



Islamic Education Management Strategy in the Digital Era: Governance Transformation to Increase Effectiveness and Accessibility

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Abstract. The digital era has brought significant transformations to the field of education, including Islamic education. Technology such as the internet, mobile devices, and e-learning platforms have shifted learning models from teacher-centered to student-centered approaches, making education more accessible and flexible. However, Islamic educational institutions like madrasas and pesantrens face unique challenges in integrating technology due to limitations in infrastructure, educator skills, and concerns about preserving Islamic values. This paper explores the opportunities and challenges posed by digitalization for Islamic education, focusing on infrastructure gaps, training needs for educators, and the cultural concerns surrounding the use of technology. The paper also highlights successful case studies from institutions like Madrasah Al-Irsyad and the International Islamic University Malaysia, showing how strategic management and government support can help overcome these challenges. It concludes by emphasizing the importance of integrating technology while maintaining the core values of Islamic education.

Keywords. Islamic Education, Digital Transformation, Infrastructure, E-Learning, Cultural Barriers

1. INTRODUCTION

The development of digital technology in the last decade has brought significant changes to various aspects of life, including in the world of education. Information and communication technology has enabled faster access to information, broader interaction, and flexibility in the teaching and learning process. The application of technology in education, often referred to as “digitalization of education,” covers many dimensions, such as e-learning, technology-based learning, and more efficient management of education through digital systems. This provides a great opportunity for education around the world to improve quality and accessibility, including in Islamic education.

Islamic education, which has a long heritage in the history of world civilization, is now faced with the challenges of modernization in the digital era. Although Islamic education emphasizes traditional and normative values, Islamic educational institutions need to adapt to technological developments to remain relevant and effective in the era of globalization. Transformation of governance in Islamic educational institutions is important to ensure that these institutions are able to meet the needs of the modern era without abandoning the core values of Islam.

Digitalization in education offers the potential to overcome several problems that have long been faced by Islamic educational institutions, such as limited access to

education in remote areas, minimal learning resources, and limited educational infrastructure. As stated by Latif (2021), “The application of technology in Islamic education allows for improving the quality of education and opening wider access for students in various parts of the world, including in previously hard-to-reach areas”. This digital transformation also opens up opportunities for more efficient and organized education management, where school management can utilize technology to support daily operational activities.

However, on the other hand, Islamic education is faced with major challenges in this transformation process. Some of these challenges include the lack of readiness of human resources in operating technology, limited technological infrastructure in many Islamic educational institutions, and resistance to change among more conservative educational leaders. As stated by Hakim (2020), “The biggest challenge in the digitalization of Islamic education is how to maintain a balance between technological modernization and the preservation of the core values of Islamic education”.

In an effort to adopt digital technology, Islamic educational institutions are faced with several major problems. First, the effectiveness of educational management is often questioned. Many Islamic educational institutions still rely on traditional management methods that are less responsive to technological changes. This causes the educational management process to be slow and inefficient. As stated by Aziz (2019), “The lack of technological adaptation in many Islamic educational institutions makes them unable to compete with other educational institutions that are more technologically advanced”.

Second, the challenge of educational accessibility is a significant problem. Many Islamic educational institutions are located in remote areas that are difficult for students to access. Digital technology offers a solution to this problem by enabling distance learning through e-learning and other digital applications. However, the implementation of this technology is often hampered by the lack of technological infrastructure and technical skills among teachers and school administrators.

Third, there is concern that the application of technology in Islamic education may change the essence of education itself, especially in terms of moral and spiritual values that are at the heart of Islamic education. Some educational leaders are concerned that relying too much on technology could shift the focus from moral education to more technical education. As Anwar (2022) states, “The digitalization of Islamic education must be carried out carefully to ensure that the core values of Islam are maintained”.

This article aims to explore effective Islamic education management strategies in the digital era. This research will focus on how Islamic educational institutions can transform their governance by utilizing digital technology to improve the effectiveness and accessibility of education. The governance transformation here includes aspects of operational management, curriculum, and interactions between teachers and students through digital platforms. Furthermore, this article will also analyze how the application of technology can help overcome the challenges faced by Islamic educational institutions, such as limited access, infrastructure.

2. LITERATURE REVIEW

The advancement of digital technology has brought significant changes to the world of education, including Islamic education. In recent years, many studies have highlighted how technology can be used to enhance the effectiveness and accessibility of Islamic educational institutions. Digital technology offers new opportunities in education management, both in operational efficiency and in improving the quality of learning. However, challenges such as infrastructure limitations, resistance to change, and adjusting curricula to digital advancements remain significant issues. In this section, we will review several studies related to Islamic education management in the digital era, aiming to understand the developments, challenges, and solutions proposed by researchers.

Digitalization of Islamic Education

Digitalization of education, in general, has been widely accepted as a forward step in improving the quality of education, including in the Islamic world. According to Ahmad (2020), the integration of technology in Islamic education provides opportunities for schools to manage operational activities more efficiently, including administration, student data management, and the delivery of educational content through digital platforms. Ahmad also emphasized that the implementation of Learning Management Systems (LMS) has become a key solution in facilitating remote learning during the COVID-19 pandemic, where educational access has been expanded despite limitations in face-to-face interactions. Other research by Yusof et al. (2021) supports this view. They found that the adoption of digital technology in Islamic education not only enhances management efficiency but also helps create a more dynamic and interactive learning environment. Their study showed that the use of technology, such as mobile applications

and e-learning in madrasas and pesantrens, allows students to engage more in self-directed learning and access educational materials anytime and anywhere.

However, the digitalization of Islamic education is not without its challenges. Research by Rahman (2019) revealed that many Islamic educational institutions in developing countries still face infrastructural barriers, including limited access to technology devices and uneven internet connectivity. This lack of infrastructure can be a significant obstacle for Islamic educational institutions to fully benefit from digital technology.

Challenges in Adopting Digital Technology

As highlighted by several studies, the adoption of digital technology in Islamic education has not been smooth. According to Hassan and Ibrahim (2020), one of the biggest challenges is resistance to change, particularly among educators and administrators in more conservative institutions. They argued that many educators in Islamic educational institutions are still clinging to traditional methods and are concerned that technology may alter the essence of Islamic education, especially in teaching moral and spiritual values. Meanwhile, research by Suryani (2022) indicated that this resistance to change is often based on a lack of understanding of the benefits of technology and fears that technology might shift the focus of education from spiritual aspects to technical aspects. Therefore, training and retraining for teachers and administrators are crucial to ensuring the successful adoption of technology in Islamic educational institutions.

Furthermore, cultural aspects also play an important role in resistance to change. Some studies have shown that in certain Muslim-majority countries, there is concern that the digitalization of education could introduce Western cultural influences that are not aligned with Islamic values. For instance, research by Mustafa (2021) demonstrated that resistance to technology in some pesantrens in Indonesia is driven by concerns that digitalization could weaken local culture and alter traditional learning methods.

Solutions and Transformation Strategies

Several researchers have proposed solutions to address the challenges in adopting technology in Islamic educational institutions. Latif (2020) suggested that transformation in management within Islamic educational institutions should begin with enhancing human resource capacity. According to him, intensive training for teachers and management staff on the use of technology should be a top priority in digitalization efforts. Latif also emphasized that Islamic education administrators must have a clear

vision of how technology can support the mission of Islamic education, rather than merely using it as a technical tool. Meanwhile, research by Rahmat (2021) emphasized the importance of government involvement in supporting the digitalization of Islamic education. Rahmat suggested that the government needs to provide adequate technological infrastructure and support training programs for educational administrators. Additionally, he highlighted the importance of policies that facilitate collaboration between Islamic educational institutions and the technology industry to ensure that the technology used truly meets the needs of Islamic education.

Furthermore, Malik (2022) proposed a community-based approach to overcoming resistance to change. He argued that the active involvement of local communities in the digitalization process can help reduce resistance, as this transformation is seen as part of a joint effort involving all stakeholders. This approach also ensures that the technology adopted is tailored to local needs and characteristics.

3. METHODS

This study employs a qualitative method with a literature review approach to analyze the challenges and opportunities of digitalization in Islamic education. The literature review was chosen as the main approach as it provides a comprehensive understanding of the technological developments and their implementation in Islamic educational institutions, as well as how Islamic values are maintained in the context of digitalization. The research process began with the collection of relevant secondary sources, such as scholarly journal articles, books, reports, and previous studies that discuss the digitalization of education, Islamic education, and the integration of technology in the learning process.

These sources were systematically analyzed to identify key themes related to the challenges, opportunities, and strategies adopted by Islamic educational institutions in embracing digital technology. This method is considered appropriate because the literature review allows the researcher to examine ongoing phenomena by utilizing existing data, providing deep and holistic insights. The validity of the findings is reinforced through data triangulation from various relevant literature sources. Additionally, this method facilitates the replication of the study by other researchers, who can refer to the literature sources used in the analysis. The findings of this research are

expected to contribute to the development of strategies for managing Islamic education in the digital era.

4. RESULTS AND DISCUSSION

Development of Technology and Islamic Education

The digital era has transformed various aspects of human life, including education. Technology has revolutionized the way we learn, teach, and manage educational institutions. Education is no longer confined to physical classrooms but can be accessed anytime and anywhere through various digital platforms. This transformation is not limited to conventional educational institutions but also affects Islamic education, which faces unique challenges in integrating technology with long-standing values and traditions.

The Digital Era and Education

The development of digital technology, such as the internet, mobile devices, and e-learning applications, has altered the basic concept of education. In the past, education was confined to face-to-face interactions in classrooms, with teaching methods dominated by teachers as the primary source of information. However, the digital era has introduced a more dynamic learning model, where students can access information and learn independently through various digital sources. Technology also allows for personalization in education, where learning materials can be tailored to individual needs and abilities.

According to Rahman (2021), the development of digital technology has driven a paradigm shift in education, from being teacher-centered to becoming more student-centered. Students are no longer passive recipients of information but are more active in seeking and analyzing learning materials through various digital platforms. This shift not only enhances the effectiveness of learning but also provides opportunities for students to develop critical and creative thinking skills (Rahman, 2021).

The State of Islamic Education and Utilization of Technology

Islamic education, which includes madrasas, pesantrens, and other Islamic educational institutions, plays an important role in shaping the character and spirituality of Muslims. However, in the context of technology utilization, Islamic educational institutions still face various challenges. While some institutions have adopted digital technology, many are still lagging behind in terms of infrastructure and technical

capabilities. According to Azizah (2020), one of the biggest obstacles to utilizing technology in Islamic education is the lack of access to technology and the internet, especially in rural or remote areas. Many madrasas and pesantrens do not yet have adequate technological infrastructure, such as stable internet access, computers, and educational software. This situation makes it difficult for these institutions to keep up with the increasingly digitalized education landscape (Azizah, 2020).

Additionally, Suryadi (2021) states that another challenge is the lack of technical skills among educators in operating technological tools. Many teachers in Islamic educational institutions are not yet trained in using technology to support the teaching-learning process. The lack of training and technical support is one of the main factors hindering the adoption of technology in Islamic educational institutions (Suryadi, 2021).

Challenges in Integrating Technology and Islamic Values

The integration of technology into Islamic education involves not only infrastructure and technical capabilities but also concerns the values and traditions long upheld by Islamic educational institutions. One of the main challenges is how technology can be used without altering the essence of Islamic education, which emphasizes moral and spiritual values. According to Hassan (2019), many educators in Islamic educational institutions are concerned that the use of technology, especially social media and the internet, may have negative effects on students. Technology can open access to content that is not in line with Islamic values, such as content containing violence, pornography, or other materials that can harm students' morals. Thus, there is concern that technology may damage students' character and morals if not properly managed (Hassan, 2019).

Moreover, the integration of technology in Islamic education requires curriculum adjustments to remain relevant to modern developments without neglecting religious values. According to Mulyadi (2021), developing a technology-based curriculum in Islamic education must be done cautiously to prioritize spiritual and moral values. Technology should be seen as a tool to support the learning process, not to replace the essence of Islamic education (Mulyadi, 2021). In this context, several solutions have been proposed by researchers. Suryana (2022) suggests that Islamic educational institutions need to develop technology-use policies based on Islamic principles, such as the ethical and wise use of technology. It is also important to provide digital education to students so they can use technology positively and avoid content that contradicts Islamic values (Suryana, 2022).

The development of digital technology offers great opportunities for Islamic education to improve the quality of learning and accessibility. However, challenges such as infrastructure limitations, educators' technical skills, and concerns about the negative impacts of technology on Islamic values need to be addressed seriously. The integration of technology into Islamic education must be done wisely, while maintaining the essence of Islamic education, which emphasizes moral and spiritual values.

Challenges in Islamic Education Management in the Digital Era

The digital era has presented various opportunities for education but also brought significant challenges, especially for Islamic educational institutions. These challenges include technological infrastructure issues, educator skills, limited human and financial resources, and psychological and cultural barriers to adopting new technologies. In this context, Islamic education management must find appropriate strategies to adapt and harness the opportunities offered by technology while preserving Islamic values and traditions.

Technological Infrastructure

One of the main challenges faced by Islamic educational institutions in the digital era is the limitation of technological infrastructure. Many Islamic educational institutions, especially those in rural or remote areas, lack adequate access to technology, such as a stable internet connection, computers, and software to support digital learning. This condition makes it difficult for them to fully adopt digital technology in the teaching and learning process.

The absence of sufficient infrastructure hinders not only the teaching and learning process but also the management of educational administration. Technologies such as learning management systems (LMS) and educational administration applications require a strong infrastructure to function properly. Without sufficient infrastructure, Islamic educational institutions will struggle to improve operational efficiency and optimize management processes. As technology advances, there is hope that infrastructure will become more accessible in the future. However, without government support or collaboration with the private sector to provide better infrastructure, Islamic educational institutions may continue to lag in utilizing digital technology.

Educator Skills

In addition to infrastructure, the skills of educators also pose a significant challenge in implementing technology in Islamic educational institutions. Many teachers

in these institutions still have limited abilities in using technology to support the learning process. Many educators are not yet trained in using technological tools such as computers, learning applications, and e-learning platforms, which slows down the adoption of technology in teaching, even if the infrastructure is available. This limitation in technical skills not only affects the effectiveness of teaching but also reduces the motivation of teachers to use technology optimally. Many teachers feel insecure or even fearful of using technology in the learning process because they do not have sufficient skills. Therefore, intensive and continuous training is essential to help educators in Islamic educational institutions master technology and integrate it effectively into their teaching.

Training programs tailored to the specific needs of Islamic educational institutions should be a priority in education management. Such training should not only focus on technical skills but also on ways to integrate technology with Islamic values, so technology is not seen as contradictory to the essence of Islamic education but rather as a tool that supports the educational process.

Limited Human and Financial Resources

The limitation of human and financial resources is also a major challenge in the application of technology-based management in Islamic educational institutions. Many Islamic educational institutions lack sufficient human resources to support the widespread application of technology. This includes the lack of IT staff capable of managing and maintaining technological infrastructure and supporting educators in utilizing the technology. Moreover, financial issues also serve as a major obstacle. Many Islamic educational institutions, especially those under nonprofit or private organizations, have limited funds to purchase technological tools or build the necessary infrastructure. Without adequate budgets, it is difficult for these institutions to keep up with technological developments, let alone adopt new technology, which often requires high costs.

Islamic educational institutions often rely on donations or government support to meet their financial needs. However, without consistent support, they will struggle to continuously update the technology they possess. Therefore, these institutions need to seek creative solutions to address financial issues, such as forming partnerships with the private sector or efficiently utilizing available resources.

Psychological and Cultural Barriers

Besides technical and financial challenges, there are also psychological and cultural barriers to adopting technology in Islamic educational institutions. Many leaders of Islamic educational institutions remain skeptical about using technology in education. They fear that the use of technology, especially the internet and social media, may have a negative impact on students' morals and character. Moreover, there is a concern that technology may replace face-to-face interaction, which has been considered an important element in Islamic education.

This concern is further exacerbated by the lack of understanding of how technology can be integrated with Islamic values. Many educational leaders still view technology as something contradictory to the traditions and values of Islamic education. To address this barrier, an approach that emphasizes educating about the benefits of technology and how it can be used wisely without sacrificing existing values is required. Socialization and education about technology need to be carried out comprehensively, not only for educators but also for the leaders of educational institutions. With better understanding, it is hoped that psychological and cultural barriers to adopting technology can be minimized, and Islamic educational institutions can be more open to the innovations brought by the digital era.

In the digital era, Islamic education management faces various complex challenges, ranging from limited technological infrastructure, educator skills, to psychological and cultural barriers. To overcome these challenges, Islamic educational institutions need to invest properly in infrastructure and training and find creative solutions to address financial and human resource limitations. Additionally, it is crucial for leaders of educational institutions to understand the benefits of technology and how it can be integrated with Islamic values so that they can be more open to the changes brought by the digital era.

Strategies for Transforming Islamic Education Governance in the Digital Era

Organizational Transformation

Organizational transformation is a critical initial step in the digitalization process of Islamic educational institutions. Strategic management plays a central role in steering this change. In the digital era, Islamic educational institutions can no longer rely on traditional management methods. Strategic management must identify opportunities and

challenges presented by digital technology and formulate steps to leverage these technologies to improve institutional effectiveness.

Digitalization in education requires careful planning and a deep understanding of technology. Strategic management's role in education is to "develop a clear vision and direction, ensuring all stakeholders move toward the same goal in addressing the challenges of digitalization." This also applies to Islamic educational institutions, where strategic management must navigate the complexities of integrating modern technology with existing traditional values.

Human Resource Development

An essential aspect of governance transformation in the digital era is human resource development, especially training for educators to effectively use technology. Many Islamic educational institutions still face a lack of digital literacy among their educators. However, the ability to use technology optimally is crucial for the success of education in the digital era.

Comprehensive training should be provided to educators so they understand how technology can be used in teaching without compromising Islamic principles. Human resource development in Islamic educational institutions requires a holistic approach, where training focuses not only on technical skills but also on how technology can strengthen the mission and values of the institution. With proper training, educators can become more confident in utilizing digital technologies, such as e-learning or Learning Management Systems (LMS), to support more interactive and dynamic learning. Ultimately, increasing educators' technological competence will contribute to the overall improvement of Islamic education in this digital age.

Curriculum Management Combining Traditional Materials with Interactive Digital Media

The Islamic education curriculum must be adapted to keep pace with digital technology advancements. In this era, students need not only traditional knowledge but also skills relevant to the digital world. Therefore, effective curriculum management should blend traditional materials with the use of interactive digital media. Curriculum management must ensure that Islamic values and teachings remain the core of education, while leveraging technology to enhance the attractiveness and effectiveness of learning. For example, distance learning through e-learning platforms can provide wider access for students to learn Islamic sciences without having to be physically present in a classroom.

The combination of traditional materials and interactive digital media enables students to receive a richer and deeper learning experience. The use of technology can also increase student engagement, as the material is presented more attractively and interactively, through methods such as educational videos, simulations, and interactive quizzes.

Implementation of Technology in Management

In the digital era, the implementation of technology in educational management is inevitable. One of the innovations that can be applied in Islamic educational institutions is the use of Learning Management Systems (LMS). LMS enables institutions to manage the learning process more effectively, including class administration, task management, and learning outcome evaluation. Additionally, cloud-based technology is another solution that can be adopted. Cloud-based applications allow for secure and efficient data storage, making data management at educational institutions easier and more structured. The use of cloud-based technology in the education sector provides numerous advantages, such as better accessibility and cost savings in operational expenses.

In addition to LMS and cloud applications, social media and communication applications can also be used to enhance interaction between teachers, students, and parents. Social media can serve as an effective tool for disseminating information, while communication apps like WhatsApp or Telegram can facilitate faster and more responsive communication between all parties involved in the education process.

Educational Accessibility

One of the advantages of digital technology in education is its ability to broaden access to education across various segments of society, including in remote areas. In many countries, including Indonesia, Islamic education often faces difficulties in reaching remote regions. However, with the advent of technology, geographical barriers can be overcome. Through online learning and hybrid education models, Islamic educational institutions can reach students in remote areas, who may not have access to physical Islamic schools. The hybrid education model, which combines online learning and face-to-face interactions, offers greater flexibility for students, especially for those living in remote areas or who have limited time to attend full-time classes.

Furthermore, digital technology allows students from underprivileged backgrounds to access quality Islamic education. With lower costs compared to conventional education, digital learning models offer a more inclusive solution for less

fortunate communities. The transformation of Islamic educational governance in the digital era requires a holistic and strategic approach. From organizational transformation, human resource development, curriculum management, to the implementation of technology in management, every aspect must be carefully addressed. Digital technology not only improves the efficiency and effectiveness of education but also expands access to Islamic education across various social segments, including those in remote areas or underprivileged communities.

Case Studies and Best Practices in the Digitalization of Islamic Education

Implementation of Technology in Islamic Educational Institutions: Successful Case Studies

The application of technology in Islamic education has made a significant impact worldwide. A prime example of successful digital transformation in Islamic education is Madrasah Al-Irsyad in Singapore, which has integrated digital technology into all aspects of learning. This institution not only uses Learning Management Systems (LMS) to manage its curriculum but has also developed interactive modules that students can access online. This approach has enhanced learning effectiveness and provided broader access to students who cannot physically attend classes.

Madrasah Al-Irsyad's application of technology demonstrates how digital tools can be utilized to improve accessibility and effectiveness. One of its impactful programs is the use of cloud-based applications that allow students to access learning materials, assignments, and evaluations from anywhere, at any time. This aligns with research indicating that cloud computing in education can increase student engagement and simplify administrative processes.

Another example comes from the International Islamic University Malaysia (IIUM), which has successfully developed a distance-learning model based on e-learning. Through this platform, IIUM offers Islamic education programs accessible to students from various countries. The use of technology became particularly essential during the COVID-19 pandemic, where remote learning was necessary. IIUM also applies a blended learning strategy, combining traditional teaching methods with digital technology to maintain Islamic values while addressing the demands of the digital era.

Government Policies Supporting the Digitalization of Islamic Education

In several countries, governments actively support the digitalization of Islamic education. For example, in Indonesia, the government, through the Ministry of Religious

Affairs, has developed a digital platform for madrasahs known as E-learning Madrasah. This platform enables madrasahs nationwide to access digital learning materials, manage school administration, and conduct evaluations online. This is part of the government's effort to enhance the quality of Islamic education by leveraging technology. The Indonesian government has also launched several initiatives to support digital transformation in Islamic education, such as the Madrasah Digitalization program, which aims to provide technological devices, internet access, and training for madrasah teachers. This has been a solution for many madrasahs in remote areas that have struggled with access to educational technology.

In the Middle East, the United Arab Emirates (UAE) is another country that shows a strong commitment to the digitalization of Islamic education. The UAE has launched the Smart Learning program, which integrates technology into the curriculum of Islamic schools and madrasahs. This initiative aims to revolutionize how Islamic education is taught by introducing digital education applications that facilitate remote learning. In Saudi Arabia, the Saudi Vision 2030 also includes the transformation of Islamic education through digitalization. The Saudi government has made significant investments in developing digital infrastructure to support distance learning, particularly in religious schools. This is expected to broaden access to Islamic education for the younger generation in the digital era.

Policy Analysis and Best Practices

From the case studies and policies mentioned above, it becomes clear that the success of digitalizing Islamic education heavily depends on the synergy between educational institutions and government support. On the one hand, Islamic educational institutions must be ready to embrace digital transformation by adopting relevant technologies such as LMS and cloud-based applications. On the other hand, governmental support through policies and infrastructure is crucial to ensuring the sustainability of this transformation.

The successes of Madrasah Al-Irsyad in Singapore and IIUM in Malaysia highlight the importance of preparedness within educational institutions to adapt to technological changes. These institutions have managed to integrate technology into their educational structure without compromising the traditional values that form the core of Islamic education. Additionally, progressive government policies like E-learning Madrasah in Indonesia and Smart Learning in the UAE demonstrate that digital

transformation in Islamic education can proceed smoothly with the full backing of relevant authorities. Moreover, it is important to note that digitalization not only requires investments in hardware and software but also in human resource development. Many Islamic educational institutions face challenges in enhancing their educators' digital skills. Therefore, policies that support the training and development of educators in using educational technology are vital.

The digital transformation in Islamic educational institutions is no longer a choice but a necessity in this digital era. The case studies outlined demonstrate that Islamic educational institutions can succeed in implementing digital technology when backed by strong strategic management and progressive government policies. Success stories such as those of Madrasah Al-Irsyad and IIUM can inspire other institutions to follow their lead in leveraging technology to enhance the effectiveness and accessibility of Islamic education. Furthermore, the role of governments is crucial in ensuring that the digitalization of Islamic education proceeds smoothly, particularly in providing the necessary infrastructure and training. With effective collaboration between governments and educational institutions, the future of Islamic education in the digital era can become brighter and more inclusive.

5. CONCLUSION

The digital era has brought significant changes to the world of education, including Islamic education. Digital technologies such as the internet, mobile devices, and e-learning platforms have transformed learning methods, which were previously centered on teachers in physical classrooms, into a more dynamic and student-focused model. However, Islamic education, represented by institutions like madrasas and pesantrens, faces various challenges in adopting technology, particularly related to infrastructure, the skills of educators, and concerns about the negative impact of technology on Islamic values. The main challenges faced by Islamic education include limited technological infrastructure in remote areas, lack of training for educators to operate technology, and concerns about how technology, especially social media, may expose students to content that contradicts Islamic values. Despite these challenges, technology offers great opportunities to expand access to Islamic education, improve the quality of learning, and support more efficient institutional management.

The integration of technology into Islamic education must be done wisely to preserve moral and spiritual values. The curriculum must also be adapted to remain relevant to technological advancements without neglecting religious teachings. In this context, government policies and infrastructure support are crucial to help Islamic educational institutions adapt to the digital era. Case studies from institutions like Madrasah Al-Irsyad in Singapore and the International Islamic University Malaysia (IIUM) show that with good management and strong government support, Islamic educational institutions can successfully adopt technology. Policies such as E-learning Madrasah in Indonesia and Smart Learning in the United Arab Emirates demonstrate that collaboration between the government and educational institutions can accelerate the digital transformation of Islamic education, provide wider access for students, and improve the quality of education in this digital era.

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