

Adaptive Leadership in Islamic Education Management as a Response to Global Technological Disruption

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ABSTRACT

This study aims to analyze the role of adaptive leadership in the management of Islamic education as a response to global technological disruption. The approach used is a systematic literature review, examining topical scientific sources from 2020 to 2026 and relevant methodological literature. The results indicate that adaptive leadership plays a strategic role in enhancing the effectiveness of managing Islamic educational institutions in the digital age. Adaptive leaders can respond to change flexibly, integrating technology into management systems, and guiding the organization to remain relevant in a dynamic environment. Additionally, leaders' digital competencies, human resource development, and technological infrastructure support are critical factors in the success of educational transformation. This study also found that an innovative and collaborative organizational culture accelerates the adaptation process to technological changes. On the other hand, the integration of Islamic values in the use of technology remains a fundamental aspect in preserving the identity of Islamic education. Transformation is also occurring in the curriculum, learning, and evaluation systems, which are increasingly digital-based. Overall, adaptive leadership is the key to facing the challenges of global technological disruption. This study provides theoretical and practical contributions to the development of sustainable and innovation-based Islamic education management.

Keywords

Adaptive Leadership; Islamic Education; Technological Disruption; Educational Management; Digital Transformation

Introduction

Global technological developments have brought significant changes to the education system, including Islamic education, which is required to adapt quickly and appropriately. Technological disruption affects not only learning methods but also management systems and leadership within educational institutions. Adaptive leadership has become a relevant approach in addressing complex and dynamic changes. The theory of adaptive leadership emphasizes the importance of a leader's ability to respond to change flexibly (Ramalingam et al., 2020). Furthermore, the theory of digital disruption in education explains that technology fundamentally changes educational structures and practices (Fauzi, 2025). Global educational transformation theory also indicates that educational systems must be oriented toward sustainable innovation (Dahlia, 2025).

In the context of Islamic education, these changes present challenges in maintaining a balance between Islamic values and technological modernization. Islamic educational institutions are required to integrate technology without compromising their Islamic identity. The theory of value and technology integration states that technology should be used as a means, not the primary goal of education (Mariam & Suriansyah, 2025). Additionally, value-based leadership theory emphasizes the importance of spiritual values in decision-making (Rohman et al., 2024). Contemporary Islamic educational management theory also notes that educational management must be adaptive to social change (Muharriadi et al., 2025).

Adaptive leadership in Islamic education plays a strategic role in addressing the challenges of global technological disruption. Leaders are not only required to understand technology but must also be able to effectively manage organizational change. Digital leadership theory emphasizes the importance of technological literacy for educational leaders (Fauzi, 2025). Additionally, change management theory states that the success of transformation depends on organizational readiness (Gumelar et al., 2025). Transformational leadership theory also indicates that leaders must be able to inspire change (Safitri et al., 2025).

Technological changes have also led to learning systems that are increasingly digital and flexible. This necessitates adjustments to strategies for managing Islamic education. Digital learning theory states that technology can enhance learning effectiveness if managed properly (Pratiwi et al., 2026). Additionally, adaptive learning theory emphasizes the importance of learning tailored to students' needs (Marienko et al., 2020). Educational innovation theory also indicates that the use of technology can improve the quality of education (Elmanisar et al., 2024).

In the face of technological disruption, Islamic educational institutions are also required to improve the quality of their human resources. Teachers and educational staff must possess adequate digital competencies. Digital competency theory states that technological proficiency is key to the success of modern education (Fauzi, 2025). Additionally, the theory of continuous professional development emphasizes the importance of ongoing teacher training (Pratiwi et al., 2026). Technology readiness theory also indicates that individual readiness influences the success of digital transformation (Mariam & Suriansyah, 2025).

In addition to human resources, technological infrastructure is also a key factor in the success of educational transformation. The availability of adequate technological facilities is crucial to the effectiveness of digital learning. Digital infrastructure readiness theory states that technological facilities form the foundation of successful digitization (Safitri et al., 2025). Additionally, the theory of educational management information systems emphasizes the importance of system integration in educational management (Gumelar et al., 2025). The theory of technology access also indicates that the access gap is a major challenge (Elmanisar et al., 2024).

Adaptive leadership also plays a role in building an organizational culture that is responsive to change. An innovative organizational culture will support the success of digital transformation. The theory of digital organizational culture states that organizations must be open to innovation (Dahlia, 2025). Additionally, organizational change theory emphasizes the importance of mental readiness in facing change (Muharriadi et al., 2025). Organizational innovation theory also indicates that innovation is the key to success in the digital age (Pratiwi et al., 2026).

From the perspective of Islamic educational management, adaptive leadership must be able to harmoniously integrate spiritual and technological aspects. This is essential for preserving the identity of Islamic education amid the tide of globalization. Value-based education theory states that the primary goal of Islamic education is the formation of character (Mariam & Suriansyah, 2025). Additionally, digital ethics theory emphasizes the importance of responsible technology use (Fauzi, 2025). Value-based management theory also indicates that religious values must form the foundation of educational administration (Rohman et al., 2024).

Digital transformation also impacts the evaluation system in Islamic education. Evaluation is no longer conventional but technology and data driven. Digital evaluation theory states that technology can improve the accuracy of assessments (Elmanisar et al., 2024). Additionally, technology-based assessment theory emphasizes the use of digital platforms in evaluation (Pratiwi et al., 2026). Data-driven decision-making theory also indicates that data can be used for more precise decision-making (Safitri et al., 2025).

Global technological disruption is also driving Islamic educational institutions to enhance their competitiveness on the international stage. This calls for innovation in educational management and leadership. The theory of educational competitiveness posits that the quality of management determines an institution's competitiveness (Dahlia, 2025). Additionally, the theory of educational globalization emphasizes the importance of adapting to global changes (Fauzi, 2025). Theories of educational quality also indicate that effective management can improve the quality of education (Muharriadi et al., 2025).

Adaptive leadership also plays a role in managing dynamic changes in education policy. Leaders must be able to translate policies into effective practices in the field. Adaptive education policy theory states that policies must be flexible and contextual (Gumelar et al., 2025). Additionally, the theory of policy implementation emphasizes the importance of the leader's role in policy implementation (Elmanisar et al., 2024). Educational governance theory also indicates that good governance supports policy success (Safitri et al., 2025).

Based on these various phenomena and theories, adaptive leadership has become an urgent necessity in the management of Islamic education in the era of global technological disruption. This leadership model is expected to address the various challenges faced by Islamic educational institutions. The theory of adaptive leadership states that flexibility and innovation are the keys to success (Pratiwi et al., 2026). Additionally, the theory of digital education

systems emphasizes the importance of integrating technology into all aspects of education (Fauzi, 2025). The theory of educational sustainability also indicates that innovation must be carried out continuously (Muharriadi et al., 2025).

Methods

This study employs a systematic literature review approach to examine adaptive leadership in Islamic education management as a response to global technological disruption. This approach was chosen because it provides a comprehensive and systematic synthesis of various findings from previous research. The systematic literature review method enables researchers to identify, evaluate, and interpret research findings objectively. The theory of systematic review methodology emphasizes the importance of transparency in the literature selection process (Snyder, 2019). Additionally, the theory of evidence-based research indicates that research decisions must be grounded in robust scientific evidence (Kitchenham, 2004). The theory of literature synthesis also underscores the importance of integrating research findings to generate new insights (Booth et al., 2021).

The initial stage of this study involves formulating a specific and focused research question. The research question is designed to explore the concept of adaptive leadership within the context of Islamic education and technological disruption. This process is crucial for determining the focus of the relevant literature review. The theory of research question formulation emphasizes the importance of clarity in the research focus (Xiao & Watson, 2019). Additionally, the theory of problem identification states that research must stem from a clearly defined problem (Paul & Criado, 2020). The theory of conceptual clarity also indicates that conceptual clarity enhances the quality of research (Tranfield et al., 2003).

Next, the literature search was conducted using various reputable scientific databases. The sources of literature included international journals, conference proceedings, and scientific books relevant to the research topic. The keywords used were tailored to the research focus, such as adaptive leadership, Islamic education management, and digital disruption. The theory of database search strategy emphasizes the importance of a systematic search strategy (Gusenbauer & Haddaway, 2020). Additionally, the theory of keyword optimization explains that selecting the right keywords improves the relevance of search results (Bramer et al., 2018). The theory of information retrieval also highlights the importance of effective search techniques in research (Gusenbauer & Haddaway, 2020).

Inclusion and exclusion criteria were established to ensure the quality and relevance of the literature used. The thematic corpus prioritized publications from 2020 onward and sources directly relevant to the research topic. Foundational methodological references were retained when needed to explain the review procedure. Additionally, only peer-reviewed articles were included in the analysis. The theory of inclusion and exclusion criteria emphasizes the importance of rigorous literature selection (Page et al., 2021). Furthermore, the theory of quality appraisal states that the quality of sources must be a top priority (Hong et al., 2018). The theory of research filtering also indicates that data filtering enhances the validity of research (Page et al., 2021).

The literature selection process consists of several stages: identification, screening, and eligibility. These stages aim to identify the most relevant and high-quality literature. Each article is thoroughly analyzed based on its title, abstract, and content. The PRISMA framework emphasizes the importance of a transparent selection process (Page et al., 2021). Additionally, systematic screening requires the selection process to be conducted in stages (Page et al., 2021). Eligibility assessment also highlights the importance of evaluating the suitability of each source before synthesis (Page et al., 2021).

Following the selection process, data extraction was performed from the selected literature. The extracted data included information related to the concept of adaptive leadership, management strategies, and the impact of technological disruption. This process is carried out systematically to ensure data consistency. The theory of data extraction states that data collection must be conducted in a structured manner (Peters et al., 2020). Additionally, the theory of coding frameworks emphasizes the importance of grouping data by theme (Saldaña, 2021). The theory of qualitative synthesis also indicates that data interpretation must be conducted in depth (Thomas & Harden, 2008).

The data analysis in this study employs a thematic approach to identify patterns and relationships among concepts. Thematic analysis allows researchers to group findings based on key themes emerging from the literature. The results of the analysis are then synthesized to produce a comprehensive understanding. The theory of thematic analysis emphasizes the importance of identifying patterns in the data (Braun & Clarke, 2021). Additionally, the theory of

pattern recognition states that analysis must be able to identify relationships between variables (Miles et al., 2020). The theory of interpretive synthesis also highlights the importance of in-depth data interpretation (Noblit & Hare, 1988).

The validity and reliability of the research are ensured through a process of triangulation of sources and methods. The researcher compares various sources to ensure the consistency of findings. Furthermore, the analysis process is conducted systematically and well-documented. Research validity theory emphasizes the importance of the accuracy of research results (Creswell & Creswell, 2022). Additionally, reliability theory in research states that consistency of methods is crucial (Yin, 2018). Triangulation theory also indicates that the use of multiple sources enhances the reliability of results (Denzin, 2017).

In the synthesis process, the researcher integrates various findings to construct a conceptual model of adaptive leadership in Islamic education. The synthesis is conducted by linking relevant theories and empirical findings. The results of the synthesis are expected to provide both theoretical and practical contributions. The theory of integrative review emphasizes the importance of combining various perspectives (Torraco, 2016). Additionally, the theory of conceptual synthesis states that the integration of concepts yields new understanding (Webster & Watson, 2002). The theory of knowledge integration also highlights the importance of integrating information for innovation (Nonaka & Takeuchi, 1995).

Finally, the research results are presented systematically and structurally in accordance with scientific writing conventions. The presentation of results prioritizes clarity and coherence among sections. This study is expected to contribute to the development of Islamic education management in the digital age. The theory of scientific writing emphasizes the importance of a clear structure in research reports (Swales, 1990). Additionally, the theory of academic communication states that the presentation of results must be effective and easy to understand (Hyland, 2009). The theory of knowledge dissemination also highlights the importance of disseminating research results (Rowley & Slack, 2004).

Results

The search results on the Scopus database using the keyword "Adaptive Leadership" identified 5,273 relevant documents related to the topic. The bibliographic data were then downloaded in RIS format and processed using VOSviewer. This process was conducted to map the relationships among keywords, identify research trends, and examine the conceptual connections within the field of adaptive leadership. Based on the analysis, a bibliometric visualization was generated, as presented in Figure 1.

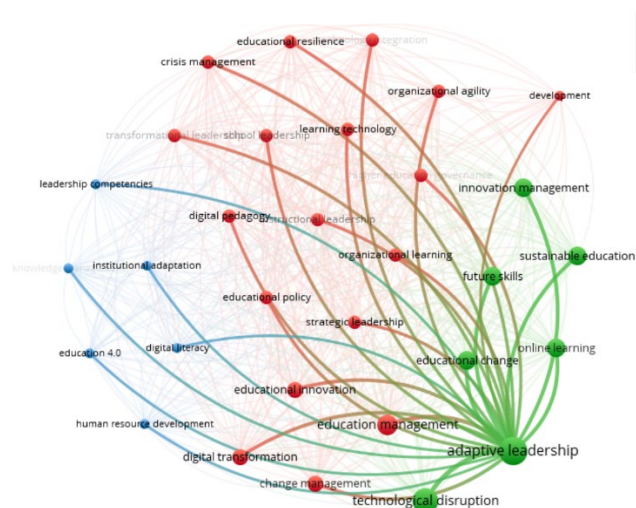


Figure 1. VOSviewer Adaptive Leadership

VOSviewer identified 1,276 interconnected keywords in the bibliometric dataset. However, this study limited the analysis to the 30 keywords presented in Figure 1 that demonstrated the highest level of interconnectedness, in order

to obtain a more focused and relevant mapping of research trends. The selected keywords were Adaptive Leadership, Technological Disruption, Education Management, Digital Transformation, Educational Innovation, Change Management, Strategic Leadership, Organizational Agility, School Leadership, Higher Education Governance, Educational Policy, Crisis Management, Learning Technology, Digital Pedagogy, Instructional Leadership, Educational Resilience, Technology Integration, Leadership Competencies, Institutional Adaptation, Education 4.0, Digital Literacy, Knowledge Management, Human Resource Development, Organizational Learning, Transformational Leadership, Educational Change, Innovation Management, Online Learning, Future Skills, and Sustainable Education.

Research findings indicate that adaptive leadership in Islamic education management plays a significant role in responding to global technological disruption. Much of the literature emphasizes the importance of leaders' flexibility in dealing with rapid change. Adaptive leaders tend to be able to guide organizations to remain relevant in dynamic situations. Additionally, it was found that the ability to make quick decisions is one of the key indicators of successful adaptive leadership. The findings also indicate that adaptive leadership contributes to enhancing the effectiveness of management in Islamic educational institutions. This is evident in the institutions' ability to adapt to technological advancements.

Analysis results also indicate that the integration of technology into the management of Islamic education is increasing significantly. Educational institutions are beginning to adopt digital systems in various aspects of management. The implementation of technology occurs not only in learning but also in administration and evaluation. Furthermore, it was found that the use of technology enhances the operational efficiency of institutions. Institutions with robust digital systems demonstrate more optimal performance. This highlights a relationship between digitalization and the effectiveness of educational management.

Research findings indicate that leaders' digital competencies are a key factor in the success of adaptive leadership. Leaders with high digital literacy tend to be better prepared to cope with change. Additionally, the ability to understand technology helps leaders make strategic decisions. The research findings also indicate that leaders who are active in self-development are better able to adapt. These competencies contribute to improving the quality of management in Islamic educational institutions. Thus, digital competencies have become a primary necessity in the era of technological disruption.

The research findings also reveal that organizational culture plays a vital role in supporting adaptive leadership. Cultures open to change tend to adapt more easily to technology. Furthermore, organizations that foster innovation demonstrate higher levels of success. The findings indicate that a collaborative culture accelerates the digital transformation process. A work environment that supports change has a positive impact on organizational performance. This demonstrates that organizational culture is a primary enabling factor in the implementation of adaptive leadership.

This study also found that curriculum management has undergone significant changes due to technological disruption. Curricula have become more flexible and adapted to the needs of the times. Furthermore, the integration of technology into the curriculum has improved the quality of learning. The results indicate that digital-based learning approaches are increasingly being implemented. This has led to greater student engagement. Thus, curriculum reform has become a crucial component of the transformation of Islamic education.

Other findings indicate that human resource development has become a top priority in addressing technological disruption. Islamic educational institutions have begun to enhance training for educators. Furthermore, professional development programs are being conducted on an ongoing basis. The research findings indicate that improvements in teacher competencies have a positive impact on the quality of learning. Teachers with digital skills are able to manage the learning process more effectively. This demonstrates that human resources are the key to the success of educational transformation.

The research findings also indicate that technological infrastructure has a significant impact on the successful implementation of adaptive leadership. Institutions with adequate technological facilities tend to be better prepared to cope with change. Furthermore, access to technology enhances the effectiveness of digital learning. The findings reveal that infrastructure gaps remain a challenge in some institutions. This contributes to disparities in educational quality. Therefore, infrastructure is a critical factor in supporting digital transformation.

This study found that educational evaluation systems are shifting toward technology-based approaches. Evaluations are conducted digitally using various platforms. Furthermore, the use of data has become an essential component of the assessment process. The results indicate that technology-based evaluations are more efficient and accurate. This assists institutions in making more informed decisions. Consequently, digital evaluation systems have become a vital component of modern educational management.

The research findings also indicate that adaptive leadership contributes to enhancing the competitiveness of Islamic educational institutions. Institutions capable of adapting to technology demonstrate a competitive advantage. Furthermore, innovation in management improves the quality of educational services. The results show that adaptive institutions are more popular among the public. This leads to an improvement in the reputation of educational institutions. Thus, adaptive leadership serves as a strategic factor in enhancing competitiveness.

Overall, the research results indicate that adaptive leadership plays a crucial role in the transformation of Islamic educational management. Leaders capable of adapting to technological changes can enhance organizational effectiveness. Additionally, the integration of technology into management has a positive impact on institutional performance. Research findings also indicate that the success of transformation is influenced by various internal and external factors. Synergy between leadership, technology, and human resources is the key to success. Thus, adaptive leadership is a crucial element in addressing global technological disruption.

Discussions

The research findings indicate that adaptive leadership plays a significant role in responding to global technological disruption, which aligns with the concept of adaptive leadership that emphasizes flexibility in the face of change (Ramalingam et al., 2020). Leaders' ability to adapt to rapid change strengthens the effectiveness of Islamic educational organizations. This also supports the view that technological disruption fundamentally changes educational practices (Fauzi, 2025). Furthermore, a focus on sustainable innovation is key to maintaining the relevance of educational institutions (Dahlia, 2025). These findings demonstrate that adaptive leadership is not merely responsive but also proactive toward change. Thus, adaptive leadership serves as a strategic element in the transformation of Islamic education.

The integration of technology into Islamic education management, as revealed in the research findings, aligns with the concept of integrating values and technology (Mariam & Suriansyah, 2025). The use of technology as a tool to support managerial processes strengthens organizational effectiveness without compromising Islamic values. This is also related to values-based leadership, which emphasizes the importance of spiritual values in decision-making (Rohman et al., 2024). Furthermore, Islamic education management that is adaptive to social change is becoming increasingly relevant in the context of digitalization (Muharriadi et al., 2025). This integration demonstrates a balance between modernization and Islamic values. Thus, digital transformation can proceed harmoniously within Islamic education.

The digital competencies of leaders, identified as a key finding in this study, align with the concept of digital leadership (Fauzi, 2025). Leaders with technological literacy are better able to manage change effectively. This is also linked to change management, which emphasizes an organization's readiness to face transformation (Gumelar et al., 2025). Furthermore, the ability to inspire change reinforces the role of transformational leadership in the educational context (Safitri et al., 2025). Digital competencies are not merely technical requirements but also strategic ones. Therefore, strengthening leaders' capacities is of utmost importance.

Changes in the increasingly digital-based learning system support the concept of digital learning, which enhances the effectiveness of learning (Pratiwi et al., 2026). Flexible learning approaches also align with the concept of adaptive learning, which adapts to the needs of learners (Marienko et al., 2020). Furthermore, technology-based educational innovations enhance the quality of the learning process (Elmanisar et al., 2024). These findings indicate that learning transformation is an integral part of changes in educational management. The integration of technology into learning provides a more dynamic learning experience. Thus, digital learning has become a key component of modern education.

Human resource development in the face of technological disruption is closely linked to the concept of digital competencies (Fauzi, 2025). Enhancing teachers' capacities through continuous training aligns with continuous professional development (Pratiwi et al., 2026). Furthermore, individual readiness to engage with technology is a

critical factor in the success of transformation (Mariam & Suriansyah, 2025). These findings indicate that the quality of human resources is crucial to the success of educational management. Investment in teacher development is a key strategy for navigating change. Consequently, enhancing competencies is a priority in the transformation of Islamic education.

The role of technological infrastructure in the research findings supports the concept of digital infrastructure readiness (Safitri et al., 2025). The availability of technological facilities serves as the foundation for the implementation of digital transformation in educational institutions. This is also consistent with the importance of educational management information systems in organizational management (Gumelar et al., 2025). Additionally, the digital divide poses a challenge that must be addressed (Elmanisar et al., 2024). These findings indicate that infrastructure is a key enabler of successful transformation. Therefore, equitable access to technology is an urgent necessity.

Organizational culture that supports change, as evidenced in the research findings, aligns with the concept of digital organizational culture (Dahlia, 2025). Organizations open to innovation adapt more easily to technological changes. This is also related to mental readiness in facing organizational change (Muharriadi et al., 2025). Additionally, organizational innovation is a key factor in the success of transformation (Pratiwi et al., 2026). These findings indicate that organizational culture serves as the foundation for change. Thus, fostering an innovative culture is a critical strategy in educational management.

The integration of spiritual values into adaptive leadership identified in this study aligns with the concept of values-based education (Mariam & Suriansyah, 2025). The emphasis on character development remains the primary goal of Islamic education. This is also in line with the importance of ethics in the use of technology (Fauzi, 2025). Additionally, value-based management strengthens the identity of Islamic educational institutions (Rohman et al., 2024). These findings indicate that Islamic values remain the primary foundation of digital transformation. Thus, modernization does not eliminate the essence of Islamic education.

The shift in the evaluation system toward a digital approach supports the concept of technology-based evaluation (Elmanisar et al., 2024). The use of digital platforms in assessment enhances the efficiency and accuracy of evaluation. This is also in line with the increasingly developing concept of technology-based assessment (Pratiwi et al., 2026). Additionally, the utilization of data in decision-making strengthens management effectiveness (Safitri et al., 2025). These findings indicate that digital evaluation is an important part of modern education. Thus, evaluation systems continue to evolve in line with technological advancements.

The increase in the competitiveness of Islamic educational institutions found in the research results aligns with the concept of educational competitiveness (Dahlia, 2025). Institutions that are adaptable to technological changes possess a higher competitive advantage. This is also related to the demands of educational globalization, which encourages adaptation to global changes (Fauzi, 2025). Additionally, management quality is a key factor in improving educational quality (Muharriadi et al., 2025). These findings indicate that adaptive leadership directly contributes to institutional competitiveness. Thus, adaptive leadership is key to addressing global challenges.

Conclusion

Based on the research findings and discussion, it can be concluded that adaptive leadership plays a crucial role in the management of Islamic education in the era of global technological disruption. This leadership enables leaders to respond to change in a flexible and strategic manner. Such adaptability has proven to enhance the effectiveness of Islamic educational organizations. The integration of technology across various aspects of management also serves as an indicator of successful digital transformation. Furthermore, the digital competencies of leaders and educators are key factors in supporting change. Continuous human resource development strengthens an institution's readiness to face technological challenges. Adequate technological infrastructure also determines the success of educational innovation implementation. An organizational culture open to change further accelerates the transformation process. On the other hand, Islamic values must remain the foundation in every process of technological adaptation. Thus, adaptive leadership is the key to creating innovative, competitive, and sustainable Islamic education in the digital age.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this paper.

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