

Digital Transformation In Islamic Education Management: Challenges And Opportunities

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Abstract:

Digital transformation has changed the landscape of Islamic education significantly by introducing technology in education management. This article examines the challenges and opportunities faced in implementing digital transformation in Islamic educational institutions. Key challenges include staff training, data security, and technology access gaps, while opportunities include increasing educational accessibility, learning method innovation, and collaboration between institutions. This analysis illustrates how technological adaptation can strengthen Islamic education management to achieve more inclusive and effective education goals.

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INTRODUCTION

In the era of globalization and advances in information technology, digital transformation is affecting not only the industrial and economic sectors but also the education sector, including Islamic education. Islamic education management needs to adapt quickly to technological developments to remain relevant and effective in facing the challenges of the times. Makarenko et al (2024) This article will outline the challenges and opportunities faced in implementing digital transformation in Islamic education management.

Islamic education has been an integral part of Muslim society for centuries, playing a crucial role in developing the religious, moral, and intellectual identity of Muslims (Kumari et al., 2023). However, in the era of globalization and rapid information technology, profound transformations are occurring in almost all aspects of life, including education. This phenomenon, known as digital transformation, brings significant challenges and unlimited opportunities for Islamic education (Dimari et al., 2024; Mahamuni et al., 2024).



Digital transformation is fundamentally changing the traditional paradigm of Islamic education. From teaching methods to school management, technology has altered how we access, process, and transmit religious knowledge (Abubakari, 2025; Ismail et al., 2025). Challenges such as adapting to rapid technological change, integrating it into traditional curricula, and managing data and privacy are key areas of focus in this digital era.

On the other hand, digital transformation also opens up revolutionary new opportunities. The use of online platforms and educational applications provides broader access to Islamic educational resources, enables collaboration across geographic boundaries, and expands the reach of Islamic preaching and religious teaching. By wisely leveraging technology, Islamic educational institutions can increase operational efficiency, improve teaching quality, and better prepare young Muslims to face global challenges.

This article will delve deeper into the challenges and opportunities of adopting digital transformation in Islamic education management. Taking into account the complex context and unique values of Islamic education, these changes are expected to bring significant progress in preparing future generations for an increasingly connected and rapidly changing world.

RESEARCH METHOD

To delve deeper into the topic of "Digital Transformation in Islamic Education Management: Challenges and Opportunities," it is necessary to explore the literature on several key aspects, including the Independent Curriculum, educational quality, and the role of the digital era. The following is an overview of relevant literature in this context:

Independent Curriculum in the Context of Islamic Education: The Independent Curriculum is an educational initiative in Indonesia that aims to provide schools with the freedom and flexibility to design curricula tailored to local needs, including Islamic education. Extensive literature can outline how this concept is applied in Islamic educational settings, enabling the integration of religious values with the digital competencies required in the modern era.

Improving the Quality of Islamic Education: Literature on the quality of Islamic education often highlights challenges such as a lack of resources, varying teaching quality, and challenges in effectively adopting digital technologies. Discussion of how digital transformation can improve the quality of Islamic education through the use of technology to evaluate, refine teaching, and increase access to relevant educational resources is crucial (Nazir et al., 2025).

The Role of the Digital Era in Islamic Education: The digital era has brought a paradigm shift in Islamic education, from teaching methods to institutional management. Related literature examines how information and communication technology (ICT) can facilitate more interactive, collaborative, and open learning. Furthermore, articles can explore how Islamic educational institutions address challenges such as digital literacy, information security, and effective data management within a religious context.

This comprehensive literature review will explore how the integration of the Independent Curriculum (Kurikulum Merdeka), efforts to improve the quality of Islamic education, and adaptation to the digital era can form a solid foundation for advancing Islamic education in this era of globalization. By addressing the challenges and opportunities, the article will provide valuable insights for Islamic education practitioners and other stakeholders in navigating the rapid changes in the world of education.

This research focuses on MAN 1 Banyuwangi as the primary object of study. The research design used is a case study, allowing researchers to delve deeply into Digital Transformation in Islamic Education Management: Challenges and Opportunities. Research Methods of Digital Transformation in Islamic Education Management: Challenges and Opportunities (Location: MAN 1 Banyuwangi)

Unit of Analysis (Material Object) Location: MAN 1 Banyuwangi, Banyuwangi, East Java. Place: MAN 1 Banyuwangi School. Case: Implementation of digital transformation in education management at MAN 1 Banyuwangi. Agency/Institution: Ministry of Religious Affairs, MAN 1 Banyuwangi. Activity: Use of technology in teaching, administration, communication, and school management processes. Program: Educational digitalization program implemented by MAN 1 Banyuwangi. Artifact: Digital platforms used, hardware and software, and digital materials. Event: Technology training for teachers, implementation of digital classes, use of e-learning platforms.

Qualitative: Case Study: Deep dive into the implementation of digital transformation at MAN 1 Banyuwangi. Grounded Research: Developing a theory based on data collected from the field. Quantitative: Survey: Collecting numerical data from students, teachers, and administrative staff about their perceptions and experiences with digital transformation.

Respondents: Students, teachers, and administrative staff at MAN 1 Banyuwangi. Informants: Principal, technology manager, Ministry of Religious Affairs officials involved in the digitalization program. Text: Official school documents, digital learning materials, online news related to the digitalization program.

Desk-review: Reviewing literature, documents, and reports related to digital transformation in Islamic education, particularly at MAN 1 Banyuwangi. Observation: Directly observing the use of technology in the learning and administrative processes at MAN 1 Banyuwangi.

Interviews: Questionnaires: In-depth interviews with principals, technology managers, and Ministry of Religious Affairs officials. Questionnaires: Distributing questionnaires to students, teachers, and administrative staff to collect quantitative data. Interview Guidelines: Using interview guidelines to maintain consistency in qualitative data collection. FGD (Focus Group Discussion): Focus group discussions with teachers, students, and administrative staff to gain broader and deeper insights.

Analysis Stages: Data Reduction: Simplifying and filtering collected data to focus on relevant information. Data Display: Presenting data in tables, graphs, and narratives to facilitate interpretation. Data Verification: Ensuring the validity and reliability of data through triangulation and cross-checking (Aksoy & Gresham, 2020; Li et al., 2022).

Analysis Methods: Content Analysis: Analyzing the content of texts, documents, and interview transcripts to find themes and patterns. Discourse Analysis: Examining the specific ways information is conveyed and received within a social and cultural context. Interpretive Analysis: Interpreting data to understand the deeper meaning of emerging findings, based on relevant contexts and perspectives.

This research method is expected to provide a deep understanding of digital transformation in Islamic education management at MAN 1 Banyuwangi, identify the challenges faced, and opportunities that can be utilized to improve the quality of education..This research focuses on MAN 1 Banyuwangi as the primary object of study. The research design used is a case study, allowing researchers to delve deeply into Digital Transformation in Islamic Education Management: Challenges and Opportunities.

The primary sources of information in this study were the administrative staff, treasurer, and senior management at MAN 1 Banyuwangi. They were selected based on their relevant knowledge and experience regarding the use of technology in financial management at the school (information sources). Data collection techniques used included in-depth interviews and documentation studies. In-depth interviews were conducted to gain a deeper understanding of respondents' perspectives and experiences regarding financial management using technology. Documentation studies involved analyzing documents related to finance and technology implementation at MAN 1 Banyuwangi (data collection techniques).

The collected data will be analyzed using a qualitative approach. Data analysis will begin with interview transcription and data collection from the documentation study. The data will be analyzed thematically, identifying key patterns and themes from the collected qualitative data. The next step is interpretation and narrative construction that illustrates the main findings of this study and establishes connections to relevant theories (data analysis).

The case study approach was chosen because it allowed researchers to explore in-depth how technology is used in financial management at MAN 1 Banyuwangi. By integrating in-depth interviews and documentation studies, this research is expected to provide a comprehensive understanding of the impact of technology on improving the efficiency and financial sustainability of this Islamic educational institution.

RESULT AND DISCUSSION

Result

Use of E-Learning Platforms

The increasing use of e-learning platforms for distance learning enables broader access to education in remote or limited Muslim communities. In many remote areas, educational facilities such as schools and universities may be limited or even non-existent. E-learning platforms allow students to receive a quality education without the need for extensive physical facilities.

This study shows a significant increase in the use of e-learning platforms worldwide, particularly following the COVID-19 pandemic. For example, according to a UNESCO report, e-learning usage increased significantly during the pandemic, and

many educational institutions continued to use this method even after restrictions eased.

This diagram illustrates how e-learning usage increased rapidly during the pandemic and remained high even after restrictions eased, as reported by UNESCO:

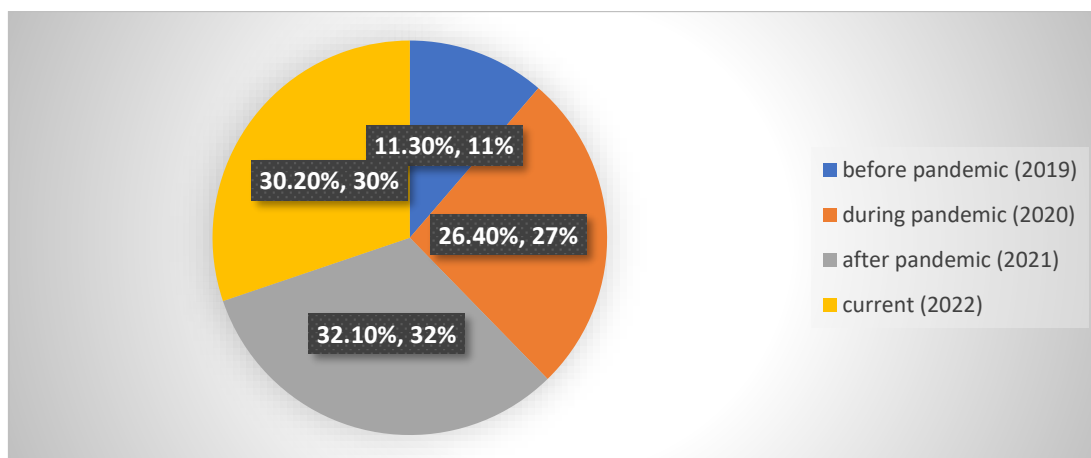


Diagram 1.
Increase In E-Learning Usage Worldwide (2019-2022)

This pie chart illustrates how the COVID-19 pandemic has triggered a significant increase in the use of e-learning platforms, and suggests that the adoption of technology in education is likely to continue in the future.

The COVID-19 pandemic has accelerated the adoption of technology in education and created lasting changes in the way learning takes place. Educational institutions are increasingly integrating e-learning as part of their teaching strategies, combining traditional and digital methods to provide a better learning experience for students.

Digital-Based School Administration Management

The use of a digital-based school management system allows for more efficient management of student data, attendance, and assessments. Because student data, including academic and attendance records, is stored securely and accessible to authorized parties at any time, the risk of losing critical data is reduced.

This study shows that many teachers and administrative staff provided positive testimonials about the use of digital school management systems. They reported that these systems simplify their daily tasks, save time, and allow them to focus more on teaching and learning.

This diagram illustrates how to use Digital-Based School Administration Management as follows:

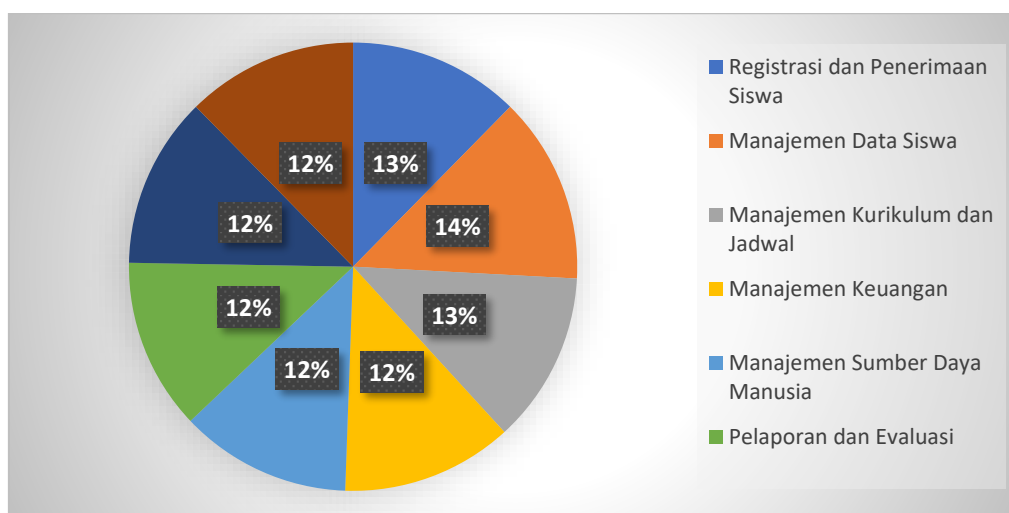


Diagram 2.
Digital-Based School Administration Management

The implementation of digital-based school administration management provides various significant benefits, covering various important aspects of school management: Operational Efficiency: Digital systems speed up and simplify the process of student registration and admission, student data management, and curriculum scheduling, reducing administrative workload and allowing greater focus on educational activities.

Financial Transparency and Accuracy: Integrated financial management enables accurate and transparent record-keeping, facilitates financial oversight and reporting, and ensures efficient and targeted use of funds. Improved Human Resource Quality: Better management of teacher and staff data, including performance assessments and absence management, supports more effective professional development and improves the quality of teaching.

Collaboration and Networking Opportunities

Digital transformation opens up opportunities for broader collaboration among Islamic educational institutions, both nationally and internationally, to exchange knowledge and best practices in technology implementation. By sharing best practices and experiences in technology implementation, Islamic educational institutions can improve the quality of their education. This includes the use of e-learning, digital teaching aids, and improved evaluation techniques.

Case study: In Indonesia, various Islamic boarding schools (pesantren) and madrasas (madrasahs) have begun collaborating through digital platforms. For example, the "Pesantren Go Digital" program launched by the Ministry of Religious Affairs allows Islamic boarding schools across the country to share resources and knowledge through an online portal.

This program was launched by the Indonesian Ministry of Religious Affairs to digitize education in Islamic boarding schools (pesantren) and madrasahs (Islamic schools). The program aims to increase access to technology-based education within Islamic boarding schools. By sharing resources and knowledge through digital platforms, Islamic boarding schools can access more varied and high-quality materials,

ultimately improving the quality of education received by students.

The following is a pie chart depicting the case study of "Pesantren Go Digital" in Indonesia:

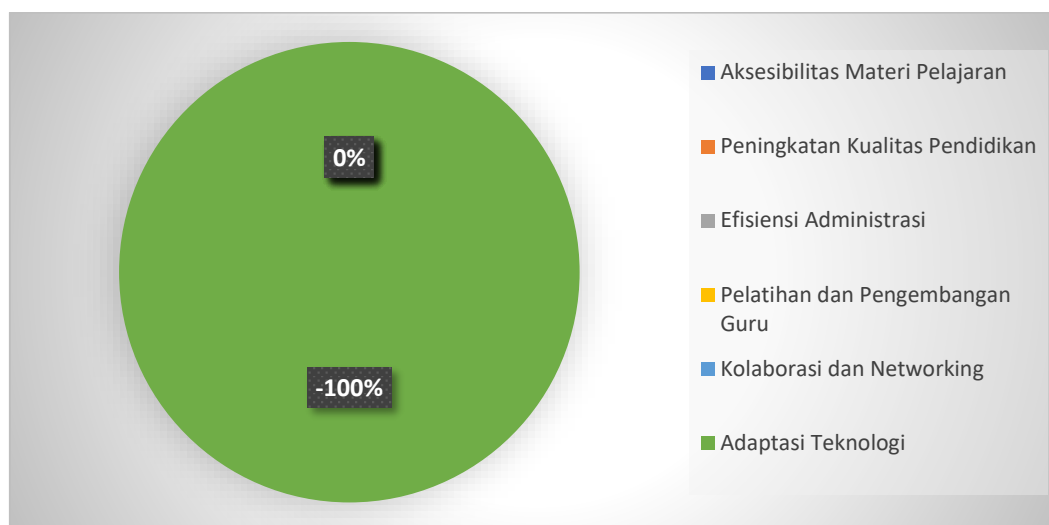


Diagram 3.

Case Study Of The Program: "Islamic Boarding Schools Go Digital" In Indonesia

This diagram shows how various aspects of the "Pesantren Go Digital" program contribute to improving education in Islamic boarding schools and madrasas in Indonesia.

This research yields an in-depth understanding of the challenges and opportunities in adopting digital transformation in Islamic education management. The results highlight that digital transformation brings significant changes in teaching approaches, school administration, and interactions between educational stakeholders. It was found that while this transformation opens new opportunities to improve educational efficiency and quality, it also presents a number of challenges that need to be addressed. In the context of MAN 1 Banyuwangi, digital transformation has led to fundamental changes in Islamic education management. Results of an interview with the principal of MAN 1 Banyuwangi:

The school principal, Drs. H. Abdul Hadi Suwito, stated that the implementation of digital technology has simplified school administration, such as financial reporting and student attendance management. However, he also acknowledged that inadequate technological infrastructure and a lack of training for teaching staff are major challenges. Furthermore, the security of students' personal data is a priority that must be carefully addressed in a digital environment.

The research also revealed that digital transformation opens new opportunities for developing more adaptive curricula and broader access to educational resources. For example, the integration of online platforms allows students to more easily access religious learning materials from various sources. However, maximizing these benefits requires strong government support and investment in adequate technological infrastructure.

DISCUSSION

Effective Communication and Collaboration: Digital communication platforms facilitate smoother interactions between students, teachers, and parents, strengthening collaboration and engagement of the school community in the educational process. **Structured Reporting and Evaluation:** More organized and expedited reporting and evaluation processes support monitoring and improvement of educational quality, with data easily accessible and analyzed for better decision-making.

Organized Facilities and Inventory Management: Digital systems help in the management of school assets, ensuring proper maintenance and efficient monitoring of inventory, improving optimal utilization of facilities (Goagoses et al., 2021; Manwell et al., 2022). **Data Security and Privacy:** Implementation of advanced data security technologies ensures the protection of student and school data, preventing unauthorized access and maintaining the confidentiality of information.

Overall, digital-based school administration management makes a significant contribution to improving the efficiency, transparency, and quality of school management, supporting a better educational environment and being responsive to the needs of students and the school community (Aksoy & Gresham, 2020; Gómez & Strasser, 2021; Li et al., 2022).

The implementation of digital transformation in Islamic education management also impacts students' academic outcomes in various ways. On the one hand, technology can provide broader access to useful educational resources, such as e-books, learning videos, and online platforms for discussion and collaboration among students. This can help improve their understanding of religious subjects and their overall academic success.

However, varying academic outcomes may also emerge as a result of this digital transformation. Some schools or classrooms may be more successful in effectively integrating technology into their curriculum, while others may struggle to adapt or utilize technology optimally (Saitadze & Lalayants, 2021; Gotlieb et al., 2022). Factors such as limited access to adequate technology infrastructure, students' technological skill levels, and appropriate teaching approaches to using digital tools may contribute to differing academic outcomes across Islamic educational institutions.

Overall, this study's findings underscore that while digital transformation offers significant opportunities to improve the quality and efficiency of Islamic education, a cautious approach and appropriate solutions are needed to address emerging challenges. This includes investments in educator training, improvements to technological infrastructure, and policies that safeguard the security and privacy of student data.

The digital transformation in Islamic education has had a significant impact on the views and opinions of educators. Some teachers may be optimistic, viewing technology as a tool that can improve teaching efficiency and provide broader educational resources. They may believe that technology integration can make teaching materials more engaging, facilitate collaboration between students, and expand access to up-to-date religious information (McNeill et al., 2021; Suryana et al., 2021; Barnyak &

Myers, 2024).

However, there are also mixed opinions among educators regarding this digital transformation. Some may face challenges in adapting quickly to ongoing technological changes. A lack of training or adequate understanding of technology usage may be a major barrier to implementing digital tools in their teaching (Bali et al., 2021; Kats Gold et al., 2021). Some teachers may also be concerned about the social and moral implications of technology use in Islamic educational settings, such as the negative influence of content inconsistent with religious values.

CONCLUSION

This study reveals several important lessons related to digital transformation in Islamic education management at MAN 1 Banyuwangi Increasing Efficiency The implementation of digital technology has increased efficiency in administrative and teaching management, reduced manual workload and enabled faster access to information.

Improved Accessibility Digital technology enables easier and broader access to learning materials for both students and teachers, thus supporting a more flexible learning process. Teacher Capacity Building Technology training for teachers expands their skills in using digital tools to improve teaching methods and interactions with students. Enhanced Collaboration Digital platforms facilitate collaboration between various Islamic boarding schools (pesantren) and madrasahs (madrasahs), enabling more effective sharing of knowledge and best practices.

This article makes a significant contribution to the field of Islamic education and educational management through several aspects. Updating Perspectives presents a new perspective on how digital technology can be integrated into Islamic education, demonstrating that digital transformation is not only relevant but also crucial for improving the quality of education. By addressing these limitations, further research can provide broader and deeper insights and support more effective policymaking in advancing digital transformation in Islamic educational management.

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