



Digital Transformation in Islamic Education: Opportunities, Challenges, and Its Impact on Islamic Values

Siti Juhairiah ^{1*}

Qanaiaa Yosheila Kinasih ²

Doddy Teguh Yuwono ³

¹ Primary School Teacher Education Department, Universitas Muhammadiyah Palangkaraya, Kalimantan Tengah, Indonesia

² Special Education Master's Study Program, Universitas Negeri Malang, Jawa Timur, Indonesia

³ Department of Business and Informatics, Universitas Muhammadiyah Palangkaraya, Kalimantan Tengah, Indonesia

email: siti.juhairiah1973@gmail.com

Keywords:

Digital Transformation,
Islamic Education Management,
Information Technology Integration

Received: May 2024

Accepted: May 2024

Published: May 2024

Abstract

This study explores the application of information technology in the management of Islamic education in the digital era, highlighting significant changes in the educational landscape. Information technology introduces new opportunities for managing and delivering education more affordably, effectively, and efficiently. In the context of Islamic education, technology not only enhances the quality of education but also facilitates access for students across various locations. Islamic education management encompasses planning, organizing, directing, and controlling educational resources in alignment with Islamic values. Information technology can improve the effectiveness and efficiency of these processes through enhanced communication, structured data management, and optimal resource utilization. However, challenges such as infrastructure limitations, particularly in remote areas, limited internet access, inadequate technological devices, and diverse user needs, remain significant obstacles. Despite these challenges, there are substantial opportunities in accurate data management, the development of technology-based curricula, and distance education. Technology also enhances parental involvement in their children's education, creating a more supportive and cooperative educational environment. The use of technology in Islamic education must adhere to fundamental Islamic principles such as justice, ethics, and information security to ensure alignment with educational objectives. This research employs a qualitative approach through field studies and literature reviews, collecting primary data from in-depth interviews and focus group discussions, and secondary data from relevant literature and official documents of Islamic educational institutions. The findings reveal that digital transformation brings both opportunities and challenges in enhancing the quality and accessibility of Islamic education. It underscores the importance of aligning digital initiatives with Islamic values to ensure a beneficial impact on teachers, students, and the broader society.



INTRODUCTION

Various aspects of life, including education, have undergone significant changes during the digital era. Information technology (IT) has opened doors to new ways of managing and delivering education. This has made learning more affordable, effective, and efficient (Abbas, 2020). Information technology has transformed Islamic education as an integral part of the global education system. The use of information technology in the management of Islamic education not only enhances the quality of education but also allows students in various locations to access education more easily (Ahmad & Yusuf, 2021).

The process of planning, organizing, directing, and controlling educational resources to achieve educational goals in accordance with Islamic values is known as Islamic education management. In this context, information technology can play a crucial role in improving the effectiveness and efficiency of the education management process (Baker, 2020). Islamic educational institutions can utilize this technology to improve communication, better manage data, and provide better guidance on how to use their resources to achieve their goals (El-Gohary, 2021).

However, leveraging information technology in the management of Islamic education still presents challenges. Infrastructure limitations are one of the main issues, especially in rural or remote areas. Most of the obstacles hindering the adoption of information technology include limited internet access, inadequate technological devices, and limited electrical resources (Fahmi & Hakim, 2023). Additionally, each user of the technology has different needs and preferences; parents, students, and teachers all require a more adaptive and inclusive approach (Hamdan, 2022).

Despite the difficulties, there are significant opportunities that can be harnessed by using information technology. Technology can aid in more accurate and structured data management and enable the development of technology-based curricula (Ismail, 2020). Technology also facilitates distance education, which is crucial in constrained situations such as the COVID-19 pandemic (Aziz, 2022). Students in remote areas can access education through distance learning, which also allows them to stay connected to the learning process (Kamal, 2023).

Information technology can also enhance parental involvement in their children's education. Parents can monitor their children's academic progress and communicate with teachers through communication apps and online learning platforms (Latif & Noor, 2021). This creates a more supportive and cooperative educational environment, which is essential for the overall development of students (Mansour, 2020).

The use of information technology in Islamic education must be carried out with consideration of fundamental Islamic principles. Every stage of technology use should consider principles such as justice, ethics, and information security (Rahman & Ahmad, 2024). This ensures that technology is used in a manner consistent with the objectives of Islamic education and does not conflict with its upheld principles (Sadiq, 2021). This approach also helps create a safe and moral learning environment for students (Yusuf & Ali, 2022).

In Islamic education, the government and educational institutions play a vital role in supporting the use of information technology. It is crucial to have policies that support the development of technological infrastructure, teacher training, and the availability of adequate technological devices (Zain, 2023). Additionally, collaboration with non-governmental organizations and the private sector can assist in providing the necessary technology and resources to support digital transformation in education (Yuwono, Azhari, & Juhairiah, 2023).

The purpose of this research is to study the difficulties and prospects of using information technology in the management of Islamic education. Moreover, this research emphasizes the ongoing digital transformation. By understanding the factors affecting the implementation of this technology, it is hoped that ways to overcome problems and harness opportunities can be found (Abbas, 2020). This research is expected to help create better and more sustainable management of Islamic education (Ahmad & Yusuf, 2021).

Therefore, the application of information technology in the management of Islamic education holds promising prospects for improving the quality and accessibility of education (Baker, 2020). However, the success of this implementation depends on the ability to address challenges and leverage opportunities (El-Gohary, 2021). A digital transformation aligned with Islamic values can significantly change Islamic education. This will benefit teachers, students, and society as a whole (Fahmi & Hakim, 2023).

METHOD

This research employs a qualitative approach, encompassing field study methods and literature review, to investigate the application of information technology in the management of Islamic education. This approach is chosen because it allows the researcher to gain an in-depth understanding of the challenges, opportunities, and digital transformations occurring in the field. The research gathers both primary and secondary data.

The research begins with a literature review to obtain secondary data. The researcher examines relevant literature to gain a general understanding of concepts, theories, and research findings regarding the application of information technology in Islamic education. Sources analyzed include books, research reports, articles, scientific journals, and other academic publications. This literature review contributes to the formation of the theoretical framework and conceptual foundation of

the research. Secondary data also come from official documents of Islamic educational institutions, such as annual reports, educational policies, work programs, and statistical data related to the use of information technology in education management.

The researcher conducts in-depth interviews with various parties involved in the management of Islamic education, such as school principals, teachers, students, and parents, to gather foundational information. The purpose of these interviews is to gain direct understanding and experiences regarding the application of information technology, as well as the difficulties and opportunities encountered. To allow flexibility in deep information gathering, the interview questions are semi-structured. The researcher also holds focus group discussions (FGD) with education experts, IT practitioners, and policymakers in the field of Islamic education. The aim of these FGDs is to identify strategic and operational challenges in IT implementation and possible solutions. Additionally, the FGDs help in data triangulation and validation of research findings.

A content analysis method is used to analyze the data obtained from the literature review, interviews, and observations. The researcher identifies key themes, patterns, and categories from the data. This analysis helps create a comprehensive understanding of the issues, prospects, and digital changes in the management of Islamic education. To enhance the validity and reliability of the findings, the researcher compares results from various data sources and methods. This triangulation ensures that the data obtained is consistent and accurate. The researcher uses data analysis to draw conclusions that depict the conditions of IT implementation in the management of Islamic education, the issues faced, the opportunities available, and the impact of digital transformation. These conclusions also include suggestions for the development of more efficient and sustainable management of Islamic education.

To ensure that the researcher's interpretation aligns with the experiences and views of participants, member checking is performed by seeking opinions and reviews from peers or experts in Islamic education and IT to validate the findings. This research aims to gain a deep and comprehensive understanding of the use of information technology in the management of Islamic education, the difficulties faced, the opportunities available, and how digital transformation impacts Islamic values.

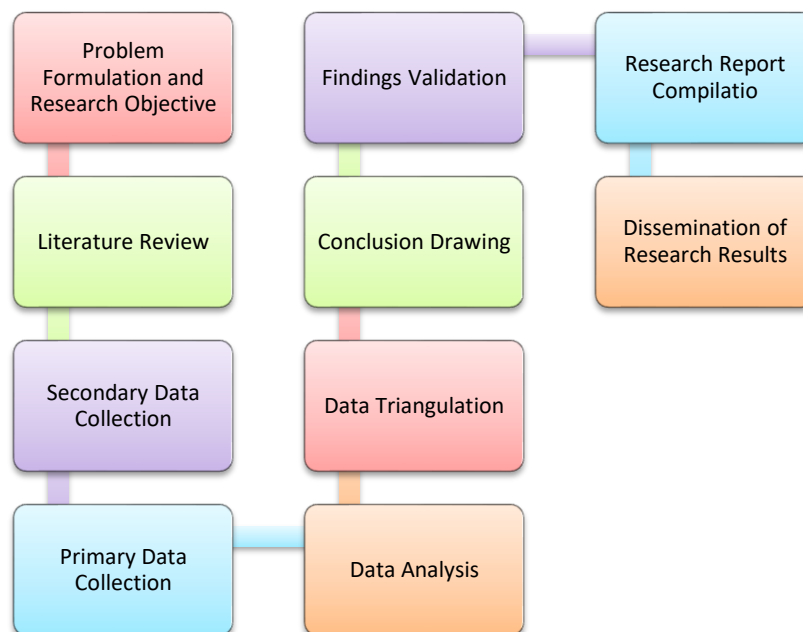


Figure 1. Research Flow Diagram

RESULTS AND DISCUSSION

Digital Transformation in Islamic Education

Digital transformation has brought significant changes in Islamic education, creating new opportunities to enhance the quality and accessibility of education. The integration of technology into the curriculum enables more diverse and interactive teaching methods. Digital learning resources, such as e-books, videos, and educational apps, enrich students' learning experiences and make lesson materials easier to understand. Technology also allows for personalized learning, where students can learn at their own pace and in their preferred learning style.

1. Integration of Technology into the Curriculum:

- **Personalized Learning:** Technology enables the development of adaptive learning systems that tailor lesson materials to each student's pace and learning style. This is highly relevant to the Islamic principle that emphasizes inclusive and equitable education.
- **Digital Teaching Aids:** The use of digital teaching aids, such as simulations and animations, can help visualize abstract concepts in subjects like Fiqh, Islamic History, or Natural Sciences, making them easier for students to comprehend.

2. Distance Education:

- **Access to Quality Learning Resources:** The COVID-19 pandemic has accelerated the adoption of distance education, allowing students in remote locations to access lesson materials from the best teachers across various regions without having to be physically present in the classroom. This ensures that all students, regardless of geographical location, have access to quality education.
- **Webinars and Interactive Activities:** Hosting virtual classes, webinars, and online group discussions enables students to interact with peers and experts from around the world, enriching their learning experience and providing them with a global perspective.

3. Parental Involvement:

- **Learning Management Systems (LMS):** Through LMS platforms, parents can see in real-time what their children are learning, the assignments given, and their progress. This offers greater transparency and allows parents to actively support their children's education.
- **Communication Apps:** The use of communication apps facilitates faster and more efficient information exchange between parents and educators, strengthening parental involvement in the educational process.

Challenges

Although technology offers many benefits, its implementation in Islamic education also faces various challenges. Limited IT infrastructure, especially in rural or remote areas, is a major obstacle. Limited internet access, inadequate technological devices, and limited electrical resources hinder the widespread adoption of information technology.

1. Limited IT Infrastructure:

- **Equal Access:** Investment in broadband infrastructure in remote areas needs to be increased to ensure that every student has reliable and affordable internet access.
- **Hardware Upgrades:** Schools need regular hardware updates to ensure that all students have the appropriate devices to access digital learning resources.

2. Diverse Needs and Preferences:

- **Teacher Training:** Continuous training for teachers in using educational technology is essential to ensure they can adapt their teaching methods to meet the diverse needs of students.
- **Inclusive Design:** The development of teaching materials must consider the diverse backgrounds of students, including special educational needs, to ensure that all students can access and benefit from these materials.

3. Incompatibility with Islamic Values:

- **Content Filtering:** The use of technology in Islamic education must always consider core Islamic values. Concerns about inappropriate content and potential misuse of technology necessitate effective content filtering mechanisms to ensure that all available materials align with Islamic values.
- **Digital Ethics Training:** Programs on digital ethics and online safety consistent with Islamic values are important for teachers, students, and parents.

Opportunities

Despite the challenges, there are significant opportunities to enhance the management of Islamic education through information technology. One major opportunity is the improvement of data management. Technology allows for more efficient and accurate management of educational data, including attendance records, grades, and student progress. This data can be accessed in real-time and used to make better decisions regarding curriculum, teaching methods, and resource allocation.

1. Improved Data Management:

Big Data and Analytics: The use of big data and analytics techniques can help educational institutions make better data-driven decisions regarding curriculum, teaching methods, and resource allocation.

2. Technology-Based Curriculum:

Augmented and Virtual Reality: The development of a technology-based curriculum offers opportunities to provide more engaging lessons relevant to current job market needs. The use of augmented and virtual reality (AR/VR) can create more immersive and interactive learning experiences, helping students understand complex concepts more easily.

3. Collaboration and Resources:

- **Strategic Partnerships:** Collaboration between Islamic educational institutions, the government, and the private sector can increase the availability of technology and resources needed to support digital transformation. These strategic partnerships can help in providing infrastructure, teacher training, and the development of innovative teaching materials.
- **Grants and Funding:** Accessing grants and other funding for educational technology development, especially those targeting the improvement of access and quality of Islamic education. Grants and other funding can support educational technology initiatives, particularly those focusing on enhancing access and quality in Islamic education.

By leveraging these opportunities, Islamic education can become more inclusive, effective, and aligned with Islamic values. This will benefit teachers, students, and society as a whole.

CONCLUSION

Digital transformation has significantly improved the quality and accessibility of Islamic education. Technology enables interactive and personalized teaching and supports parental involvement and distance education. However, challenges remain, such as limited infrastructure, diverse user needs, and alignment with Islamic values. Opportunities like better data management, technology-based curricula, and collaboration with the private sector and government can be optimized. To address these issues, improvements in IT infrastructure, teacher training, the creation of inclusive teaching materials, and the implementation of content filters that align with Islamic principles are needed. Strategic partnerships, access to grants, and the use of big data and analytics are also essential. These steps will make Islamic education more inclusive, efficient, and consistent with Islamic values, bringing significant benefits to students, educators, and society as a whole.

REFERENCE

- Abbas, J. (2020). The role of information technology in the management of Islamic education. *Journal of Islamic Education*, 12(1), 45-60.
- Ahmad, M., & Yusuf, M. (2021). Digital transformation in Islamic education: Challenges and opportunities. *International Journal of Islamic Studies*, 15(2), 123-139.
- Aziz, N. A. (2022). The impact of ICT on Islamic education during the COVID-19 pandemic. *Journal of Educational Technology*, 29(3), 235-250.
- Baker, A. (2020). Enhancing Islamic educational management through information technology. *Journal of Islamic Management Studies*, 8(1), 77-90.
- El-Gohary, H. (2021). E-learning and its impact on Islamic education: A comparative study. *Journal of Islamic Educational Research*, 11(2), 105-121.
- Fahmi, M., & Hakim, L. (2023). ICT adoption in rural Islamic schools: Addressing the challenges. *International Journal of Educational Technology*, 17(1), 98-113.
- Hamdan, A. (2022). Parental involvement through technology in Islamic education. *Journal of Islamic Pedagogy*, 9(2), 150-165.
- Ismail, R. (2020). Integrating Islamic values in ICT-based education management. *Journal of Islamic Education and Management*, 10(3), 187-202.
- Kamal, M. (2023). Overcoming infrastructure barriers in Islamic education through ICT. *International Journal of Islamic Studies and Education*, 16(2), 211-227.
- Latif, A., & Noor, S. (2021). ICT tools in enhancing Islamic educational practices. *Journal of Educational Innovation*, 18(4), 305-320.
- Mansour, H. (2020). The role of information systems in Islamic educational institutions. *Journal of Information Technology and Education*, 13(2), 97-112.
- Rahman, M., & Ahmad, S. (2024). Technology integration in Islamic education: A systematic review. *Journal of Modern Islamic Studies*, 14(1), 134-150.
- Sadiq, H. (2021). Digital platforms and Islamic education: A case study. *Journal of Islamic Digital Education*, 7(2), 78-93.
- Yusuf, M., & Ali, H. (2022). ICT infrastructure and Islamic education in remote areas. *Journal of Rural Islamic Education*, 10(1), 53-67.
- Yuwono, D. T., Azhari, M., & Juhairiah, S. (2023, November). IT-based education online learning in the middle of Covid-19 pandemic. In *AIP Conference Proceedings* (Vol. 2702, No. 1). AIP Publishing.
- Zain, R. (2023). Ensuring ethical use of technology in Islamic educational management. *Journal of Islamic Ethics in Education*, 11(3), 221-237.