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TUAN GURU LEADERSHIP IN THE STRATEGIC PLANNING OF DIGITAL TRANSFORMATION IN ISLAMIC EDUCATION: A QUALITATIVE MULTI-SITE CASE STUDY

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ABSTRAK

Penelitian ini mengkaji perencanaan strategis transformasi digital dalam pendidikan Islam melalui kepemimpinan Tuan Guru di pesantren-pesantren yang berafiliasi dengan Nahdlatul Wathan (NW) dan Nahdlatul Ulama (NU) di Lombok, Indonesia. Penelitian ini membahas tiga isu utama: konstruksi konseptual perencanaan transformasi digital, proses perencanaan strategis yang diimplementasikan oleh Tuan Guru, dan pengembangan model perencanaan strategis untuk transformasi digital dalam pendidikan Islam. Dengan menggunakan pendekatan studi kasus multisitus kualitatif, data dikumpulkan melalui wawancara mendalam dengan 16 informan, observasi partisipan, dan studi dokumentasi 2 pesantren. Data dianalisis menggunakan analisis kualitatif interaktif yang melibatkan kondensasi data, tampilan data, dan penarikan kesimpulan. Temuan menunjukkan bahwa transformasi digital di pesantren tidak hanya diartikan sebagai modernisasi teknologi tetapi sebagai upaya strategis untuk memperkuat pendidikan Islam, melestarikan tradisi pesantren, dan meningkatkan efektivitas dakwah di era digital. Kepemimpinan Tuan Guru memainkan peran sentral dalam melegitimasi transformasi kelembagaan melalui kepemimpinan keagamaan yang visioner, musyawarah kolaboratif, dan inovasi yang adaptif secara budaya. Proses perencanaan strategis mencakup musyawarah kelembagaan, perancangan ulang kurikulum, pengembangan infrastruktur digital, penguatan sumber daya manusia, dan evaluasi berkelanjutan. Lebih lanjut, penelitian ini mengusulkan model konseptual perencanaan strategis untuk transformasi digital yang terdiri dari lima dimensi yang saling terkait: kepemimpinan keagamaan yang visioner, musyawarah strategis kolaboratif, adaptasi digital kontekstual, pembelajaran tradisional-digital terintegrasi, serta evaluasi dan inovasi berkelanjutan.

Keywords:
Digital Transformation, Strategic Planning, Islamic Education, Pesantren, Tuan Guru Leadership, Lombok

ABSTRACTS

This study examines the strategic planning of digital transformation in Islamic education through the leadership of Tuan Gurus in Islamic boarding schools affiliated with Nahdlatul Wathan (NW) and Nahdlatul Ulama (NU) in Lombok, Indonesia. This study addresses three main issues: the construction of the digital transformation planning concept, the strategic planning process implemented by Tuan Gurus, and the strategic planning development model for digital transformation in Islamic education. Using a qualitative multi-site case study approach, data were collected through in-depth interviews with 16 informants, participant observation, and documentation study of two Islamic boarding schools. Data were analyzed using interactive qualitative analysis that included data condensation, data display, and conclusion drawing. The findings indicate that digital transformation in Islamic boarding schools is not only interpreted as technological modernization but as a strategic effort to strengthen Islamic education, preserve Islamic boarding school traditions, and increase the effectiveness of da'wah in the digital era. Tuan Guru leadership plays a central role in legitimizing institutional transformation through visionary religious leadership, collaborative deliberation, and culturally adaptive innovation. The strategic planning process includes institutional deliberation, curriculum redesign, digital infrastructure development, human resource strengthening, and continuous evaluation. Furthermore, this study proposes a conceptual model of strategic planning for digital transformation consisting of five interrelated dimensions: visionary religious leadership, collaborative deliberation strategy, digital contextual adaptation, integrated traditional-digital learning, and continuous evaluation and innovation.

A. INTRODUCTION

The rapid advancement of digital technology has fundamentally transformed the landscape of global education, including Islamic education institutions. Digital transformation is no longer limited to the adoption of technological devices, but encompasses organizational change, curriculum redesign, governance innovation, and the restructuring of educational culture to meet the demands of the digital era. In contemporary educational discourse, digital transformation is increasingly recognized as a strategic necessity for institutions seeking sustainability, competitiveness, and relevance in the twenty-first century (Bond et al., 2018; Selwyn, 2021). Within this context, Islamic boarding schools (*pesantren*) in Indonesia are facing increasing pressure to modernize their educational systems while simultaneously preserving their traditional religious identity and cultural authenticity.

Pesantren have historically functioned as indigenous Islamic educational institutions characterized by the transmission of classical Islamic scholarship (*turāth*), moral formation, and the cultivation of religious authority through the leadership of *Kiai* or *Tuan Guru*. Traditional pedagogical methods such as *sorogan*, *bandongan*, and *halaqah* remain central to the pesantren learning system (Dhofier, 2011). However, the emergence of digital society and the acceleration of technological innovation have encouraged pesantren institutions to adapt educational management, learning systems, and institutional governance to contemporary digital realities. The challenge faced by pesantren is therefore not merely technological adaptation, but the strategic integration

of digital transformation without eroding the epistemological foundations and spiritual values of Islamic education.

In Indonesia, especially in Lombok, the role of *Tuan Guru* is highly influential in shaping the direction of Islamic educational transformation. The *Tuan Guru* is not only regarded as a religious scholar but also as a socio-cultural leader whose authority significantly influences institutional decision-making, curriculum orientation, and community legitimacy. In the context of Nahdlatul Wathan (NW) and Nahdlatul Ulama (NU)-affiliated pesantren in Lombok, leadership by *Tuan Guru* becomes the central determinant in responding to modernization and digital transformation initiatives. Recent developments within NU pesantren demonstrate growing institutional awareness regarding the urgency of digital transformation in pesantren education. NU Online reported that digital transformation in pesantren must be driven internally by santri and pesantren leadership to ensure cultural compatibility and sustainability (NU Online, 2021).

Furthermore, the strategic orientation toward pesantren digitalization has been reinforced institutionally through various initiatives by Rabithah Ma'ahid Islamiyah Nahdlatul Ulama (RMI NU). RMI PBNU identified digital transformation as a strategic agenda involving curriculum reform, digital governance, educational infrastructure, and digital learning management systems for pesantren institutions (NU Online, 2025). These developments indicate that digital transformation within pesantren is increasingly perceived as a strategic organizational process rather than merely technological adoption.

Within Lombok pesantren traditions, several Islamic educational institutions affiliated with NW and NU have begun integrating digital media into their educational practices while maintaining classical Islamic learning traditions. One important example is Ma'had Darul Hikmah Nurul Hakim Lombok Barat, which implements a hybrid educational approach integrating classical Islamic studies with modern digital learning media. Internal curriculum documents indicate that curriculum planning in the institution involves collaborative strategic deliberation among *Tuan Guru*, lecturers, and pesantren administrators in order to align institutional vision, societal needs, and technological development (Nurul Hakim Dissertation Data, 2023). The curriculum emphasizes *fiqh* and *da'wah* specialization while simultaneously encouraging the use of digital learning tools such as multimedia presentations, digital texts, LCD projectors, online discussion forums, and electronic learning resources.

The integration of traditional and digital learning approaches in pesantren also reflects a broader transformation in Islamic educational leadership. Previous research demonstrates that transformational leadership significantly influences organizational readiness for technological integration and digital learning effectiveness (Azhari & Abidin, 2024). In the context of pesantren, leadership effectiveness is deeply connected to moral legitimacy, religious authority, and value-based governance. Research conducted at Ma'had Darul Hikmah found that the *Tuan Guru* exercises transformational leadership through inspirational vision, intellectual stimulation, individualized consideration, and moral motivation in guiding digital adaptation within pesantren education.

Despite growing scholarly attention to digital transformation in education, several significant research gaps remain unresolved. First, most studies on digital transformation focus primarily on formal schools or higher education institutions, while empirical investigations within pesantren contexts remain relatively limited. Second, existing studies tend to examine technology adoption or digital learning implementation separately from leadership and strategic planning dimensions. Third, research concerning Islamic educational leadership frequently emphasizes charismatic or transformational leadership without sufficiently analyzing how *Tuan Guru* strategically construct, formulate, and institutionalize digital transformation planning within pesantren systems. Consequently, there remains limited understanding of how strategic planning processes for digital transformation are conceptualized, implemented, and sustained within Islamic educational institutions grounded in traditional religious authority.

This study therefore seeks to address these gaps by investigating the strategic planning of digital transformation in Islamic education through the perspective of *Tuan Guru* leadership in pesantren affiliated with NW and NU in Lombok. Specifically, this research focuses on three analytical dimensions: (1) the conceptual construction of strategic planning developed by *Tuan Guru* in responding to digital transformation; (2) the processes and stages through which strategic planning for digital transformation is formulated and implemented; and (3) the development of a conceptual model of strategic planning for digital transformation based on *Tuan Guru* leadership.

The significance of this study is threefold. Theoretically, the research contributes to the literature on Islamic educational leadership by integrating strategic planning theory, transformational leadership, and digital transformation within the pesantren context. Practically, the study provides insights for pesantren leaders and policymakers regarding adaptive strategies for managing digital transformation while preserving pesantren identity and Islamic values. Conceptually, the research proposes a contextualized model of strategic digital transformation planning rooted in indigenous Islamic leadership traditions, particularly the leadership of *Tuan Guru* in Lombok pesantren.

B. METHODS

Research Design

This study employed a qualitative approach using a multi-site case study design to explore the strategic planning of digital transformation in Islamic education based on the leadership of Tuan Guru in Lombok Islamic boarding schools (pesantren). The qualitative approach was selected because the study aimed to gain an in-depth understanding of leadership practices, strategic planning processes, organizational culture, and educational transformation within the natural setting of pesantren institutions. Qualitative inquiry enables researchers to interpret social phenomena contextually through participants' experiences, institutional interactions, and value systems embedded in educational practices (Creswell & Poth, 2018)

The multi-site case study design was considered appropriate because this research examined several pesantren affiliated with Nahdlatul Wathan (NW) and Nahdlatul

Ulama (NU) in Lombok that have initiated digital transformation programs while maintaining traditional Islamic educational systems. Multi-site case studies allow comparative and contextual analysis across institutions to identify common patterns and distinctive characteristics of strategic planning practices implemented by Tuan Guru leadership (Yin, 2018).

The primary research sites included Ma'had Darul Hikmah Nurul Hakim Kediri Lombok Barat as the main case, complemented by several pesantren affiliated with NW and NU in Lombok that actively implement digital learning innovation and educational modernization. These institutions were selected purposively based on three criteria: (1) the existence of digital learning integration programs, (2) the central role of Tuan Guru in institutional leadership, and (3) the preservation of traditional pesantren educational values within modernization processes.

Research Participants

The participants in this study consisted of Tuan Guru, pesantren administrators, lecturers (masyayikh), teachers, and students (santri or mahasantri) who were directly involved in educational planning and digital transformation activities. Participants were selected through purposive sampling based on their institutional roles, experiences, and active involvement in strategic decision-making processes related to curriculum planning, digital learning implementation, and pesantren governance.

The main informants included:

1. Tuan Guru as pesantren leaders and strategic policy makers;
2. Directors and curriculum coordinators of pesantren institutions;
3. Lecturers and teachers involved in digital learning integration;
4. Students participating in hybrid learning systems;
5. Administrative staff managing educational technology and digital infrastructure.

This purposive participant selection aligns with qualitative research principles emphasizing information-rich cases capable of providing comprehensive insights into the phenomenon under investigation (Patton, 2015).

Data Collection Techniques

Data were collected through three primary techniques: in-depth interviews, participant observation, and documentation study. The use of multiple data collection methods was intended to ensure comprehensive understanding and strengthen data credibility through triangulation.

In-depth Interviews

Semi-structured in-depth interviews were conducted with Tuan Guru, pesantren administrators, lecturers, and students to explore their perspectives regarding strategic planning and digital transformation in Islamic education. Interview questions focused on:

1. the conceptualization of digital transformation within pesantren;
2. strategic planning mechanisms and policy formulation;
3. leadership roles of Tuan Guru in institutional transformation;
4. organizational readiness and digital adaptation;
5. integration of traditional and digital learning systems.

The interviews also explored the philosophical foundations underlying digital transformation strategies in pesantren, particularly the principle of preserving Islamic educational traditions while adopting beneficial technological innovation. Interviews were conducted flexibly to allow participants to elaborate their experiences and interpretations in depth.

Participant Observation

Participant observation was conducted to examine directly the implementation of digital transformation within educational activities and institutional management. The researcher observed classroom interactions, halaqah discussions, bandongan learning sessions, curriculum meetings, digital learning practices, and the use of technological media such as projectors, online platforms, multimedia presentations, and digital Islamic learning resources.

Observations were also directed toward identifying leadership interactions between Tuan Guru, teachers, and students in implementing strategic educational changes. This observational approach enabled the researcher to understand organizational culture and leadership dynamics within the pesantren environment.

Documentation Study

Documentation analysis was conducted to strengthen empirical findings and provide institutional evidence regarding strategic planning and digital transformation policies. The analyzed documents included:

1. curriculum documents of Ma'had Darul Hikmah Nurul Hakim;
2. institutional strategic plans;
3. pesantren organizational policies;
4. digital learning implementation reports;
5. curriculum distribution documents;
6. internal meeting reports and supervision programs;
7. institutional publications from NW and NU pesantren websites;
8. academic archives related to pesantren modernization and digital transformation.

The documentation study particularly utilized institutional documents from Ma'had Darul Hikmah Nurul Hakim which demonstrated collaborative curriculum planning involving Tuan Guru, lecturers, and administrators in integrating traditional and digital learning approaches.

Data Analysis

Data analysis was conducted interactively and continuously throughout the research process following the model proposed by Miles, Huberman, and Saldaña (2014), consisting of data condensation, data display, and conclusion drawing/verification.

Data Condensation

The researcher selected, simplified, categorized, and coded the collected data according to the research focus. Coding processes emphasized themes related to strategic planning, digital transformation, leadership practices, curriculum innovation, organizational readiness, and pesantren educational values.

Data Display

The categorized data were then organized systematically through matrices, thematic descriptions, conceptual diagrams, and narrative explanations to facilitate interpretation and cross-site comparison. Data displays enabled the identification of patterns, similarities, and differences among pesantren institutions regarding strategic planning processes and leadership approaches.

Conclusion Drawing and Verification

The final stage involved interpreting findings and constructing conceptual conclusions regarding the strategic planning model of digital transformation based on Tuan Guru leadership. Verification processes were conducted continuously to ensure consistency, validity, and conceptual coherence between empirical findings and theoretical frameworks.

Trustworthiness of Data

To ensure research validity and trustworthiness, this study employed several verification strategies including triangulation, member checking, prolonged engagement, and peer debriefing.

Triangulation

Triangulation was conducted through the comparison of data obtained from interviews, observations, and documentation studies. Information from different participants and institutional sites was cross-checked to ensure consistency and credibility.

Member Checkin

The researcher conducted member checking with several key informants to confirm the accuracy of interpretations and findings. Participants were given opportunities to review interview summaries and thematic interpretations to avoid misrepresentation.

Prolonged Engagement

The researcher maintained intensive engagement within the pesantren environment to understand institutional culture, leadership patterns, and educational transformation practices comprehensively.

Peer Debriefing

Academic discussions with fellow researchers and experts in Islamic education and qualitative research were conducted to enhance analytical rigor and minimize subjective interpretation.

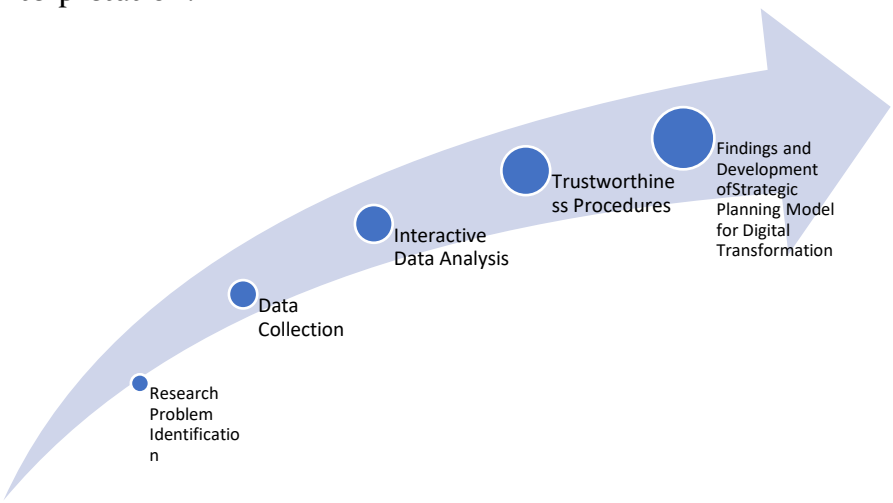


Figure 1. Design of research

C. FINDINGS AND DISCUSSION

Findings

4.1 Conceptual Construction of Strategic Planning for Digital Transformation

The findings reveal that the strategic planning of digital transformation in Islamic education within NW and NU pesantren in Lombok is fundamentally shaped by the leadership vision of the *Tuan Guru*. Digital transformation is not perceived merely as technological modernization, but rather as a strategic effort to strengthen Islamic education, preserve pesantren traditions, and expand the effectiveness of da'wah and knowledge transmission in the digital era.

The leadership orientation of the *Tuan Guru* reflects a value-based strategic perspective grounded in the Islamic principle:

al-muḥāfaẓah 'ala al-qadīm al-ṣāliḥ wa al-akhdzu bi al-jadīd al-aṣlaḥ ("preserving valuable traditions while adopting beneficial innovations").

This principle became the philosophical foundation for designing digital transformation policies in pesantren institutions. Interview findings demonstrated that *Tuan Guru* viewed technology as an instrument for strengthening pesantren educational missions rather than replacing traditional Islamic learning systems.

One of the *masyayikh* at Ma'had Darul Hikmah explained that curriculum planning and digital adaptation were always conducted through collective deliberation involving pesantren stakeholders in order to ensure alignment with Islamic educational values and community needs.

The findings further indicate that strategic planning within pesantren institutions was developed through three major conceptual orientations:

a. Preservation of classical Islamic scholarship (*turāth*);
b. Adaptation to contemporary digital society;
c. Strengthening pesantren institutional sustainability.

These orientations became the basis for integrating digital learning media into pesantren educational systems.

Table 1. Conceptual Orientation of Digital Transformation Planning in Pesantren

Strategic Orientation	Leadership Perspective of Tuan Guru	Institutional Objective
Preservation of Tradition	Maintaining *sorogan*, *bandongan*, and kitab studies	Preserving pesantren identity
Digital Adaptation	Utilizing technology as educational support	Increasing learning effectiveness
Religious Modernization	Integrating Islamic values with digital literacy	Preparing adaptive Muslim generations
Institutional Sustainability	Strengthening pesantren competitiveness	Responding to global educational change

4.2 Strategic Planning Process of Digital Transformation

The research findings demonstrate that the strategic planning process of digital transformation in pesantren follows a gradual, participatory, and culturally adaptive mechanism. The process involves institutional deliberation (*musyawarah*), curriculum redesign, infrastructure development, human resource strengthening, and continuous evaluation led by the *Tuan Guru*.

4.2.1 Collaborative Deliberation (*Musyawarah*)

The first stage of strategic planning involves collaborative deliberation among *Tuan Guru*, pesantren administrators, lecturers, and teachers. The deliberation process functions as an institutional mechanism for identifying educational needs, evaluating existing learning systems, and designing strategic digital initiatives.

Interview data indicate that curriculum planning, digital integration, and institutional supervision are consistently discussed through weekly and monthly meetings involving all educational stakeholders.

This participatory approach strengthens institutional commitment and minimizes resistance toward technological adaptation within pesantren environments.

Table 2. Strategic Planning Stages of Digital Transformation

Planning Stage	Activities	Main Actors
Strategic Deliberation	Institutional meetings and curriculum discussions	Tuan Guru, administrators
Needs Analysis	Identifying digital learning needs	Teachers, curriculum team
Policy Formulation	Designing digital learning strategies	Tuan Guru, leadership board
Infrastructure Development	Procuring digital facilities and media	Institutional management
Human Resource Development	Digital literacy training	Teachers and students
Monitoring & Evaluation	Supervision and program evaluation	Tuan Guru, supervisors

4.2.2 Curriculum and Learning Innovation

The findings reveal that pesantren institutions integrated digital technology into existing traditional curricula rather than replacing classical learning systems. Curriculum implementation at Ma'had Darul Hikmah maintained strong emphasis on *fiqh*, *da'wah*, and classical kitab studies while incorporating multimedia learning resources, digital texts, PowerPoint presentations, and online learning materials.

Traditional learning methods such as *bandongan* and *sorogan* continued to function as the core pedagogical approaches, while digital media were used to reinforce understanding and facilitate broader access to learning resources.

Table 3. Integration of Traditional and Digital Learning Systems

Traditional Learning System	Digital Integration	Educational Function
Bandongan	Learning videos and presentation slides	Reinforcement of material understanding
Sorogan	Audio recordings and digital texts	Independent learning evaluation
Halaqah	Online discussion forums	Extended collaborative discussion
Kitab Kuning	PDF kitab and e-books	Easier access to Islamic references
Face-to-face learning	Multimedia projector support	Interactive instructional delivery

4.2.3 Digital Infrastructure Development

The research identified gradual improvement in digital infrastructure within pesantren institutions. Several pesantren affiliated with NW and NU in Lombok introduced LCD projectors, internet access, digital libraries, and multimedia learning systems to support hybrid learning models.

Although infrastructure limitations remained a challenge in some institutions, leadership commitment from *Tuan Guru* significantly encouraged institutional adaptation toward educational technology.

Observational findings indicate that digital infrastructure development was implemented selectively to ensure compatibility with pesantren culture and educational priorities.

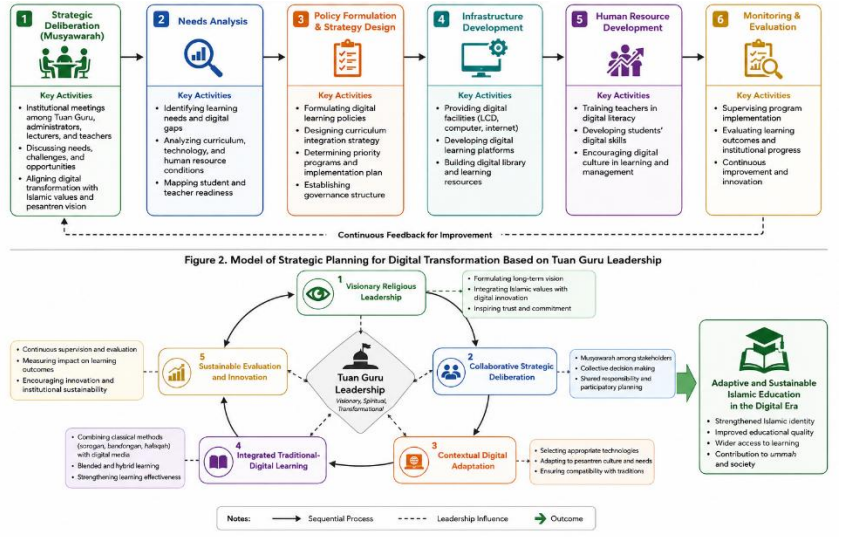


Figure 2. Strategic Planning Framework of Digital Transformation in Pesantren

The findings also indicate that the legitimacy of digital transformation in pesantren strongly depends on the moral and religious authority of the *Tuan Guru*. Teachers and students demonstrated greater acceptance of digital initiatives when these changes were framed within Islamic values and pesantren traditions.

This confirms that digital transformation in Islamic educational institutions is fundamentally a cultural and leadership process rather than solely technological implementation.

4.4 Model of Strategic Planning for Digital Transformation Based on Tuan Guru Leadership

Based on the synthesis of empirical findings, this study proposes a conceptual model of strategic planning for digital transformation in Islamic education grounded in *Tuan Guru* leadership.

Table 4. Components of the Strategic Planning Model for Digital Transformation

Component	Description	Strategic Function
Visionary Religious Leadership	Tuan Guru articulates institutional vision and legitimizes innovation through religious authority.	Provides direction and legitimacy for digital transformation.
Collaborative Strategic Deliberation	Institutional planning through musyawarah involving administrators, teachers, and stakeholders.	Strengthens participation and collective ownership.
Contextual Digital Adaptation	Selective adoption of technology aligned with pesantren values and needs.	Ensures cultural compatibility and organizational readiness.
Integrated Traditional-Digital Learning	Combination of classical learning methods with digital resources and media.	Enhances learning effectiveness while preserving tradition.
Sustainable Evaluation and Innovation	Continuous monitoring, assessment, and improvement of digital initiatives.	Supports long-term sustainability and institutional development.

Table 4 summarizes the five interrelated dimensions that constitute the strategic planning model for digital transformation in pesantren. The model emphasizes the centrality of Tuan Guru leadership in balancing technological innovation with Islamic educational values and institutional traditions.

The relationships among the dimensions of the proposed model are illustrated in Figure 3.

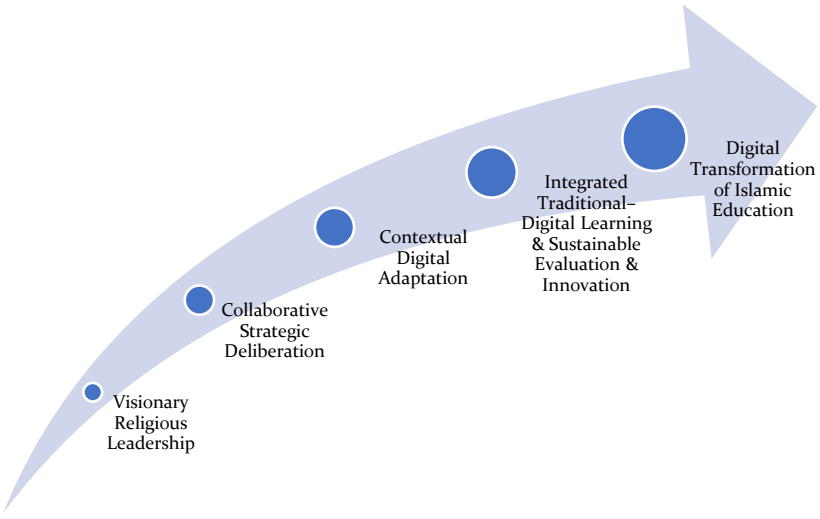


Figure 3. Strategic Planning Model for Digital Transformation Based on Tuan Guru Leadership

The model demonstrates that strategic planning in pesantren digital transformation is inseparable from religious leadership legitimacy and pesantren cultural values. Successful digital transformation occurs when technological innovation is strategically integrated into traditional Islamic educational systems without eliminating pesantren identity.

Overall, the findings confirm that the strategic planning of digital transformation in Islamic education within Lombok pesantren is strongly dependent on the leadership capacity of the Tuan Guru in balancing institutional tradition, technological adaptation, and educational sustainability.

Discussion

5.1 Strategic Leadership and Digital Transformation in Pesantren

The findings of this study demonstrate that digital transformation in Islamic boarding schools (*pesantren*) is fundamentally influenced by the strategic leadership of the *Tuan Guru*. Unlike formal educational institutions where digital transformation is often driven primarily by administrative or technological considerations, transformation within pesantren is strongly shaped by religious authority, cultural legitimacy, and collective institutional values. The *Tuan Guru* functions not merely as an organizational leader but also as a moral authority whose vision significantly determines institutional acceptance toward innovation and change.

This finding supports transformational leadership theory, which emphasizes the importance of visionary leadership, inspirational motivation, and organizational adaptability in periods of institutional transformation (Bass & Riggio, 2006). The leadership practices identified in this study align with previous research indicating that transformational leadership positively influences organizational readiness for technological integration and educational innovation (Schmitz et al., 2023). In the context of pesantren, however, transformational leadership possesses distinctive religious and cultural dimensions rooted in Islamic educational traditions.

The findings further reveal that the strategic planning process in pesantren is not purely technocratic but highly participatory and deliberative. Institutional decisions regarding digital transformation are formulated through *musyawarah* involving *Tuan Guru*, administrators, lecturers, and teachers. This collaborative planning mechanism reflects the pesantren tradition of collective consensus-building while simultaneously strengthening institutional ownership of digital transformation programs. Such findings support the argument that successful digital transformation in educational institutions requires collaborative governance and stakeholder engagement rather than centralized policy imposition alone (Bond et al., 2018).

Moreover, the study demonstrates that the *Tuan Guru* strategically frames digital transformation as a continuation of Islamic educational missions rather than as a threat to pesantren traditions. This strategic framing significantly reduces resistance toward technological adaptation and creates a more culturally acceptable pathway for

innovation. The integration of digital learning tools is therefore interpreted as part of *da'wah*, educational service, and knowledge dissemination in the contemporary era.

Figure 3 and Table 4 provide a visual representation of the proposed model and demonstrate how the five dimensions operate as an integrated system. Visionary religious leadership serves as the foundational driver of transformation, while collaborative deliberation facilitates stakeholder engagement and institutional consensus. Contextual digital adaptation ensures that technological innovation remains aligned with pesantren values. These processes support the integration of traditional and digital learning systems, which are continuously refined through evaluation and innovation. The model therefore illustrates that successful digital transformation in pesantren is a dynamic and cyclical process rather than a linear technological intervention.

5.2 Religious Authority and Institutional Change

One of the most significant findings of this study is the central role of religious authority in legitimizing digital transformation within pesantren institutions. Unlike secular educational organizations, pesantren transformation depends heavily on the moral credibility and spiritual legitimacy of the *Tuan Guru*. Teachers, students, and institutional stakeholders tend to accept technological innovation when it is endorsed and guided directly by respected religious leaders.

This finding confirms Dhofier's (2011) argument that the authority of the *Kiai* or *Tuan Guru* constitutes the core foundation of pesantren organizational structure and cultural continuity. In Lombok pesantren, the *Tuan Guru* functions simultaneously as religious scholar, educational planner, spiritual mentor, and social leader. Consequently, institutional transformation becomes highly dependent on the leader's ability to reinterpret technological innovation within Islamic epistemological frameworks.

The research also reveals that the philosophical principle:

al-muḥāfaẓah 'ala al-qadīm al-ṣāliḥ wa al-akhdzu bi al-jadīd al-aṣlaḥ

serves as a central ideological foundation for pesantren digital transformation. This principle enables pesantren institutions to preserve valuable educational traditions while selectively adopting technological innovation considered beneficial for Islamic education. Such adaptive conservatism represents a unique model of modernization in pesantren culture where innovation is integrated without abandoning institutional identity.

This finding extends previous studies on Islamic educational modernization which often describe pesantren transformation as a process of negotiation between tradition and modernity (Azra, 2019). The present study contributes further by demonstrating that strategic planning and leadership mediation are crucial mechanisms enabling pesantren institutions to navigate this negotiation process effectively.

5.3 Integration of Traditional and Digital Learning Systems

Another important finding concerns the integration of traditional Islamic pedagogical methods with digital learning systems. The study found that pesantren institutions do not eliminate classical learning approaches such as *sorogan*, *bandongan*, and *halaqah*. Instead, digital technology is utilized to strengthen, complement, and expand traditional learning practices.

For example, digital media such as PDF kitab, online discussion forums, multimedia presentations, and projector-assisted teaching are integrated into classical Islamic learning sessions. This hybrid educational model demonstrates that digital transformation within pesantren is adaptive rather than disruptive.

These findings support recent studies emphasizing the effectiveness of hybrid learning models in maintaining educational continuity while improving learning flexibility and accessibility (Mulyadi & Hasanah, 2024). However, this study adds a new dimension by showing how hybrid learning in pesantren is not merely pedagogical integration but also a cultural adaptation process mediated by religious leadership.

The integration of digital learning systems also contributes to broader educational access and learning efficiency. Students are able to access Islamic references digitally, participate in collaborative online discussions, and utilize multimedia resources to deepen their understanding of classical Islamic texts. Nevertheless, the findings indicate that direct teacher-student interaction and spiritual transmission remain central components of pesantren education. Technology functions as a supporting instrument rather than a replacement for traditional religious learning relationships.

This balance between technological innovation and spiritual pedagogy distinguishes pesantren digital transformation from many secular educational modernization models that prioritize efficiency and automation over relational learning and moral formation.

5.4 Strategic Planning Model of Digital Transformation Based on Tuan Guru Leadership

The conceptual model developed in this study demonstrates that successful digital transformation in pesantren institutions depends on the interaction between five interconnected strategic dimensions: visionary religious leadership, collaborative deliberation, contextual digital adaptation, integrated traditional-digital learning, and sustainable evaluation.

The first dimension, visionary religious leadership, emphasizes the strategic role of *Tuan Guru* in articulating institutional vision and legitimizing educational innovation. Leadership vision becomes the driving force that aligns technological adaptation with Islamic educational values and pesantren identity.

The second dimension, collaborative strategic deliberation, reflects the importance of institutional participation in strategic planning processes. The findings indicate that *musyawarah* strengthens collective responsibility, institutional cohesion, and policy sustainability.

The third dimension, contextual digital adaptation, highlights the selective and culturally adaptive approach toward technology integration. Pesantren institutions adopt technologies that support educational objectives while filtering innovations considered incompatible with pesantren values and traditions.

The fourth dimension, integrated traditional-digital learning, represents the hybridization of classical Islamic pedagogy and modern digital learning systems. This integration allows pesantren institutions to maintain educational authenticity while improving instructional effectiveness and digital literacy.

Finally, sustainable evaluation and innovation emphasize the importance of continuous supervision, curriculum review, and institutional adaptation. The *Tuan Guru* plays a significant role in monitoring implementation processes and ensuring that digital transformation remains aligned with Islamic educational missions.

This model contributes theoretically to the literature on Islamic educational leadership by integrating strategic planning theory, transformational leadership, and digital transformation within the context of pesantren institutions. Unlike conventional digital transformation models that focus primarily on technological infrastructure and organizational management, this model positions religious leadership and cultural legitimacy as the central determinants of successful transformation.

5.5 Implications for Islamic Educational Leadership

The findings of this study carry important implications for Islamic educational institutions, policymakers, and future research. First, the study demonstrates that digital transformation in Islamic education requires culturally grounded leadership approaches capable of balancing innovation and tradition. Educational modernization in pesantren cannot rely solely on technological provision but must involve leadership legitimacy and institutional cultural adaptation.

Second, policymakers should recognize the strategic role of *Tuan Guru* and pesantren leadership in implementing educational digitalization programs. Government initiatives aimed at strengthening digital infrastructure in pesantren should therefore incorporate leadership empowerment, digital literacy development, and culturally sensitive policy frameworks.

Third, this study suggests that pesantren institutions possess significant potential to develop alternative models of digital education grounded in ethical values, spiritual formation, and communal learning traditions. In the context of increasing concerns regarding the dehumanization of digital education, pesantren-based digital transformation offers a valuable model emphasizing moral education, relational learning, and value-based technological adaptation.

Finally, this study contributes to the growing discourse on decolonizing educational modernization by highlighting indigenous Islamic leadership practices as legitimate and effective frameworks for institutional transformation. The *Tuan Guru*-based strategic planning model demonstrates that educational innovation in Muslim societies

can emerge from local religious traditions rather than relying exclusively on imported modernization paradigms.

D. CONCLUSION

This study concludes that the strategic planning of digital transformation in Islamic education within Lombok pesantren is fundamentally shaped by the leadership of the Tuan Guru, who positions digital transformation not merely as technological modernization but as a strategic effort to strengthen Islamic educational missions, preserve pesantren traditions, and ensure institutional sustainability. Guided by the principle of preserving valuable traditions while adopting beneficial innovations, Tuan Guru construct digital transformation as an integrative process that combines Islamic values, pesantren culture, and technological adaptation. The transformation is implemented through participatory and collaborative mechanisms involving musyawarah, curriculum redesign, infrastructure development, digital literacy enhancement, and continuous supervision, resulting in a hybrid educational model that integrates traditional learning systems with digital technologies. Based on these findings, the study proposes a strategic planning model consisting of five interconnected dimensions: visionary religious leadership, collaborative strategic deliberation, contextual digital adaptation, integrated traditional-digital learning, and sustainable evaluation and innovation. The model demonstrates that successful digital transformation in pesantren depends not only on technological readiness but also on religious legitimacy, cultural adaptation, and effective leadership in balancing tradition and innovation.

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