



# Strategic Integration of Islamic Boarding School Curriculum and Digital Learning for Enhancing The Quality of Islamic Education

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## Abstract:

This study aims to map strategies for integrating Islamic boarding school (pesantren) curricula with the implementation of digital learning in enhancing the quality of Islamic education in the Society 5.0 era. Employing a Systematic Literature Review (SLR) method guided by the PRISMA framework, this study analyzes 27 scholarly articles indexed in SINTA and Scopus published between 2020 and 2026. The findings of the literature synthesis reveal that the integration strategy is implemented through a subject-based curriculum model that aligns kitab kuning (classical Islamic texts) with digital competency standards without compromising the distinctive identity of pesantren. The digital ecosystem is developed through the adoption of smart classrooms, digital edutainment, and adaptive instructional leadership. Despite challenges such as infrastructure disparities and cultural resistance, managerial solutions through the boarding school model and digitally based academic supervision have proven effective in mitigating these risks. This study concludes that the transformation of the quality of Islamic education depends on the institutional capacity to balance spiritual traditions with globally competitive 21st-century skills.

## INTRODUCTION

The global education landscape is currently at the epicenter of digital transformation driven by the acceleration of the Society 5.0 era, where technological integration is no longer merely an option but an existential necessity for educational institutions (Yahya, 2025). The essence of this transformation lies in the extent to which educational management can systematically respond to the dynamics of global change in order to ensure the quality of educational outcomes (Mustiningsih et al., 2024). For Islamic educational institutions, this phenomenon presents a dual challenge: preserving the authenticity of religious traditions while simultaneously adopting complex

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21st-century digital competencies (Drake & Reid, 2020). The inability of institutions to respond to this disruption often perpetuates the classical dichotomy between religious knowledge (tafaqquh fiddin) and modern science, which ultimately leads to the stagnation of graduate quality amid global competition (Purwanto, 2023; Suradji & Farid, 2025).

Indonesia, as a country that positions pesantren as educational institutions with strong socio-cultural roots, holds significant potential as a pillar of transformation through curriculum integration policies. However, analyses of various studies indicate that the synchronization between pesantren curricula based on kitab kuning (classical Islamic texts) and national digital competency standards often remains partial and has not been optimally managed (M. Islam, 2021). An ideal integration strategy should be capable of eliminating disciplinary boundaries so that prophetic values can be internalized within digital literacy and pesantren-based competencies (Syafi'i et al., 2025). Without coherent integration, Islamic education will continue to face challenges of relevance in the eyes of modern society, which is increasingly oriented toward technological advancement.

Empirical conditions reveal that the barriers to digitalization in Islamic educational institutions, particularly pesantren, are not solely ideological but also stem from significant structural constraints. Evidence indicates a substantial digital divide, characterized by uneven information technology infrastructure and low levels of digital literacy among educators (Suresman et al., 2025). In addition, limited funding and the absence of standardized operational frameworks for integrating traditional learning methodologies with digital platforms have resulted in many transformation initiatives being confined to the procurement of hardware, without addressing the substantive aspects of curriculum development (Purwanto, 2023). The lack of managerial readiness in handling this transformation creates a gap between national digitalization policies and their actual implementation in Islamic educational institutions. Therefore, this study is crucial in providing managerial solutions that bridge these technical barriers with the need for an adaptive curriculum.

The transformation of the quality of Islamic education heavily depends on the willingness of institutional leaders to adopt innovative learning strategies, such as digital edutainment and disciplined boarding school-based student management (Yupande et al., 2025). Furthermore, a transparent and data-driven curriculum evaluation system serves as a critical instrument in ensuring institutional accountability (Julaen et al., 2024). Equally important is transformational leadership that is capable of integrating total quality management with the local wisdom of pesantren in order to build a strong institutional brand image that is competitive in the era of educational commercialization (Adzhar et al., 2025; Purwanto, 2023).

Although the discourse on Islamic education has been widely explored, there remains a research gap concerning a comprehensive synthesis that connects traditional curriculum integration with digital learning ecosystems within a unified quality management framework. Much of the existing literature remains fragmented and focused on single-case studies. Therefore, this study aims to fill this gap by systematically mapping the management of pesantren curriculum integration with the implementation of digital learning through a

Systematic Literature Review (SLR) approach, analyzing recent literature up to 2026.

The in-depth analytical approach of this study seeks to address how such integration models contribute to the development of the quality of Islamic education and which strategies are most effective in mitigating digitalization challenges in pesantren. The findings of this review are expected to provide a solid theoretical foundation as well as practical recommendations for policymakers in realizing an integrative, adaptive, and globally competitive vision of Islamic education.

## RESEARCH METHOD

The research design of this study employs a Systematic Literature Review (SLR) based on the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. This approach is utilized to systematically identify, evaluate, and synthesize findings from previous studies in order to provide a comprehensive understanding of strategies for integrating pesantren curricula and implementing digital learning to enhance the quality of Islamic education in the era of digital transformation. The literature search process was conducted intensively using Publish or Perish and SINTA Kemdikbud, retrieving data from Google Scholar and Crossref databases. The search keywords included “integration of pesantren curriculum,” “digital learning in Islamic education,” “quality of Islamic education,” and “digital curriculum management in pesantren.” The publication period was limited to 2020–2026 to ensure relevance to post-pandemic educational dynamics and the Society 5.0 era.

The literature reviewed was limited to articles published in Indonesian or English, appearing in accredited national journals (SINTA) or reputable international journals (Scopus-indexed) within the period of 2020–2026, addressing themes related to curriculum integration, digital transformation in pesantren, or quality management in Islamic education, and consisting of empirical studies (qualitative or quantitative) or relevant literature reviews. Articles were excluded if they were not relevant to the focus on pesantren curriculum integration and digital technology, full-text versions were unavailable, not indexed in Scopus or SINTA, or duplicated from other sources. Based on the initial search process, a number of articles were identified and subsequently screened following the PRISMA flow. Of the 158 articles found in the initial stage, 64 were removed due to irrelevance in titles and abstracts after the initial screening, 51 were excluded for not meeting the criteria of reputable journals or due to the unavailability of full-text access, and 16 were removed due to duplication, overlapping discussions, or publication outside the 2020–2026 range. After the entire selection process, 27 articles met all inclusion criteria and were included for in depth analysis. This selection process is visualized through a PRISMA flowchart (Figure 1).

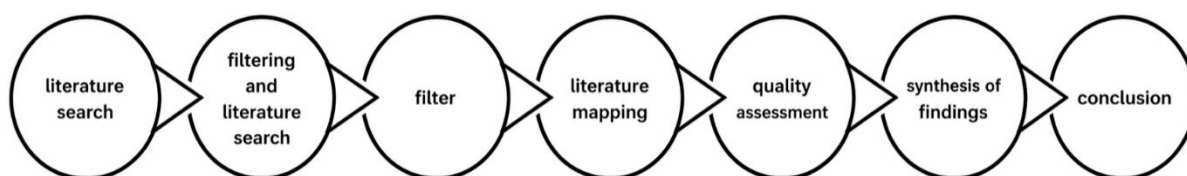


Figure 1. Prisma Flowchart

Data analysis was carried out with a thematic approach to identify the main trends, challenges and strategies for digital curriculum integration in Islamic educational institutions in the face of the Society 5.0 era. The analysis steps include 1) Thematic Categorization: grouping themes based on the categories that appeared in the 27 articles analyzed. This process allows researchers to find patterns that emerge from various perspectives, such as curriculum management strategies and models, the use of technology ecosystems (*smart classrooms*) to aspects of digital ethics in Islamic boarding schools (Shaheen et al., 2023). 2) Interpretive Systematics: reading and interpreting literature data in depth to identify the knowledge gap (*research gap*) that exists in the field of Islamic education management, especially regarding the synchronization of the yellow book-based curriculum with national digital competency standards (Page et al., 2020). 3) Comparison Between Articles: comparing the findings of various articles to identify patterns of success and differences in the implementation of digitalization policies in various Islamic educational institutions.

The results of the analysis were then synthesized to identify patterns, successes and research gaps related to the integration of the traditional pesantren curriculum with digital learning. This synthesis is the basis for formulating strategic recommendations for managers of Islamic educational institutions to develop a curriculum model that is adaptive, innovative and globally competitive without losing the identity of Islamic values.

## RESULTS AND DISCUSSION

### RESULTS

After going through a predetermined selection process, this study, using the SLR approach, successfully identified 27 articles for further in-depth analysis. The following is a summary of the analysis results regarding the strategy of integrating Islamic boarding school curriculum with digital learning in improving the quality of Islamic boarding school education.

Table 1. Analysis of Findings from Articles Related to the Integration Strategy of the Islamic Boarding School Curriculum with Digital Learning

No.	Author & Year	Result
1	Yahya (2025)	Explain comprehensively the transformation strategy of pesantren as the main pillar of Islamic education in the era of Society 5.0. The research findings emphasize that pesantren are now adopting a curriculum integration policy that harmonizes the Islamic intellectual tradition (yellow book) with high-level technological literacy. The implication is that graduates not only master religious interpretations in depth but also have globally competitive digital capabilities.
2	Hidayat & Arifi (2025)	The use of big data analysis allows institutions to design a more flexible and adaptive curriculum. The specific findings highlight that digital

		platforms on campus are now a vital space for the internalization of the value of religious moderation to fortify Generation Z from digital radicalism.
3	Suresman et al. (2025)	Through the <i>Systematic Literature Network Analysis</i> (SLNA) method, this study documents the dramatic evolution of the pesantren learning model from the <i>traditional sorogan</i> method to the <i>smart classroom ecosystem</i> . The results of the study show that this digital transformation accelerates the process of searching for references (digitization of maktabah) without reducing the value of exemplary and spiritual interaction between kyai and students which has been the core of Islamic education.
4	Martinez (2022)	The application of project-based curriculum is effective in developing 21st century teaching skills, such as collaboration, critical thinking, and creativity. This model encourages more active and contextual learning and increases student engagement. In the context of integrating the pesantren curriculum with digital learning, these findings affirm the importance of using a project-based approach to optimize the use of technology while improving the quality of Islamic religious education in a more applicative and competency-oriented manner.
5	Yupande et al. (2025)	The use of Islamic animated videos and interactive quizzes significantly increases the affective involvement of students. This study concludes that the <i>edutainment approach</i> is able to break the freeze of traditional lecture methods, so that complex PAI materials become easier to understand and increase the learning happiness index of students.
6	Suradji & Farid (2025)	The transformation of pesantren education in the digital era not only has an impact on the technical aspects of learning, but also affects the relationship between students and students, scientific authorities, and the depth of internalization of Qur'anic values. Digitalization provides opportunities in the form of expanding access to knowledge and increasing learning effectiveness, but also poses a risk of spiritual degradation and value shifts due to the influence of digital culture.
7	Syafi'i et al. (2025)	Character-Based Skills are the unique selling point of graduates. Students are trained to have technical skills (such as robotics or multimedia) but are carried out with Islamic work ethics. Synchronization of the schedule between workshop practice and yellow book study is the key to the success of forming a competent and religious graduate profile.
8	Saleh (2025)	The function of academic supervision by madrasah supervisors must be transformed into digital-based managerial assistance. In addition, tech-savvy supervisors are able to provide more precise instructional feedback, assist madrasah heads in data-driven policy-making, and ensure that quality standards are maintained even when the institution is making radical curriculum changes.
9	Tuala & Nurdin (2025)	Systematic supervision of dormitories is able to mitigate the negative risks of globalization, such as moral degradation and addiction to digital entertainment. The dormitory system integrated with the school's curriculum creates a 24-hour learning environment that is disciplined, religious, and oriented towards continuous academic achievement.
10	Adzhar et al. (2025)	Public trust today is no longer driven by mere visual promotion, but by the competitive advantage of graduates who are proven to be morally and professionally superior in society. The integration of Islamic values in all aspects of service is the main differentiator of Islamic educational institutions in winning global competition.

11	Paais & Sabirin (2025)	<i>Project-Based Learning (PjBL)</i> training for teachers has proven to be effective based on the Kirkpatrick evaluation model, especially in the aspects of participant response and knowledge improvement. In the context of integrating the pesantren curriculum with digital learning, these findings confirm that improving teachers' pedagogic competence through structured training is a key factor in implementing innovative learning and improving the quality of Islamic religious education.
12	Aspiyah (2024)	The character of the students (such as reverence for the teacher and independence) increases rapidly when the values of the pesantren are inserted directly into the general subjects. This proves that character does not have to be taught as a separate lesson, but through the internalization of values across disciplines.
13	Ishaac & Nida (2024)	The curriculum based on prophetic values (Humanization, Liberation, Transcendence) is very effective in forming a moderate and inclusive mindset for students. This finding positions pesantren as the forefront in maintaining social harmony in the midst of the plurality of Indonesian society.
14	Julaen et al. (2024)	Institutions that apply formative and summative evaluations in a balanced manner are able to identify barriers to early learning. This research recommends the use of evaluation instruments that not only measure the cognitive domain, but also measure the development of spirituality and social behavior of students periodically.
15	Purwanto (2023)	The digital <i>divide</i> in rural areas is the main obstacle in improving the quality of PAI nationally. Therefore, the effectiveness of transformation 4.0 is highly dependent on government intervention in providing cheap internet access and equitable digital devices. Without infrastructure support, the integration of digital curricula will only benefit institutions in cities.
16	Trihariyanto et al. (2023)	Visualization of complex religious concepts (such as Islamic astronomy/Falak or Islamic history) significantly improves students' understanding. The results show that interactive digital media is able to reduce boredom levels and increase students' memory retention of religious subject matter.
17	Ahmad et al. (2023)	Integrative study schedule coordination is very necessary so that students do not experience academic fatigue ( <i>burnout</i> ). The research suggests the use of a single learning roadmap that combines national competency standards with pesantren competency standards in a single evaluation framework.
18	Gabriel et al. (2022)	The determining factor for the success of digitalization is not only the availability of technology, but also the ability to <i>self-directed learning</i> and digital literacy of educators. The study recommends a paradigm shift from teacher-based teaching to teaching that empowers students through intelligent digital information navigation.
19	Barreto et al. (2022)	The integration of cooperative learning strategies in online settings (such as the use of <i>breakout rooms</i> and digital collaboration boards) is very effective in overcoming students' sense of social isolation. The results of the study prove that well-designed social interactions in digital platforms can increase motivation and learning achievement on an equal footing with offline classes.
20	Handayani & Achadi (2022)	Curriculum integration can be done through the unification of formal, informal, and non-formal education in one integrated system. The implications of this integration can be seen in three main aspects, namely structured learning planning, the implementation of learning that accommodates 21st century skills and religious values, and evaluation that balances the cognitive, affective, and psychomotor domains.
21	Faizah et al (2026)	The development of the PAI curriculum in Islamic boarding schools requires alignment between curriculum design, teacher competence, and

		learning evaluation systems. An effective curriculum is supported by teachers' ability to implement adaptive learning and continuous evaluation. On the other hand, improving the quality of Islamic religious education in Islamic boarding schools depends on the synergy between contextual curriculum planning, teacher professionalism, and innovation in the learning evaluation process.
22	Masyuri et al. (2021)	The implementation of the pesantren curriculum in formal madrassas (through the yellow book) increases the depth of students' religious understanding exponentially. This integration gives the madrasah a strong intellectual identity, which sets it apart from other public schools, making it a special attraction for parents of students.
23	Islam (2021)	The integration of the pesantren curriculum into madrasas is still not optimal and tends to be partial, so systematic management is needed through the planning, organizing, implementation, and evaluation stages. However, on the other hand, the integration of the pesantren curriculum is able to improve the understanding of religious materials more deeply and revitalize the learning of classical books which are starting to be less in demand.
24	Rindi Ani (2025)	The management of the Islamic education curriculum in the digital era requires the integration of planned learning technology through management functions such as planning, implementation, and evaluation. The success of integration is determined by the readiness of the institution, the digital competence of teachers, and the support of systems and policies.
25	Drake & Reid (2020)	The cross-disciplinary approach helps students develop high-level thinking skills ( <i>HOTS</i> ) and creativity. Curriculum integration facilitates students to see the interconnectedness between different phenomena, so they are better prepared to deal with complex real-world problems.
26	Zou et al. (2025)	21st-century digital learning is thriving through the integration of innovative technologies, but it still faces challenges in teacher readiness, access gaps, and curriculum adaptation. Therefore, an integration strategy is needed that focuses not only on technology, but also on strengthening pedagogy, curriculum flexibility, and 21st-century competency development.
27	Fernandez & Garrido (2022)	The integration of digital technology in the curriculum requires systematic planning, improving teachers' digital competence, and adequate infrastructure and policy support. In the context of the development of the pesantren curriculum, this finding emphasizes that the integration of digital learning is not enough only in the use of media, but must be directed to a more active, collaborative, and student-centered learning transformation to improve the quality of Islamic religious education

The table 1 summarizes the key findings from the literature reviewed and serves as the foundation for this study's analysis. It presents the main contributions of each article regarding the integration of the pesantren curriculum with digital learning, highlighting trends, strategies, and challenges identified across studies. This overview provides a structured basis for the subsequent discussion, allowing for a comprehensive synthesis of patterns, gaps, and implications in enhancing the quality of Islamic education in the digital era.

## DISCUSSION

### Strategies and Models of Curriculum Integration in Islamic Education

Curriculum integration in Islamic educational institutions has emerged as a strategic response to the challenge of educational dualism, which separates religious knowledge from general sciences. Based on the synthesis of the literature, a fundamental step in this integration is the deconstruction of the knowledge dichotomy rooted in the legacy of colonialism (Ahmad et al., 2023). This effort is not merely administrative but also transformative, as traditional pesantren values are increasingly integrated with digital ecosystems to address the needs of Society 5.0 (Suresman et al., 2025).

Practically, this integration strategy is widely implemented through a subject-based curriculum model. In this model, distinctive pesantren subjects such as kitab kuning (classical Islamic texts) and Nahwu Shorof (Arabic grammar) are systematically incorporated into the formal curriculum structure without reducing the national curriculum content (Aspiyah, 2024; Masyuri et al., 2021). The success of this model is highly dependent on strong integration management, where the pesantren curriculum functions not merely as a supplement but as a unique identity that strengthens the overall quality of madrasah education (Islam, 2021).

The success of integration also relies heavily on a well-structured synchronization process between the national curriculum and pesantren values. This synchronization is carried out comprehensively, starting from the planning stage, the determination of learning strategies, to the development of measurable evaluation systems (Ahmad et al., 2023). In the context of boarding school-based institutions, this strategy also includes strengthening organizational content (such as Muhammadiyah values) aligned with national standards to shape students who are both religious and independent (Handayani & Achadi, 2022).

Effective management of this integration has been shown to significantly enhance the competencies of both students and educators in mastering religious knowledge without lagging behind in academic aspects (Islam, 2021). This integration model also demonstrates flexibility in curriculum organization, where learning activities are not limited to formal school hours but are reinforced through afternoon tutorials and dormitory-based programs that complement each other, particularly in strengthening language competencies (Faizah et al., 2026). Therefore, findings from various studies confirm that curriculum integration strategies in Indonesia have shifted from merely combining content into a holistic educational management model that unifies the spiritual depth of pesantren with national academic excellence.

### Digital Ecosystem and Technological Transformation in Islamic Educational Institutions

Digital transformation in Islamic educational institutions is no longer merely a technical option but a strategic necessity to respond to the challenges of the Society 5.0 era. Based on the latest literature review, the integration of digital technology into Islamic curricula, particularly in pesantren and higher education institutions, serves as a key pillar of transformation that enables traditional values to remain relevant in the face of contemporary demands (Yahya, 2025).

The effectiveness of technology implementation in educational institutions

is strongly influenced by digital instructional leadership, which is capable of driving innovation in an adaptive and flexible manner (Nurabadi et al., 2022). In addition to leadership factors, active parental involvement in supporting a value-based religious education ecosystem also plays a determining role in the quality of education in the digital transformation era (Sumarsono et al., 2025).

At the global level, the integration of digital technology into curricula must be understood as an organic process embedded within instructional design, rather than merely an auxiliary tool, in order to ensure the sustainability of effective instructional processes (Fernández-Sánchez, 2022). In Indonesia, digitalization policies have been implemented through the use of e-learning platforms and data analytics, which not only enhance learning flexibility but also effectively internalize religious moderation values through inclusive online discussion spaces (Hidayat & Arifi, 2025).

This transformation is further strengthened by the adoption of digital edutainment methods, such as Islamic animation videos and interactive quizzes, which have been proven to significantly enhance students' motivation and engagement compared to conventional methods (Yupande et al., 2025). The utilization of more complex digital ecosystems, including Smartclass LMS, Digital Qur'an Mora, and web-based tafsir applications, demonstrates that Islamic Religious Education (PAI) curriculum management has evolved into an integrated system that facilitates access to credible learning resources (Ani et al., 2025). In addition, the use of innovative media such as systematically and creatively designed PowerPoint presentations has become a crucial strategy for improving the quality of Islamic Religious Education, making abstract materials more concrete and engaging for learners (Trihariyanto et al., 2023).

The success of building this digital ecosystem heavily depends on digital literacy and self-directed learning capabilities, which are core components of educational technology master plans in various countries (Gabriel et al., 2022). Furthermore, synergy and collaboration in digital leadership also serve as key pillars in improving teacher performance, which ultimately strengthens students' competencies in the 21st century. In the context of Islamic education, digitalization presents both significant opportunities and challenges in the transmission of Qur'anic values, where technology functions as a medium for value internalization that must be carefully managed to preserve the spiritual essence of pesantren (Suradji & Farid, 2025).

The main ongoing challenges include the digital infrastructure gap—particularly limited internet access in rural areas—and cultural resistance to digital change within academic environments (Hidayat & Arifi, 2025). Therefore, innovation in 21st-century technological integration requires synchronization between infrastructure development and educators' pedagogical readiness in designing digital-based learning strategies, ranging from instructional planning to comprehensive digital evaluation, in order to bridge both technical and cultural barriers (Ani et al., 2025; Trihariyanto et al., 2023; Zou et al., 2025).

Overall, the synthesis of various studies indicates that the future of Islamic education lies in the institutional capacity to balance the preservation of traditional moral identity with the courage to pursue adaptive and competitive technological transformation.

## Challenges, Barriers, and Solutions in the Implementation of Educational Policy

The implementation of curriculum integration and digitalization policies in Islamic educational institutions faces multidimensional challenges encompassing technical, cultural, and managerial aspects. The primary obstacle is the digital infrastructure gap, particularly uneven access to the internet and limited availability of digital devices, which directly hampers the quality of Islamic Religious Education (PAI) in the digital era (Purwanto, 2023). This situation is further exacerbated by empirical conditions in which many pesantren are not yet fully prepared for educational digitalization due to limited supporting facilities and high operational costs (Suresman et al., 2025).

In addition to physical constraints, cultural and psychological resistance also constitutes a significant barrier. In online learning environments, students often experience social isolation due to the lack of physical presence, which, if not properly managed, can reduce engagement and learning motivation (Barreto et al., 2022). Furthermore, the unpreparedness of human resources in adopting digital literacy as a comprehensive framework also presents a challenge, where technology is often perceived merely as a static instructional tool rather than a means of fostering critical thinking and problem-solving skills (Fernández-Sánchez et al., 2022).

In response to these challenges, managerial roles and transformational leadership emerge as key solutions. Effective student development management through the boarding school model has been proven to minimize behavioral constraints by creating a disciplined and religious environment, thereby enhancing the effectiveness and academic performance of madrasah institutions (Tuala & Nurdin, 2025). Externally, the role of school supervisors is crucial in providing academic and managerial supervision to ensure quality standards are maintained during periods of policy transition (Saleh, 2025).

Proposed solution strategies include strengthening digital literacy among educators to address technological resistance, as well as implementing innovative learning strategies based on interactive media such as PowerPoint presentations and educational videos to enhance the attractiveness of religious learning materials (Trihariyanto et al., 2023). In addition, increased collaboration through cooperative learning strategies is necessary to reduce student isolation (Barreto et al., 2022), along with infrastructure improvement based on data-driven systems to support more precise policy implementation (Purwanto, 2023).

Through the synergy of strong leadership, institutional readiness, and inclusive technological adaptation, implementation barriers can be transformed into opportunities for enhancing the competitiveness of Islamic educational institutions.

## Quality of Islamic Educational Institutions and Student Character Development

The improvement of educational quality in Islamic educational institutions represents the manifestation of successful curriculum integration oriented toward holistic character development and future competencies. The synthesis of the literature indicates that educational quality is not only measured by academic achievement but also by the internalization of professional ethics and spiritual

values. At the pesantren level, systematic curriculum development through structured design analysis and measurable learning evaluation becomes a key factor in producing graduates with deep classical knowledge as well as readiness to face contemporary challenges (Faizah et al., 2026). This quality is further strengthened through continuous evaluation strategies that ensure all educational components operate in accordance with established quality assurance standards (Julaen et al., 2024).

The formation of contemporary student character is also focused on strengthening religious moderation and prophetic literacy. The integration of prophetic education within the pesantren curriculum serves as a vital instrument in shaping students who are moderate, inclusive, and capable of maintaining interreligious harmony (Ishaac & Nida, 2024). The implementation of curriculum integration in boarding school-based institutions shows positive implications for enhancing students' religiosity and independence, where the values of Al-Islam and Kemuhammadiyah serve as foundational principles in daily behavior (Handayani & Achadi, 2022).

In addition to moral development, mastery of 21st-century skills—such as critical thinking, collaboration, and creativity—has become a central objective in integrated and project-based curricula. The implementation of Project-Based Learning has been empirically proven to not only improve cognitive understanding but also enhance entrepreneurial competencies through a constructivist approach (Wiyono et al., 2025). This learning model is also effective in developing teaching and learning skills relevant to global demands (Drake & Reid, 2020; Martinez, 2022).

The effectiveness of this transformation is highly dependent on teachers' pedagogical competence, where periodic training in 21st-century skills is an essential prerequisite for improving instructional quality (Paais & Sabirin, 2025; Syafi'i et al., 2025). Teacher competence is also strongly influenced by visionary leadership that acts as a change agent and coach for educators (Mustiningsih et al., 2020).

The combination of character excellence and functional competencies ultimately shapes a competitive graduate profile and strengthens institutional brand image. Branding strategies in Islamic educational institutions are no longer based solely on commercial promotion but are grounded in the demonstration of Islamic values and the competitive excellence of graduates in society (Adzhar et al., 2025).

The integration of skills-based education with pesantren values produces a "character-based skills" model that serves as a unique selling proposition for Islamic schools and universities (Syafi'i et al., 2025). The success of this integration not only produces cognitively competent graduates but also individuals with strong mental and spiritual resilience (Handayani & Achadi, 2022). Thus, the future quality of Islamic educational institutions depends on their ability to harmonize spiritual traditions, professional ethics, and globally recognized 21st-century competencies.

## CONCLUSION

Based on a systematic analysis of relevant literature, it can be concluded that the integration strategy of pesantren curricula with digital learning is an existential necessity for Islamic educational institutions in responding to the disruptions of the Society 5.0 era. Effective integration management is achieved through the deconstruction of the knowledge dichotomy, where prophetic values and pesantren intellectual traditions are organically combined with digital ecosystems.

The main findings of this study indicate that the success of Islamic education quality transformation is driven by three key pillars: (1) an integrative curriculum model that aligns national competency standards with the distinctive characteristics of pesantren; (2) the adoption of innovative technologies based on edutainment and smart classrooms that enhance students' affective engagement; and (3) transformational leadership capable of managing cultural resistance and infrastructural limitations into opportunities for innovation.

The digital divide, which remains a major challenge particularly in remote areas, can be addressed through strengthening educators' digital literacy and implementing boarding school based managerial collaboration, which plays a crucial role in maintaining institutional accountability and brand image. As a recommendation, policymakers are expected to accelerate the provision of equitable technological infrastructure and develop inclusive curriculum integration standards to realize adaptive Islamic education without losing its spiritual essence.

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