenullah, Utama, & Setiawan (2022) provides a crucial theoretical lens for understanding the resilience of the traditional *pesantren* education system. They argue that *pesantren* possess strong sustainability due to four interconnected system functions: (1) an adaptation system to the educational environment through a 24-hour education pattern; (2) clear educational objectives focused on shaping students' moral character; (3) integration of institutional systems and curriculum; and (4) maintenance of cultural patterns and value systems within the *pesantren*. These functions enable *pesantren* to navigate the pressures of globalization while maintaining their spiritual core.

Furthermore, Jaenullah & Sudadi (2018) emphasized that although *pesantren* must continue to evolve in terms of educational systems and management to face the demands of the times, the core spirituality that colors the *pesantren's* educational system and management must be preserved. This spiritual foundation is what distinguishes Islamic

educational institutions from their secular counterparts and serves as their unique selling point in the global arena (Pratiwi et al., 2026).

Existing literature has discussed various aspects of transformation in Islamic educational institutions separately, either focusing on *pesantren* or on Islamic higher education. However, few studies have attempted to compare and integrate the transformation patterns of both types of institutions simultaneously. The novelty of this study lies in its effort to construct an integrative mapping that identifies the transformation dimensions, common challenges, and adaptive strategies of both *pesantren* and Islamic higher education institutions in responding to globalization pressures.

Therefore, this study aims to: (1) identify and describe the transformation dimensions of *pesantren* and Islamic higher education institutions in facing globalization; (2) analyze the main challenges encountered by both types of institutions; and (3) formulate sustainable development strategies that can be adopted to strengthen their institutional resilience and global competitiveness.

2. Method

This research employs a qualitative approach with a library research type (Zed, 2018). The research design is descriptive-analytical, which aims to describe the phenomenon of *pesantren* and Islamic higher education transformation systematically and factually, then analyze it based on relevant theoretical frameworks (Creswell & Poth, 2018). The researcher acts as the primary instrument who searches, collects, analyzes, and interprets data from various written sources.

The primary data sources consist of various scientific literature, including academic journals, books, research reports, and official documents related to the transformation of Islamic education in the context of globalization, with a focus on publications from 2016 to 2026. The secondary data sources include policy documents from the Ministry of Religious Affairs, *pesantren* statistical reports, and strategic plans of Islamic universities, including official documents from STIT Buntet *Pesantren* Cirebon.

The sample was selected purposively based on the following criteria: (1) relevance to the research theme, (2) publication period between 2016 and 2026, (3) credibility of the source (accredited journals, reputable publishers), and (4) accessibility of full text.

Data collection techniques were carried out through documentation studies by tracing, selecting, and analyzing various written sources from academic databases such as Google Scholar, Scopus, and ScienceDirect (Bowen, 2009). The instrument used was a documentation sheet that included categories of transformation forms, challenges faced, and development strategies. The research was conducted for three months, from October to December 2025.

Data analysis was performed using the content analysis method with the following stages: (1) data reduction by selecting and simplifying information related to the focus of the study; (2) data display in the form of descriptive narratives and thematic matrices; (3) conclusion drawing and verification by comparing findings from various sources (Miles, Huberman, & Saldaña, 2014).

To ensure the validity of the findings, source triangulation was carried out by comparing data from different types of literature (Flick, 2022). The limitation of this study lies in the absence of primary field data, such as interviews or direct observation; thus, the results are more theoretical and require further empirical testing.

3. Finding and Discussion

Findings

This study identified three main findings regarding the transformation of pesantren and Islamic higher education institutions in response to globalization.

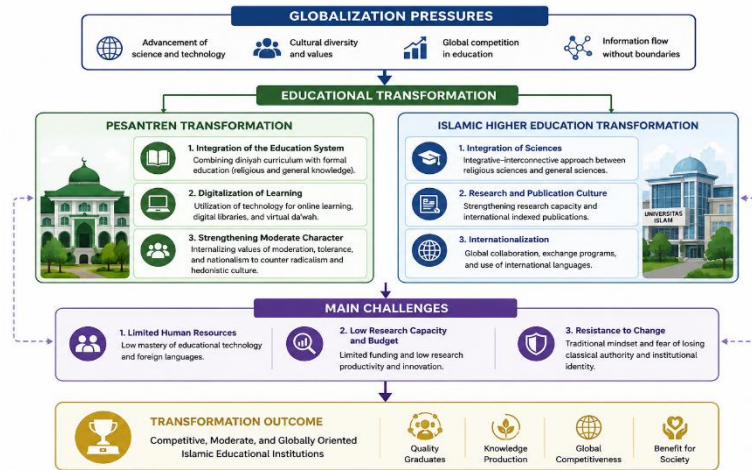


Figure 1. Conceptual Framework of the Transformation of Pesantren and Islamic Higher Education Institutions in Facing Globalization

Transformation of Pesantren

The transformation of pesantren encompasses three primary dimensions. First, integration of the education system: pesantren have developed an integrative model that combines the traditional *diniyah* education curriculum with modern formal education (SD/MI, SMP/MTs, SMA/MA/SMK). This integration allows students to acquire religious knowledge while simultaneously obtaining general skills applicable in the workforce (Tan, 2014; Wahyudi & Azra, 2019).

Second, digitalization of learning: many pesantren now utilize information technology for online learning, digital libraries, and virtual *da'wah*. The use of technology not only increases efficiency but also expands access to Islamic education for wider communities (Rohman & Ningsih, 2022; Fawaiz & Munir, 2023). Third, strengthening moderate character: pesantren internalize the values of religious moderation, tolerance, and nationalism to counter radical understandings and global hedonistic culture (Sukarno & Wibowo, 2020; Hidayat & Rosyidi, 2021).

Transformation of Islamic Higher Education Institutions

The transformation of Islamic higher education institutions includes three main aspects. First, integration of religious sciences and general sciences through the integrative-interconnective approach, where religious knowledge is no longer positioned as separate from science, technology, and social sciences (Alwi, 2019; Munir & Khoiruddin, 2020). Second, strengthening research and publication culture, including encouragement for international indexed publications. This aligns with accreditation demands and global competitiveness (Huda & Hanif, 2021; Qomar, 2018). Third, internationalization of campuses through cooperation with foreign universities, student and lecturer exchanges, and the use of international languages in learning (Syafei & Maunah, 2020; Fauzi, 2019).

Main Challenges Faced

This study identified three main challenges: (1) Limited human resources, especially in mastery of educational technology and foreign languages (Prastowo & Arifin, 2019;

Hasanah, 2022). (2) Low research capacity and budget allocation for research and innovation (Manshur & Hakim, 2020; Sholeh, 2021). (3) Resistance to change, particularly from traditional elements within pesantren and some lecturers in Islamic universities who perceive rapid changes as threatening classical scholarly authority (Asy'ari & Madjid, 2018; Nurhayati, 2020).

Table 1. Summary of Transformation Dimensions and Challenges

Institution	Transformation Dimensions	Main Challenges
Pesantren	a. Integration of the education system b. Digitalization of learning c. Religious moderation	a. Limited HR digital skills b. Infrastructure constraints c. Traditional resistance
Islamic Higher Education	a. Integration of sciences b. Research culture c. Internationalization	a. Low research productivity b. Budget limitations b. Institutional resistance

Source: Jaenullah, Utama, & Setiawan (2022); Tan (2014); Abdullah (2020)

Table 1 presents a comparative summary of the transformation dimensions and primary challenges encountered by two types of Islamic educational institutions: Islamic boarding schools (pesantren) and Islamic higher education institutions. This table organizes the research findings into three transformation dimensions for each institution type, alongside three corresponding major challenges. For pesantren, the transformation focuses on three key areas: educational system integration, digitalization of learning, and the reinforcement of religious moderation. The operational challenges faced include limited digital human resources, infrastructure constraints, and resistance from traditional elements within the pesantren environment.

In contrast, Islamic higher education institutions transform the integration of religious and general sciences, the strengthening of research and publication culture, and internationalization efforts. The challenges encountered in this context are more institutional in nature, such as low research productivity, budget limitations, and institutional resistance to change. This table enables readers to simultaneously understand the distinct characteristics and complexities of the transformation processes occurring in both types of Islamic educational institutions.

Discussion

The findings reinforce the argument that the transformation of Islamic educational institutions is an inevitability, not a choice. In the context of learning in the digital era, innovation is reflected in the integration of digital technology, application of innovative pedagogical models, and adoption of student-centered learning approaches (Zainuddin, 2023; Nugroho & Astutik, 2024). Furthermore, integrating digital innovation with multicultural values plays a significant role in fostering inclusive and tolerant attitudes among students (Hidayat et al., 2026; Ramadhani et al., 2026).

Research on marketing strategies of Islamic educational institutions during globalization emphasizes the importance of cultural capital and local religiosity values in maintaining institutional identity (Pratiwi et al., 2026). For pesantren-based higher education institutions like STIT Buntet Pesantren, which adheres to the *Ablussunnah Wal Jama'ah* (Aswaja) school of thought, the preservation of local Islamic values becomes a unique selling point that distinguishes them from general universities (Hefner, 2019; Tan, 2014).

Studies on Islamic education in the globalization era highlight the challenges of modernity and the strengthening of Islamic values (Hidayat et al., 2026; Kunduz University, 2025). Globalization has brought significant changes to various aspects of life, including the education system. Islamic education must adapt without losing its essential identity (Van Bruinessen, 2013; Wahid, 2017). The role of Islamic education in the globalization era is crucial in shaping a generation that is not only intellectually intelligent but also has a strong spiritual and moral foundation (Sutrisno, 2019; Anshori, 2018).

The transformation of pesantren-based Islamic higher education can be understood through the lens of institutional isomorphism theory, which explains how educational institutions adapt to environmental pressures without entirely abandoning their core identity (DiMaggio & Powell, 1983; Lukens-Bull, 2021). In the case of STIT Buntet Pesantren, the plan to transform into IAI Buntet Pesantren and open new study programs, such as Sharia Business Management, reflects the adoption of business school models commonly found in modern universities (STIT Buntet Pesantren, 2024). However, the institution maintains its distinctiveness through its Aswaja identity and pesantren-based learning culture (NU Online Jabar, 2021; Lukens-Bull, 2021).

The study by Jaenullah, Utama, & Setiawan (2022) reinforces the findings of this research regarding the resilience of the traditional pesantren education system in the midst of globalization. Their study revealed that pesantren possess strong sustainability and continuity due to four system functions: (1) an adaptation system to the educational environment through a 24-hour education pattern; (2) clear educational objectives to shape students' moral character; (3) integration of institutional systems and curriculum; and (4) maintenance of cultural patterns and value systems within the pesantren (Jaenullah et al., 2022).

These findings align with the results of this study, which show that pesantren have transformed through strengthening moderate character and educational integration without losing their fundamental identity. Furthermore, Jaenullah & Sudadi (2018) emphasized that although pesantren must continue to evolve in terms of educational systems and management to face the demands of the times, the core spirituality that colors the pesantren's educational system and management must be maintained. This is relevant to the sustainable development strategies proposed in this study, particularly the need for transformation that is not merely structural but also preserves the spiritual and cultural aspects of pesantren.

The novelty of this study lies in the identification of simultaneous transformation patterns between pesantren and Islamic universities, which are often discussed separately in previous literature (Rosyid, 2017; Saifulloh, 2019). This study shows that the two institutions, although different in origin and tradition, face similar challenges and can learn from each other's transformation strategies. The transformation plan of STIT Buntet Pesantren to become IAI Buntet Pesantren, along with the opening of new study programs outside the field of education, such as Sharia Business Management, shows significant institutional expansion (STIT Buntet Pesantren, 2024; Azra, 2018). This reflects the adaptation of pesantren-based higher education to labor market needs without abandoning its religious identity (Abdullah, 2020; Zuhri, 2019).

Based on these findings, several sustainable development strategies can be formulated: (1) improving educator quality through continuous training, especially in digital pedagogy and foreign languages; (2) modernizing institutional governance to be more transparent, accountable, and technology-based; (3) strengthening multisector

collaboration with government, businesses, and educational institutions at national and international levels; (4) developing institutional economic independence through productive business units managed professionally (Muhaimin & Muslikhah, 2020; Faizin, 2021).

4. Conclusion

The transformation of pesantren and Islamic higher education institutions is a necessity in facing the challenges of globalization marked by technological developments, rapid information flows, and sociocultural changes. Pesantren have demonstrated adaptive capacity through the development of an integrative education system that combines Islamic scientific traditions with modern science, strengthening digital literacy, and fostering character and religious moderation. Meanwhile, Islamic higher education institutions are transforming through the integration of religious and general sciences, strengthening academic and research culture, and the internationalization of Islamic higher education.

However, the transformation process still faces various challenges, including limited human resources, low technological and research capacity, and resistance to change. Therefore, sustainable development strategies are needed through improving the quality of educators, modernizing institutional governance, strengthening national and international collaboration, and developing the economic independence of Islamic educational institutions.

This study implies that the transformation of pesantren and Islamic higher education institutions must be carried out comprehensively, not only in structural aspects but also in cultural and spiritual aspects. The results of this study can be used as a reference for policymakers, pesantren leaders, and Islamic university rectors in formulating more adaptive transformation strategies. For further research, it is recommended to conduct empirical studies using mixed methods in various pesantren and Islamic universities to test the effectiveness of the strategies identified in this study.

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