Institutional Transformation of *Pesantren* in the Era of Disruption: Analysis of Structural Problems and Development Strategies Based on Local Wisdom

Budi Harto[1], Wedra Aprison[2]
[1]STIE El Hakim, Indonesia
[2]Universitas Islam Negeri Sjech M. Djamil Djambek Bukittinggi, Indonesia
✉budiharto212@gmail.com *

Abstract

This study analyzes the dynamics of institutional transformation in Islamic boarding schools in Indonesia in the face of the digital disruption era, which is characterized by rapid social, technological, and educational changes. Using a systematic literature review of 45 articles indexed in Scopus and SINTA 1-2 for the period 2018-2024, this study identifies three main structural problems that hinder the transformation of Islamic boarding schools: cultural resistance to innovation, limited institutional capacity, and dualism in the education system. The findings were analyzed through the triangulation of three theoretical frameworks: Talcott Parsons' structural-functional theory, Douglass North's institutional theory, and Jack Mezirow's Transformative Learning theory. The synthesis resulted in a holistic transformation model based on local wisdom that integrates five strategic dimensions: leadership transformation, curriculum, pedagogy, management, and external networks. This model emphasizes the importance of Kyai leadership as Norm Entrepreneurs, the integration of traditional values with modern innovation, and the continuous strengthening of organizational capacity.

INTRODUCTION

Islamic boarding schools, as the oldest Islamic educational institutions in Indonesia, play a strategic role in shaping the character and intellectuality of Muslims (Al Faruq et al., 2025). The existence of Islamic boarding schools, which has lasted for centuries, proves their irreplaceable relevance and contribution in maintaining the continuity of Islamic scientific traditions (Hamidah & Chasannudin, 2021). Ideally, Islamic boarding schools are expected to become centers of knowledge development that integrate Islamic values with modern academic competencies, producing graduates who have spiritual depth, emotional maturity, and intellectual excellence to respond to the challenges of the times (Yusuf & Ali, 2025). The transformation of Islamic boarding schools into educational institutions that are responsive to social change while maintaining their religious identity is a necessity in the era of

globalization and the fourth industrial revolution (Ramadhan et al., 2024). *Pesantren* must be able to adapt dynamically without losing their classical scholarly spirit, develop a comprehensive curriculum that balances religious and general knowledge, and build a modern management system that is professional and sustainable.

However, empirical reality shows a significant gap between the ideal and the actual conditions of Islamic boarding schools in Indonesia. Data from the Ministry of Religious Affairs in 2023 shows that of the 28,194 Islamic boarding schools spread across Indonesia, only about 35% have integrated the formal education system with Islamic boarding school traditions (Ni'am & Arafah, 2024). The majority of Islamic boarding schools still maintain a purely traditional education model without significant adaptation to the competency requirements of the 21st century. The structural problems faced by Islamic boarding schools are very complex, including internal resistance to curriculum change (Hanif et al., 2024), limited human resources with dual competencies, minimal technological infrastructure with only 42% of Islamic boarding schools having adequate internet access, and a charismatic kyai-based management system without a standardized organizational structure (Firdaus et al., 2025). The COVID-19 pandemic has exacerbated the situation by forcing accelerated digitalization that is not matched by infrastructure readiness and digital competencies (Supriyono, 2022).

Previous studies have explored various aspects of *pesantren* transformation (Ardiansyah et al., 2021). Studies on *pesantren* modernization reveal a fundamental dilemma between preserving tradition and adopting innovation (Syah et al., 2025). Research on change management shows that visionary kyai leadership, openness to stakeholders, and alumni participation are the main determinants of successful transformation (Hidayah et al., 2024). Studies on technology integration find that the adoption of digital technology still faces strong cultural and structural barriers (Rochim et al., 2025). However, these studies tend to be partial and do not provide a comprehensive framework that holistically integrates the various dimensions of transformation. The identified research gap shows a lack of studies that integrate structural problem analysis with strategic solutions based on the sociocultural context of Indonesian Islamic boarding schools (Surip et al., 2024). The majority of studies focus on a single aspect without looking at the systemic interconnections between the dimensions of transformation (Ramadhan et al., 2024). There is no theoretical framework that explains the mechanism of *pesantren* transformation by considering the uniqueness of the institution as a community-based institution with distinctive value systems and organizational culture (Surip et al., 2024). Research on transformation strategies also pays little attention to sustainability and scalability (Sholeh et al., 2025). An empirical gap is evident in the lack of longitudinal data tracking the long-term impact of transformation on graduate quality (Sukino et al., 2023).

The novelty of this research lies in the development of a holistic transformation model that systematically integrates five key dimensions. The first dimension is the transformation of the curriculum based on 21st-century competencies while maintaining the depth of classical Islamic scholarship. The second dimension is the transformation of leadership from a charismatic-traditional model to transformational-collaborative leadership. The third dimension is the transformation of pedagogy from conventional learning to technology-based active learning. The fourth dimension is the transformation of management from an informal system to modern standardized management. The fifth dimension is the transformation of networks through the strengthening of strategic partnerships with universities, industry, and government. This model is built on an in-depth synthesis of social change theory, institutional theory, transformative learning concepts, and best practices in *pesantren* transformation. The theoretical contribution of this

research is the formulation of a framework that is sensitive to the sociocultural context of Indonesian *pesantren*. Practically, the research offers an applicable implementation roadmap for *pesantren* managers of various scales and characteristics, as well as a basis for Islamic education policymakers in designing effective *pesantren* strengthening programs.

METHODS

This study uses a literature review approach with content analysis methods to examine the problems and solutions of Islamic boarding school transformation in Indonesia in the context of the digital disruption era. The content analysis method was chosen for its ability to systematically and objectively analyze the content of communication from various written sources, identify patterns of meaning, and develop a deep understanding of social phenomena through the interpretation of academic texts (Engkizar et al., 2023; 2024; 2025; Hamdi & Desvia, 2025; Komor & Grzyb, 2023; Okenova et al., 2025; Oktavia et al., 2020; Putri et al., 2021; Ummah et al., 2025). The content analysis approach used is qualitative, oriented towards a deep understanding of the context, meaning, and conceptual relationships in the literature on *pesantren* transformation. Qualitative content analysis allows researchers not only to identify main themes, but also to understand the context in which the themes arise, interpret implicit meanings, and reveal the theoretical and ideological assumptions underlying various perspectives (Armita, 2025; Aryasutha et al., 2025; Lindgren et al., 2020).

The research stages were carried out systematically through several interrelated phases. The first phase was to determine the focus of the research and formulate specific research questions, including identifying structural problems that hinder the transformation of Islamic boarding schools, patterns of adaptation of Islamic boarding schools, factors determining success, and models of transformation that are appropriate to the sociocultural context of Indonesian Islamic boarding schools. The second phase is the collection of literature sources through systematic literature searches using various academic databases (Carrera-Rivera et al., 2022; Engkizar et al., 2025). The third phase is the selection and evaluation of sources based on relevance and quality criteria. The fourth phase is in-depth reading and systematic recording to identify key information and important findings. The fifth phase is content analysis through coding and categorization of themes using an inductive-deductive approach (Sauer & Seuring, 2023).

The sixth phase is the synthesis and interpretation of findings by integrating various theoretical perspectives. The final phase is the development of a theoretical framework that provides theoretical and practical contributions (Ps et al., 2024). The data sources are scientific journal articles that have undergone peer review and were published between 2018 and 2024 to ensure their relevance and topicality in the context of contemporary *pesantren* transformation (Azarian et al., 2023). The selection of this six-year period covers the pre-pandemic phase, the COVID-19 pandemic period that forced the acceleration of digitalization, and the post-pandemic recovery phase that featured new adaptations in *pesantren* educational practices (Muka et al., 2020). The databases used include Scopus as a leading international database, Web of Science for publications with high impact factors, Google Scholar to expand the scope, and the SINTA accredited national journal portal for local literature relevant to the Indonesian context (Kumar, 2023).

The literature search strategy was conducted systematically using a combination of keywords in English and Indonesian. English keywords included "*pesantren* transformation," "Islamic boarding school," "*madrasah* modernization," "Islamic education reform," "educational innovation," "institutional change," and "digital disruption in Islamic education." Indonesian keywords included

"transformasi *pesantren*" (*pesantren* transformation), "Islamic Education", "institutional change", "*pesantren* modernization", "educational innovation", and "*pesantren* digitization". Keyword combinations were used with Boolean operators AND and OR to generate specific search results (Gusenbauer & Gauster, 2025). Searches were also conducted through snowballing or backward citation tracking (Rogge et al., 2024). The inclusion criteria were strict to ensure quality and relevance. The first criterion was substantive relevance; articles had to discuss the institutional transformation of Islamic boarding schools or similar Islamic educational institutions with a focus on aspects of organizational change, curriculum, management, or pedagogy (Neumann & Suen, 2018).

The second criterion is publication quality; articles must be published in reputable journals that are at least indexed in Scopus or accredited by SINTA 1-2 (Steffen et al., 2024). The third criterion is clear and transparent methodology. The fourth criterion is full-text accessibility for in-depth analysis. The fifth criterion is that the publication must be in Indonesian or English (Costal et al., 2021). The exclusion criteria cover several categories. The first category is the type of publication, such as conference articles that have not been published in journals, books without standard journal peer review, and theses that have not been published as journal articles. The second category is publications without peer review, such as opinion articles or blogs. The third category is articles without adequate methodological information (Hiebl, 2023). The fourth category is articles that are too general and do not specifically discuss Islamic boarding schools. The fifth category is articles that are too narrow, only discussing certain technical aspects without the context of institutional transformation (Carrera-Rivera et al., 2022).

The literature selection process was carried out through several screening stages. The first stage was title screening with 230 potential articles. The second stage was abstract screening, which resulted in 156 articles (Usman et al., 2023). The third stage was full-text reading for in-depth evaluation (Page et al., 2021). The fourth stage was quality evaluation using a checklist that included clarity of research questions, appropriateness of methodology, adequacy of data, depth of analysis, validity of interpretation, and contribution to knowledge. Through this rigorous selection process, 45 articles were obtained as the main basis for analysis. Content analysis techniques were carried out using a qualitative approach that emphasized a deep understanding of meaning and context. The analysis process began with repeated reading or immersion in all selected articles to obtain a holistic understanding (Vears & Gillam, 2022). The next stage was coding, in which units of analysis in the form of paragraphs, sentences, or meaningful text segments were identified and coded based on themes. Coding is done inductively by allowing themes to emerge from the data, as well as deductively by using a theoretical framework as a lens for analysis (Alyaqoub et al., 2024). The codes were then categorized into broader themes through a categorization process and organized into a hierarchical structure that shows the relationships between categories (Lyhne et al., 2025). Content analysis uses three main complementary theoretical frameworks. The first framework is Talcott Parsons' structural-functional theory to analyze Islamic boarding schools as social systems that must fulfill four basic functions: Adaptation, Goal Attainment, Integration, and Latency (Nargiza et al., 2023). The second framework is Douglass North's institutional theory, which distinguishes between formal and informal institutions to analyze barriers to modernization (Spanuth & Urbano, 2024). The third framework is Jack Mezirow's transformative learning theory, which explains how individuals can change their frames of reference through critical reflection (Rojo et al., 2023).

Interpretation and synthesis of findings were conducted by integrating the results of analyses from 45 articles with the three theoretical frameworks to produce

a comprehensive understanding. The synthesis process involved identifying consistent patterns across articles, understanding contradictions or tensions in the literature, and developing new insights from the dialogue between different perspectives (Flemming & Noyes, 2021). Theoretical triangulation allows for richer analysis and captures the complexity of the phenomenon from multiple perspectives (Vivek et al., 2023). The validity of the findings was maintained through several strategies. The first strategy was member checking, which involved three Islamic education experts who provided critical feedback on the analysis results. The second strategy is peer debriefing by discussing findings periodically with fellow researchers from various disciplines. The third strategy is audit trail by documenting the details of the entire analysis process. The fourth strategy is reflexivity, where researchers reflect on their positions, assumptions, and biases that may influence interpretation (Ahmed, 2024).

RESULT AND DISCUSSION
Structural Problems of *Pesantren* Transformation

An in-depth analysis of the literature shows that *pesantren* transformation faces three main categories of structural problems that are interrelated and form systemic barriers to institutional change.

First Problem: Cultural Resistance to Change

The most fundamental problem is cultural resistance stemming from deep tensions between traditionalism and modernity within the *pesantren* community. As institutions that preserve classical Islamic traditions, *pesantren* have reasonable concerns that adopting modern education systems could erode spiritual values and the unique methodology of learning from classical Islamic texts, which has proven effective for centuries (Yuningsih et al., 2023). Findings show that 42% of *pesantren* experience internal conflict when introducing new curricula or innovative learning methods, with the strongest resistance coming from senior *ustadz* who view change as a threat to their traditional scholarly authority (Syah et al., 2025). This phenomenon of cultural resistance creates complex internal polarization between conservative groups that reject change and progressive groups that desire modernization, which can weaken social cohesion within the *pesantren* community and hinder the effective implementation of transformation policies (Dalimunthe & Sinulingga, 2023).

Second Problem: Institutional Capacity Limitations

The second significant problem is institutional capacity limitations, which include human resources, physical and technological infrastructure, and financial capacity, all of which are interrelated. Data shows that 68% of Islamic boarding schools face serious difficulties in recruiting and retaining teachers who have adequate academic qualifications and modern pedagogical competencies (Rohman & Muhid, 2022). The majority of Islamic boarding school teachers are alumni of Islamic boarding schools with a purely traditional educational background without sufficient exposure to contemporary learning methodologies or educational technology (Hosaini et al., 2024). Limitations in technological infrastructure are very noticeable, with only 42% of Islamic boarding schools having a stable and adequate internet connection, 35% having computer laboratories with sufficient equipment, and less than 20% using a Learning Management System to manage learning systematically (Oktaria et al., 2023). Financial limitations further exacerbate the situation, with 71% of Islamic boarding schools still relying on student fees and irregular donations as their main source of income, without diversifying their income sources through productive business units or endowment funds that can provide sustainable income (Parlan et al., 2024).

Third Problem: Dualism in the Education System

The third problem, which is no less crucial, is the dualism in the education system, which is not integrated between formal and non-formal education in Islamic boarding schools. Approximately 55% of Islamic boarding schools that provide formal education, such as madrasahs or schools, experience a sharp dichotomy between the study of classical Islamic texts in the dormitories and the study of general subjects in formal classrooms, as if the two were separate and unrelated systems (Hidayati et al., 2024). There is no systematic epistemological integration between religious and general knowledge, causing students to experience fragmentation of knowledge that hinders the formation of a holistic worldview ('Aziz, 2022). The evaluation systems and graduation standards between the two systems are also not harmoniously integrated, creating confusion about the definition of educational success in Islamic boarding schools. This dualism is also reflected in the organizational and management structure, where the management of formal madrasahs is separate from the management of *pesantren*, with different leadership, separate administrative systems, and in some cases even conflicts of authority (Kusumawati & Nurfuadi, 2024).

Patterns of Adaptation in Islamic Boarding Schools to Change

Content analysis identified four distinct patterns of adaptation in how Islamic boarding schools respond to demands for transformation, reflecting the diversity of strategies and choices made based on specific contexts, leadership, and available resources.

First Model: Selective Adaptation

This model involves incremental and gradual changes to certain aspects while maintaining core values and traditional practices. The selective adaptation model is adopted by around 38% of *pesantren* that offer formal education programs, adopt technology in administration, or introduce several new learning methods, while still maintaining the dominance of classical Islamic texts and the authority of the kyai in strategic decision-making (Syah et al., 2025). The advantage of this pattern is minimal internal resistance and the ability to maintain the identity of the *pesantren*, but the disadvantage is the slow pace of change and the risk of falling behind *pesantren* that are more aggressive in innovating.

Second Model: Radical Transformation

Implemented by around 15% of Islamic boarding schools, generally modern boarding schools that were established with a vision of modernization from the outset or traditional boarding schools that are experiencing an existential crisis. *Pesantren* in this category undergo fundamental and comprehensive changes in all institutional dimensions, including reorientation of their vision and mission, total curriculum redesign (Ni'am & Arafah, 2024), management and governance restructuring (Suryani et al., 2024), and massive infrastructure upgrading. This radical transformation is usually triggered by a generational change in leadership from senior clerics to their sons or daughters who have received a modern education (Widodo et al., 2024), or a crisis caused by a drastic decline in the number of students that threatens the sustainability of the *pesantren*. The advantage of this pattern is a significant increase in competitiveness and graduate quality, but the risk is the potential loss of the *pesantren's* unique identity and strong resistance from alumni and traditional communities.

Model Three: Adaptive Resistance

A unique model practiced by around 32% of Salafi *pesantren*, which actively and consciously reject change and instead strengthen their commitment to classical learning traditions as a strategic response to the pressures of modernization (Nurmahmudah, 2023). *Pesantren* in this category do not merely passively preserve tradition, but proactively make tradition preservation their unique selling proposition

that distinguishes them from modern *pesantren*, actively attracting students seeking authentic Islamic education without compromising modernity. Although it appears conservative, this pattern is actually a sophisticated adaptive strategy for survival by seeking a niche market amid competition with modern Islamic educational institutions. The main weakness of this pattern is the limited prospects for students in the formal job market and the difficulty of accessing higher education due to not having formally recognized diplomas (Parlan et al., 2024).

Fourth Pattern: Creative Innovation

The most promising pattern practiced by around 15% of Islamic boarding schools that have successfully integrated tradition and modernity through innovative approaches. Islamic boarding schools in this category have developed unique learning models such as learning classical Islamic texts using active learning methods (Syah et al., 2025), digitizing classical manuscripts using mobile applications (Supriyono, 2022), sharia-based entrepreneurial programs for *santri* (Falach et al., 2023), or research collaborations with universities to examine the relevance of classical scholars' thinking to contemporary issues. These innovations are not merely the adoption of external technologies or methods, but are original creations born from a creative dialogue between *pesantren* traditions and contemporary needs. *Pesantren* with this model are generally led by intellectual kyai who have a deep understanding of Islamic scholarly traditions as well as broad exposure to contemporary developments in education and technology. The advantage of this model is that it produces a sustainable transformation model because it grows organically from within the *pesantren* and is in line with the local culture.

Determinants of Successful Transformation

An in-depth analysis identifies five key interrelated determinants in determining the success of *pesantren* transformation.

First Factor: Kyai Leadership Character

The most crucial factor is the kyai's leadership character, which includes a transformational vision that can clearly and convincingly articulate the direction of change in the *pesantren*, openness to learning and input from various parties, and the capacity to manage resistance to change with a persuasive approach based on local wisdom. The findings show that *pesantren* led by kyai with these characteristics have a 3.2 times higher probability of successful transformation compared to *pesantren* with conservative leadership (Hidayah et al., 2024). Transformational kyai are able to create a sense of urgency regarding the need for change, build coalitions for change by involving young *ustadz* and progressive alumni, and legitimize change by referring to Islamic scholarly traditions that are adaptive to the context (Syah et al., 2025).

Second Factor: Organizational Capacity

This includes the availability of financial resources, managerial competence of administrators, and infrastructure to support transformation. Islamic boarding schools with financial sustainability through diversification of income sources have greater flexibility in investing funds for human resource development, infrastructure, and program innovation (Falach et al., 2023). The managerial competence of *pesantren* administrators in strategic planning, change management, and monitoring-evaluation is a critical factor in translating the vision of transformation into concrete, measurable programs (Bandur et al., 2022).

Third Factor: External Stakeholder Support

This includes alumni, government, universities, and the community. Successful *pesantren* alumni can be a source of financial support, networking, and legitimacy for *pesantren* transformation programs (Maulida, 2022). Government support in the form of financial assistance, teacher training, and institutional strengthening through the Ministry of Religious Affairs program provides an important stimulus (Ni'am & Arafah, 2024). Collaboration with universities opens up access for Islamic boarding

schools to the latest knowledge and practices in education, collaborative research, and improvement of *ustadz* qualifications.

Fourth Factor: Organizational Culture

Pesantren with a culture that emphasizes continuous improvement, appreciation for creativity, and tolerance for experimentation create a psychological climate that is safe for teachers and students to try new approaches (Yusuf & Ali, 2025). A culture of openness where ideas can be communicated freely facilitates more sustainable bottom-up innovation (Suryani et al., 2024). Islamic boarding schools that develop a learning organization culture where mistakes are seen as learning opportunities, practice reflection becomes routine, and sharing best practices is systematically encouraged experience more sustainable innovation (Supriyono, 2022).

Fifth Factor: Clarity and Appropriateness of Strategy

There is no one-size-fits-all transformation strategy, so Islamic boarding schools need to conduct an in-depth contextual analysis to understand the specific strengths, weaknesses, opportunities, and threats they face (Ni'am & Arafah, 2024). A successful transformation strategy is one that is aligned with the vision and mission of the Islamic boarding school, takes into account the existing organizational capacity, and is responsive to the needs of students and the demands of stakeholders. *Pesantren* that undergo incremental and planned transformation with a clear roadmap tend to be more successful. The importance of regular monitoring and evaluation to identify progress and make strategic adjustments is also a determining factor in the successful implementation of transformation (Fahrurrozi et al., 2025).

Analysis of Transformation Problems from the Perspective of Talcott Parsons' Structural-Functional Theory

Pesantren can be understood as a complete and complex social system, which according to Talcott Parsons' analytical framework must fulfill four functional requirements known by the acronym AGIL in order to maintain the balance or equilibrium of the system. AGIL consists of Adaptation (the system's ability to adapt to the external environment), Goal Attainment (the system's ability to set and achieve goals), Integration (the system's ability to coordinate various components), and Latency or Pattern Maintenance (the system's ability to maintain internalized patterns of values and norms) (Solihin & Bukhori, 2022). In the context of *pesantren* transformation, the failure to achieve an optimal balance between these four functions manifests itself as a structural problem that hinders effective and sustainable institutional change (Sukino et al., 2023). The most fundamental tension occurs between the Adaptation function and the Latency or Pattern Maintenance function.

The findings of the study identified that cultural resistance to educational innovation occurred in 42% of Islamic boarding schools, stemming from the inherent tension between the system's need to adapt to external demands such as digitization, 21st-century competencies, and changing stakeholder expectations, with the system's need to maintain core values and cultural traditions that have been internalized for centuries (Hanif et al., 2024).

Strong resistance from senior *ustadz* who are concerned that the adoption of a modern curriculum could erode their spiritual values and traditional scholarly authority is a manifestation of the system's efforts to activate cultural defense mechanisms or latency functions in response to perceived threats from change (Syah et al., 2025). This has resulted in a very slow pace of adaptation, as shown by data indicating that only about 35% of Islamic boarding schools have successfully integrated the formal education system with Islamic boarding school traditions, and only 42% have adequate internet access to support digital learning (Supriyono, 2022). The third structural problem, namely the unintegrated dualism of formal and non-formal education systems experienced by 55% of Islamic boarding schools, is the

clearest manifestation of the failure of the Integration function in Parsons' analytical scheme (Ni'am & Arafah, 2024).

The function of integration requires internal cohesion and effective coordination between subsystems within an organization. In the context of Islamic boarding schools, formal education subsystems such as madrasas and non-formal subsystems such as classical Islamic text study in dormitories operate dichotomously and separately, as if they were different entities with different objectives. This fragmentation occurs not only at the managerial level, where the organizational structure of madrasahs is separate from *pesantren* management, but more fundamentally at the epistemological level, where *santri* experience fragmentation of knowledge due to the absence of an integrative curriculum framework that connects religious knowledge with general knowledge within a coherent worldview (Anwar et al., 2022).

Institutional Transformation in the Perspective of Douglass North

Douglass North's institutional theory offers a powerful analytical lens for understanding why managerial modernization efforts in Islamic boarding schools often fail or face significant obstacles even though new systems or procedures have been formally adopted (Sofi et al., 2025). North views institutions as constraints designed to shape human interactions within organizations and societies, clearly distinguishing between formal institutions, which include written rules, laws, contracts, and formal organizational structures, and informal institutions, which include traditions, customs, social norms, and mental models that are unwritten but greatly influence the actual behavior of individuals.

Research findings show that 68% of Islamic boarding schools face institutional capacity constraints, particularly in the areas of management and resources. Institutionally, this can be explained as a manifestation of fundamental friction between the need for formal rules such as modern management standards, transparent financial accountability systems, and systematic strategic planning, with the dominance of deeply rooted informal rules in the form of a charismatic kyai-based management system without a clear organizational structure, decision making based on personal relationships and trust rather than standard procedures, and a culture that emphasizes personal loyalty over professional competence (Zahirah & Suhaedi, 2025). Within North's analytical framework, effective and sustainable institutional change often requires the presence of change agents known as Norm Entrepreneurs, who have the capacity and authority to change informal norms within organizations (Widodo et al., 2024).

Transformational leadership by religious leaders has been proven to be the most crucial determining factor, with a 3.2 times higher probability of success, playing a vital role as Norm Entrepreneurs in the context of *pesantren* transformation (Hidayah et al., 2024). Transformational kyai possess a unique combination of strong religious legitimacy within the *pesantren* community, exposure to the outside world that provides perspectives on best practices in management and education, and the capacity to communicate a vision for change in language and frameworks that resonate with the values of the *pesantren* community. As Norm Entrepreneurs, transformational kyai use their very strong religious and cultural authority to legitimize the adoption of new formal rules through a top-down process in which change is not presented as the importation of foreign practices that are incompatible with Islam, but as an effort to realize Islamic values of professionalism, trustworthiness, and *ihsan* in the management of educational institutions (Al-Ghifari et al., 2024).

Transformation of the Cognitive Paradigm through Jack Mezirow's Transformative Learning Theory

Although Parsons' theory provides a structural diagnosis of functional tensions

in the social system of Islamic boarding schools and North's theory provides institutional mechanisms for understanding the friction between formal and informal rules, Jack Mezirow's Transformative Learning theory provides fundamental pedagogical and psychological solutions to overcome the roots of cultural resistance and epistemological dualism at the individual and community levels (Nasukah & Winarti, 2021). Transformative Learning focuses on the process by which individuals reflect on and change the frame of reference that underlies their beliefs, values, and assumptions about reality, so that they can see and understand the world in a different and more inclusive way (Friedman, 2022). The educational dualism that causes knowledge fragmentation in 55% of Islamic boarding schools is essentially a cognitive or epistemological problem in which students and teachers hold two separate and unintegrated sets of assumptions about the nature and value of various types of knowledge. Mezirow offers theoretical and practical mechanisms for creating the cognitive integration necessary to resolve the failure of Integration in Parsons' perspective through a process of perspective transformation. Transformative Learning in the context of Islamic education plays a very important role in changing individuals' mindsets and maturing their understanding of religion from a dichotomous understanding to an integrative and holistic understanding (Sheikh, 2020).

According to Mezirow, this transformation process begins when individuals face a disorienting dilemma or a dilemma that disrupts their cognitive balance, for example, when Islamic boarding school graduates experience failure in the modern job market because they lack the necessary competencies despite their mastery of religious knowledge (DeAngelis, 2022). Through discourse and reflective dialogue with fellow *ustadz* or with external stakeholders such as academics or education practitioners, individuals can expose their assumptions to constructive criticism and consider the validity of alternative perspectives (Asmara, 2020). When this change in perspective occurs at the level of *ustadz* as key actors in the learning process, it organically creates an organizational culture conducive to learning and innovation, which has been identified as the fourth crucial factor for successful transformation. In a transformative culture, mistakes are seen as valuable learning opportunities rather than failures to be avoided or punished, reflection on practices becomes a regular routine carried out individually and collectively for continuous improvement, and sharing best practices is systematically encouraged so that successful innovations can be disseminated throughout the organization (Madden, 2020).

Holistic Transformation Model of Islamic Boarding Schools Based on Local Wisdom

Based on a comprehensive synthesis of identified structural problems, empirical findings on adaptation patterns and success determinants, and a theoretical framework integrating Parsons, North, and Mezirow (Khanom et al., 2025), this study offers a holistic transformation framework that systematically integrates five key dimensions.

First Dimension: Leadership Transformation

This is the starting point and catalyst for the entire transformation process, in which kyai must adopt a Transformational-Collaborative Leadership model that articulates a holistic vision, builds coalitions for change, manages resistance with a persuasive approach, and creates a positive organizational culture. Kyai as Norm Entrepreneurs must be able to legitimize change through the framework of Islamic values, build trust through transparency and exemplary behavior, and develop successor planning to ensure the continuity of transformational leadership.

Second Dimension: Curriculum Transformation

Developing a holistic curriculum that integrates religious and general knowledge within a coherent epistemological framework, rather than simply adding

general subjects to the *pesantren* curriculum or vice versa. The curriculum must incorporate 21st-century competencies such as critical thinking, creativity, communication, and collaboration that are relevant to the *pesantren* context, while ensuring a balance between adaptation to contemporary demands and the preservation of core values (Widodo et al., 2024).

Third Dimension: Pedagogical Transformation

Implementing transformative learning with a student-centered approach that empowers students as active learners (Assalihee et al., 2024), integrating technology to enrich classical learning rather than replace it, and investing in teacher training to improve modern pedagogical competencies while maintaining the depth of traditional scholarship.

Fourth Dimension: Management Transformation

Formalize the organizational structure with clear job descriptions, a competency-based delegation system, and transparent accountability mechanisms. Implement digitization and transparency through integrated information systems for academic, financial, and human resource management, and build financial sustainability through diversification of revenue sources such as productive business units, endowment funds, and strategic partnerships with the private sector.

Fifth Dimension: Network Transformation

Strengthening alumni ties through active alumni organizations, well-managed alumni databases, and alumni engagement programs in *pesantren* development. Building academic and industry partnerships for *santri* internships, collaborative research, and knowledge transfer, as well as maximizing synergies with government policies to access external resources that support transformation (Adamin et al., 2025). These five dimensions must be implemented in an integrated and simultaneous manner, not sequentially, because they reinforce each other and the absence of one dimension can hinder the entire transformation process. This model emphasizes that *pesantren* transformation must be based on local wisdom, meaning that it does not adopt models from outside wholesale but adapts them to the sociocultural context and values of Indonesian *pesantren*.

CONCLUSION

Facing a complex structural trilemma that includes cultural resistance in 42% of Islamic boarding schools, limited managerial capacity in 68% of Islamic boarding schools, and dualism in the education system in 55% of Islamic boarding schools. The roots of this trilemma are functional and institutional in nature, whereby functionally, Islamic boarding schools experience tension between the need for external adaptation and the preservation of internal traditions, as well as a failure of integration between subsystems, while institutionally, there is friction between informal rules based on charisma and the need for formal rules of modern management. A sustainable solution is found in a pattern of Creative Innovation that organically combines tradition and modernity, made possible through the convergence of the transformational leadership of the kyai as Norm Entrepreneurs, the implementation of Transformative Learning to change cognitive paradigms, and the strengthening of organizational capacity through the formalization of structures and financial diversification. Based on a synthesis of empirical findings and Parsons-North-Mezirow's theoretical triangulation, this study produced a five-dimensional holistic transformation framework covering leadership, curriculum, pedagogy, management, and networking transformations, offering a comprehensive yet flexible roadmap that can be adapted to the specific context of Islamic boarding schools. The theoretical contribution of this study is substantial in validating the triangulation framework of the three theories in the context of religious community-based educational institutions, expanding the application of North's theory to the realm of

Islamic education by highlighting the role of ideology and kyai as Norm Entrepreneurs, and demonstrating that sustainable institutional change requires mechanisms for changing individual perspectives through Transformative Learning that bridges structural diagnosis and institutional strategies. The practical implications are significant for *pesantren* administrators in designing transformation, for the Ministry of Religious Affairs in designing effective strengthening programs, for academics in developing further research agendas, and for donors in identifying areas of investment that provide optimal impact.

This study has limitations because it relies entirely on literature review methods, so the findings are highly dependent on the quality, completeness, and perspective of the available literature. This approach cannot capture contextual dynamics in the field, variations in practices between Islamic boarding schools, or the responses of key actors directly. Furthermore, this study has not empirically validated the resulting holistic transformation model, so the effectiveness of the model still needs to be tested through field research, multi-case studies, or longitudinal approaches to ascertain the extent to which theoretical recommendations can be practically implemented in various types of Islamic boarding schools with different characteristics.

REFERENCES

'Aziz, H. (2022). Bridging Al-Dunya Wa Al-Diin: A Case Study on Prophetic-Integrative Education on Madrasah-Based Pesantren. *Jurnal Pendidikan Islam*, *11*(1), 27–39. https://doi.org/10.14421/jpi.2022.111.27-39

Adamin, M., Firdaus, A., & Ali, Z. M. (2025). Determinants of Successful Economic Independence in Pesantren. *The Economic Review of Pesantren*, *3*(2). https://doi.org/10.58968/erp.v3i2.550

Ahmed, S. K. (2024). The pillars of trustworthiness in qualitative research. *Journal of Medicine, Surgery, and Public Health*, *2*, 100051. https://doi.org/10.1016/j.glmedi.2024.100051

Al-Ghifari, D. H., Huda, M. M., & Haider, A. (2024). Traditional Authority of Kyai and Its Impact on Religious Moderation in East Java Pesantren. *Ijibs*, *2*(2), 129–144. https://doi.org/10.35719/ijibs.v2i2.47

Al Faruq, U., Arifuddin, N., Ma'arif, A. S., & Husniyah, F. (2025). Implementasi Pendidikan Karakter Berbasis Panca Jiwa di Pesantren: Strategi dan Tantangan dalam Era Digital. *Tarbiyatuna: Jurnal Pendidikan Ilmiah*, *10*(1), 1–18. https://doi.org/10.55187/tarjpi.v10i1.6105

Alyaqoub, R., Alsharairi, A., & Aslam, M. Z. (2024). Elaboration of Underpinning Methods and Data Analysis Process of Directed Qualitative Content Analysis for Communication Studies. *Journal of Intercultural Communication* , *24*(2), 108–116. https://doi.org/10.36923/jicc.v24i2.573

Anwar, M. S., Huda, M., & Maghfiroh, R. (2022). Integrasi Kurikulum Pesantren Dan Madrasah (Studi Kasus Di Pondok Pesantren Al-Ishlah Jenggawah Jember). *Al-Tarbawi Al-Haditsah: Jurnal Pendidikan Islam*, *7*(2), 142. https://doi.org/10.24235/tarbawi.v7i2.12013

Ardiansyah, F., Agustin, F., & Muhtadi, R. (2021). Digitalisasi Filantropi Islam Pada Pesantren Di Pulau Madura. *IQTISADIE: Journal of Islamic Banking and Shariah Economy*, *1*(2), 225–255. https://doi.org/10.36781/iqtisadie.v1i2.172

Armita, P. (2025). Digital Da'wah and Quranic Interpretation: Opportunities, Distortions, and Ethics in the Spread of Interpretations on Social Media. *International Journal of Islamic Thought and Humanities*, *4*(1), 154–164. https://doi.org/10.54298/ijith.v4i1.421

Aryasutha, R., Azizah Ria Kusrini, N., Nurul Ulya, J., & Syamsiah Septiani, N. (2025). Opportunities and Challenges for Islamic Education Teachers in Using

Artificial Intelligence in Learning. *Muaddib.Intischolar.Id*, *2*(1), 43. https://muaddib.intischolar.id/index.php/muaddib/article/view/6

Asmara, A. H. D. (2020). Fostering Religious Education for Transformation in Indonesia: Dialogue with Transformative Learning Theory. *Journal of Asian Orientation in Theology*, *02*(02), 119–148. https://doi.org/10.24071/jaot.2020.020201

Assalihee, M., Bakoh, N., Boonsuk, Y., & Songmuang, J. (2024). Transforming Islamic Education through Lesson Study (LS): A Classroom-Based Approach to Professional Development in Southern Thailand. *Education Sciences*, *14*(9). https://doi.org/10.3390/educsci14091029

Azarian, M., Yu, H., Shiferaw, A. T., & Stevik, T. K. (2023). Do We Perform Systematic Literature Review Right? A Scientific Mapping and Methodological Assessment. *Logistics*, *7*(4), 89. https://doi.org/10.3390/logistics7040089

Bandur, A., Hamsal, M., & Furinto, A. (2022). 21st Century experiences in the development of school-based management policy and practices in Indonesia. *Educational Research for Policy and Practice*, *21*(1), 85–107. https://doi.org/10.1007/s10671-021-09293-x

Carrera-Rivera, A., Ochoa, W., Larrinaga, F., & Lasa, G. (2022). How-to conduct a systematic literature review: A quick guide for computer science research. *MethodsX*, *9*(1), 101895. https://doi.org/10.1016/j.mex.2022.101895

Costal, D., Farré, C., Franch, X., & Quer, C. (2021). How Tertiary Studies perform Quality Assessment of Secondary Studies in Software Engineering. In *CIbSE 2021 - XXIV Ibero-American Conference on Software Engineering* (In arXiv p). https://doi.org/10.48550/arXiv.2110.03820

Dalimunthe, A. Q., & Sinulingga, N. N. (2023). Implementasi Pendidikan Islam Era Digital Dalam Membina Akhlak Mulia Generasi Islami. *Paedagoria :Jurnal Kajian, Penelitian Dan Pengembangan Kependidikan*, *14*(3), 362–370. https://doi.org/10.31764/paedagoria.v14i3.16129

DeAngelis, L. (2022). Enabling the Exploration of Disorienting Dilemma in the Classroom. *Journal of Education*, *202*(4), 585–600. https://doi.org/10.1177/0022057421991865

Engkizar, E., Jaafar, A., Alias, M., Guspita, B., & Albizar, R. (2025). Utilisation of Artificial Intelligence in Qur'anic Learning: Innovation or Threat? *Journal of Quranic Teaching and Learning*, *1*(2), 1–17. https://joqer.intischolar.id/index.php/joqer/index

Engkizar, E., Jaafar, A., Muslim, H., Mulyadi, I., & Putra, Y. A. (2025). Ten Criteria for an Ideal Teacher to Memorize the Quran. *Journal of Theory and Research Memorization Quran*, *1*(1), 26–39. https://joqer.intischolar.id/index.php/joqer

Engkizar, E., Jaafar, A., Sarianto, D., Ayad, N., Rahman, A., Febriani, A., & Rahman, I. (2024). Analysis of Quran Education Problems in Majority Muslim Countries. *International Journal of Islamic Studies Higher Education*, *3*(1), 65–80. https://doi.org/10.24036/insight.v3i1.209

Engkizar, E., Jaafar, A., Taufan, M., Rahman, I., Oktavia, G., & Guspita, R. (2023). Quran Teacher: Future Profession or Devotion to the Ummah? *International Journal of Multidisciplinary of Higher Education (IJMURHICA)*, *6*(4), 633–644. https://doi.org/10.24036/ijmurhica.v6i4.321

Fahrurrozi, I., Juwari, J., & Aris Masruchi, Z. (2025). Manajemen Pondok Pesantren di Era 5.0: Mengoptimalkan Pendidikan Berbasis Teknologi dan Inklusi. In *AJMIE: Alhikam Journal of Multidisciplinary Islamic Education* (Vol. 5, Issue 2). https://doi.org/10.32478/90e3q542

Falach, A. N., Ridwan, M., & Zenrif, M. F. (2023). Santripreneurship in Practice: A Model of Entrepreneurship Development at Sunan Drajat Islamic Boarding School, Lamongan. In *Economica: Jurnal Ekonomi Islam* (Vol. 14, Issue 2).

https://doi.org/10.21580/economica.2023.14.2.26006

Firdaus, F., Hendri, H., AM, R., Saputra, R., & Wahyuni, S. (2025). Cakrawala Pendidikan Islam :Isu-Isu Kurikulum, Minimnya Sdm, Keterbatasan Akses, Aspek Management Dan Daya Saing Yang Rendah. *Journal of Innovative and Creativity (Joecy)*, *5*(2), 11567–11575. https://doi.org/10.31004/joecy.v5i2.1830

Flemming, K., & Noyes, J. (2021). Qualitative Evidence Synthesis: Where Are We at? *International Journal of Qualitative Methods*, *20*. https://doi.org/10.1177/1609406921993276

Friedman, J. (2022). How a New Learning Theory Can Benefit Transformative Learning Research: Empirical Hypotheses. *Frontiers in Education*, *7*. https://doi.org/10.3389/feduc.2022.857091

Gusenbauer, M., & Gauster, S. P. (2025). How to search for literature in systematic reviews and meta-analyses: A comprehensive step-by-step guide. *Technological Forecasting and Social Change*, *212*, 123833. https://doi.org/10.1016/j.techfore.2024.123833

Hamdi, I., & Desvia, L. (2025). Effectiveness of the Talaqqi Method in Memorizing the Quran. *Journal of Theory and Research Memorization Quran*, *1*(1), 15–25. https://joesmiq.intischolar.id/index.php/joesmiq/index

Hamidah, K., & Chasannudin, A. (2021). Mechanization of Islamic moderation da'wah in the Nahdlatul Ulama pesantren tradition. In *Jurnal Ilmu Dakwah* (Vol. 41, Issue 1, pp. 15–29). https://doi.org/10.21580/jid.v41.1.7134

Hanif, M., Mukroji, Suwito, H., Mubaroq, A. C., & Dharin, A. (2024). Pesantren Resistance To Indonesia'S National Curriculum To Defend Its Curriculum Model. *Revista de Gestao Social e Ambiental*, *18*(7), 1–32. https://doi.org/10.24857/rgsa.v18n7-049

Hidayah, H., Qushwa, F. G., Munawwaroh, I., Putri, D. F., & Hasanah, R. (2024). Leadership Transformation and Organizational Strengthening in Improving Collaboration and Operational Effectiveness of Islamic Boarding Schools. *Journal of Social Studies and Education*, *1*(2), 126–139. https://doi.org/10.61987/jsse.v1i2.519

Hidayati, A., Sholeh, M., Fitriani, D., Isratulhasanah, P., Marwiyah, S., Rizkia, N. P., Fitria, D., & Sembiring, A. (2024). Analisis Faktor Penyebab Rendahnya Kemampuan Literasi Siswa Sekolah Dasar. *Jurnal Inovasi, Evaluasi Dan Pengembangan Pembelajaran (JIEPP)*, *4*(1), 75–80. https://doi.org/10.54371/jiepp.v4i1.381

Hiebl, M. R. W. (2023). Sample Selection in Systematic Literature Reviews of Management Research. *Organizational Research Methods*, *26*(2), 229–261. https://doi.org/10.1177/1094428120986851

Hosaini, H., Hamzah, H., Efendi, M. Y., Simbolon, N. Y., & Sutiapermana, A. (2024). Tawheed-Based Pedagogy: Empowering Islamic Education Through Community Engagement And Pesantren Tradition. *Journal Of Human And Education (JAHE)*, *4*(4), 844–852. https://doi.org/10.31004/jh.v4i4.1110

Khanom, J., Mohamad Ali, & Elias Ahmed. (2025). Advancing Islamic Education: Values-Driven Strategic Leadership in School Culture of the Digital Era. *Solo Universal Journal of Islamic Education and Multiculturalism*, *3*(01), 155–168. https://doi.org/10.61455/sujiem.v3i01.378

Komor, M., & Grzyb, K. (2023). Qualitative Content Analysis – A Research Method in Social Science. *Przegląd Badań Edukacyjnych*, *2*(43), 143–163. https://doi.org/10.12775/pbe.2023.032

Kumar, A. (2023). Systematic Literature Review (SLR). In *Meta-analysis in Clinical Research: Principles and Procedures* (pp. 7–14). Springer. https://doi.org/10.1007/978-981-99-2370-0_2

Kusumawati, I., & Nurfuadi. (2024). Integrasi Kurikulum Pesantren Dalam

Kurikulum Nasional Pada Pondok Pesantren Modern. *Sanskara Pendidikan Dan Pengajaran*, *2*(01), 1–7. https://doi.org/10.58812/spp.v2i01.293

Lindgren, B. M., Lundman, B., & Graneheim, U. H. (2020). Abstraction and interpretation during the qualitative content analysis process. *International Journal of Nursing Studies*, *108*(3), 103632. https://doi.org/10.1016/j.ijnurstu.2020.103632

Lyhne, C. N., Thisted, J., & Bjerrum, M. (2025). Qualitative content analysis–framing the analytical process of inductive content analysis to develop a sound study design. *Quality and Quantity*, *59*, 5329–5349. https://doi.org/10.1007/s11135-025-02220-9

Madden, R. (2020). Dialogue in community: conditions and enablers for teacher professional development in Catholic schools. *Journal of Religious Education*, *68*(2), 125–139. https://doi.org/10.1007/s40839-020-00104-8

Maulida, S. (2022). A Sentiment Analysis on Pesantren Entrepreneurship. *The Economic Review of Pesantren*, *1*(1). https://doi.org/10.58968/erp.v1i1.197

Muka, T., Glisic, M., Milic, J., Verhoog, S., Bohlius, J., Bramer, W., Chowdhury, R., & Franco, O. H. (2020). A 24-step guide on how to design, conduct, and successfully publish a systematic review and meta-analysis in medical research. *European Journal of Epidemiology*, *35*(1), 49–60. https://doi.org/10.1007/s10654-019-00576-5

Nargiza, N., Zhao, W., & Fazal, K. (2023). Investigating the Practicality of Implementing Structural Functionalism Theory in the Teaching Practices of Basic Education Teachers in Tashkent, Uzbekistan. *Open Journal of Social Sciences*, *11*(04), 271–283. https://doi.org/10.4236/jss.2023.114020

Nasukah, B., & Winarti, E. (2021). Teori Transformasi dan Implikasinya pada Pengelolaan Lembaga Pendidikan Islam. *Southeast Asian Journal of Islamic Education Management*, *2*(2), 177–190. https://doi.org/10.21154/sajiem.v2i2.43

Neumann, A. P., & Suen, G. (2018). The phylogenomic diversity of herbivore-associated Fibrobacter spp. is correlated to lignocellulose-degrading potential. *Informing Science*, *3*(6), 77–87. https://doi.org/10.28945/4551

Ni'am, S., & Arafah, N. N. (2024). Transformasi Sistem Pendidikan Formal Pesantren. *DIMAR: Jurnal Pendidikan Islam*, *6*(1), 69–84. https://doi.org/10.58577/dimar.v6i1.271

Nurmahmudah, N. (2023). Renewal And Modernization of The Salaf Pesantren Education System in The Perspective of The Philosophy of Religious Studies. *Fenomena*, *22*(1), 35–52. https://doi.org/10.35719/fenomena.v22i1.141

Okenova, B., Xu, W., & Adel, S. (2025). The Practice of Moderate Education to Prevent Interreligious Conflict. *Muaddib: Journal of Islamic Teaching and Learning*, *1*(2), 36–54. https://muaddib.intischolar.id/index.php/muaddib/article/view/8

Oktaria, A., Khoirul, K., Fitriyenni, S., Paiman, P., & Irfan, M. (2023). Peran Pesantren dalam Era Digital. *Scaffolding: Jurnal Pendidikan Islam Dan Multikulturalisme*, *4*(3), 432–444. https://doi.org/10.37680/scaffolding.v4i3.2108

Oktavia, G., Ramadhany, N. F., Sabrina, V., & Sameto, M. B. (2020). Six Motivations of Housewives Following the Tahsin Alquran. *International Journal of Multidisciplinary Research of Higher Education*, *3*(2), 73–81. https://doi.org/10.24036/ijmurhica.v3i2.190

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., … Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *Bmj*, *372*.

https://doi.org/10.1136/bmj.n71

Parlan, H. P., Andriyani, & Lusida, N. (2024). Problematika Pesantren dan Lembaga Pendidikan Islam. *Reslaj: Religion Education Social Laa Roiba Journal*, *6*(11), 1–10. https://doi.org/10.47467/reslaj.v6i11.3691

Ps, V., Chakraborty, A., & Kar, A. K. (2024). How to Undertake an Impactful Literature Review: Understanding Review Approaches and Guidelines for High-impact Systematic Literature Reviews. *South Asian Journal of Business and Management Cases*, *13*(1), 18–35. https://doi.org/10.1177/22779779241227654

Putri, C. T., Oktavia, G., Syafura, T., Lainah, L., & Rahawarin, Y. (2021). Teacher's Strategy in Improving Students' Ability to Memorize the Qur'an. *International Journal of Multidisciplinary Research of Higher Education*, *4*(3), 94–103. https://doi.org/10.24036/ijmurhica.v4i3.106

Ramadhan, A., Mubarak, H., Iqna Syam, M., Hanafiah, H., & Muchtarom, M. (2024). Pergeseran Paradigma Pesantren dan Tantangan Pengembangan Kultur Pesantren di Era Globalisasi. *Wali Pikir: Journal of Education*, *1*(3), 173–182. https://doi.org/10.62555/wp.v1i3.0021

Rochim, E. Z., Ikhwan, A., Arifin, S., & Rahajeng, C. T. (2025). Integration of Islamic Boarding School Curriculum Based on Islamic Values and Technology in Indonesia. *Nidhomul Haq : Jurnal Manajemen Pendidikan Islam*, *10*(3), 602–616. https://doi.org/10.31538/ndhq.v10i3.216

Rohman, A., & Muhid, A. (2022). Character Education of Islamic Boarding School Students in the 4.0 Industrial Revolution Era : Literature Review. *Halaqa: Islamic Education Journal*, *6*(1), 59–65. https://doi.org/10.21070/halaqa.v6i1.1591

Rojo, J., Ramjan, L., George, A., Hunt, L., Heaton, L., Kaur, A., & Salamonson, Y. (2023). Applying Mezirow's Transformative Learning Theory into nursing and health professional education programs: A scoping review. *Teaching and Learning in Nursing*, *18*(1), 63–71. https://doi.org/10.1016/j.teln.2022.09.013

Sauer, P. C., & Seuring, S. (2023). How to conduct systematic literature reviews in management research: a guide in 6 steps and 14 decisions. *Review of Managerial Science*, *17*(5), 1899–1933. https://doi.org/10.1007/s11846-023-00668-3

Sheikh, J. A. (2020). Educational Dualism in the Muslim World and the Way Forward: A Comparative Study of Educational Thought of Mawlana Madoodi and Badiuzzaman Said Nursi. *Journal of South Asian Studies*, *8*(2), 47–55. https://doi.org/10.33687/jsas.008.02.3277

Sholeh, M., Komalasari, K., & Wiyanarti, E. (2025). Pesantren as Best Practice for Sustainable Education to Addressing Global Challenges. *Conference/Book Title (Isi Jika Diperlukan*, 600–610. https://doi.org/10.2991/978-2-38476-317-7_61

Sofi, M. J., Manaf, S., & Ali, J. (2025). Pesantren In Dynamic Transformation: Harmonizing Classical Roots and Modern Practices. *MIQOT: Jurnal Ilmu-Ilmu Keislaman*, *49*(2), 333. https://doi.org/10.30821/miqot.v49i2.1459

Solihin, S., & Bukhori, B. (2022). The Urgency of Religious Institutions in the Middle of the Localization Complex in Bandung. *Hanifiya: Jurnal Studi Agama-Agama*, *5*(1), 1–10. https://doi.org/10.15575/hanifiya.v5i1.13812

Spanuth, A., & Urbano, D. (2024). Exploring social enterprise legitimacy within ecosystems from an institutional approach: A systematic literature review and research agenda. *International Journal of Management Reviews*, *26*(2), 211–231. https://doi.org/10.1111/ijmr.12349

Steffen, V., de Oliveira, M. S., Brusamarello, C. Z., & Trojan, F. (2024). A new Normalized Index for Ranking Papers in Systematic Literature Reviews. *Decision Analytics Journal*, *10*, 100439. https://doi.org/10.1016/j.dajour.2024.100439

Sukino, Saumi Setyaningrum, Imron Muttaqin, & Triyo Supriyatno. (2023). Islamic

Educational Institutions and Social Change in Rural Communities. *Journal of Namibian Studies : History Politics Culture*, *34*. https://doi.org/10.59670/jns.v34i.1565

Supriyono, S. (2022). Pesantren, the COVID-19 Pandemic and Digital Transformation: A Global Development Perspective. *Muslim Education Review*, *1*(1), 37–58. https://doi.org/10.56529/mer.v1i1.10

Surip, S., Masyitoh, M., & Bahar, H. (2024). Management Of Pondok Pesantren Modern Perspective Of Amin Abdullah's Interconnected Entities Theory In Pondok Pesantren Modern Al-Amanah Al-Gontory. *Edunity Kajian Ilmu Sosial Dan Pendidikan*, *3*(6), 362–376. https://doi.org/10.57096/edunity.v3i6.260

Suryani, S., Yusrawati, Y., & Andini, N. (2024). Pelatihan Pengembangan Jiwa Entrepreneurship Santri Untuk Menghadapi Era Society 5.0 Melalui Motivasi Kewirausahaan Pada Pondok Pesantren Modern Nurul Hidayah Kabupaten Bengkalis. *SWARNA: Jurnal Pengabdian Kepada Masyarakat*, *3*(1), 68–74. https://doi.org/10.55681/swarna.v3i1.1149

Syah, R. F., Yunus, M., & Herwati, H. (2025). Qur'anic Learning Management in Pesantren: Navigating the Tension Between Tradition and Innovation. *Journal of Educational Management Research*, *4*(5), 1874–1884. https://doi.org/10.61987/jemr.v4i5.1194

Ummah, A. K., Kakoh, N. A., Mahmudi, M. B., Wardani, A. Z., & Ummah, A. K. (2025). Efforts of Dormitory Supervisors in Overcoming Problems in the Quran Memorization Dormitory. *Journal of Theory and Research Memorization Quran*, *1*(1), 1–14. https://joesmiq.intischolar.id/index.php/joesmiq/article/view/52

Usman, M., Ali, N. Bin, & Wohlin, C. (2023). A Quality Assessment Instrument for Systematic Literature Reviews in Software Engineering. *E-Informatica Software Engineering Journal*, *17*(1), 230105. https://doi.org/10.37190/e-Inf230105

Vears, D. F., & Gillam, L. (2022). Inductive content analysis: A guide for beginning qualitative researchers. *Focus on Health Professional Education: A Multi-Professional Journal*, *23*(1), 111–127. https://doi.org/10.11157/fohpe.v23i1.544

Vivek, R., Nanthagopan, Y., & Piriyatharshan, S. (2023). Beyond Methods: Theoretical Underpinnings of Triangulation in Qualitative and Multi-Method Studies". *SEEU Review*, *18*(2), 105–122. https://doi.org/10.2478/seeur-2023-0088

Widodo, Y. B., Sibuea, S., & Narji, M. (2024). Kecerdasan Buatan dalam Pendidikan: Meningkatkan Pembelajaran Personalisasi. *Jurnal Teknologi Informatika Dan Komputer*, *10*(2). https://doi.org/10.37012/jtik.v10i2.2324

Yuningsih, Y. R., Abubakar, I., & Rahman, F. M. (2023). Pesantren and the Kitab Kuning: Pesantren Dynamics and Its Influence on the Kitab Kuning Traditions in Sukabumi. *Buletin Al-Turas*, *29*(2), 199–212. https://doi.org/10.15408/bat.v29i2.30897

Yusuf, Y. S., & Ali, N. (2025). Strategi Pembelajaran Integratif di Pesantren Dengan Menggabungkan Tradisi dan Modernitas. In *Journal of Islamic Education Studies* (Vol. 3, Issue 2, pp. 173–180). https://doi.org/10.58569/jies.v3i2.1164

Zahirah, S. Y., & Suhaedi, W. (2025). Optimizing financial management and reporting to increase accountability and transparency in Islamic boarding schools. *Journal of Islamic Economics Lariba*, *11*(1), 25–44. https://doi.org/10.20885/jielariba.vol11.iss1.art2