

EMPOWERING PESANTREN EDUCATION: OVERCOMING DIGITALIZATION CHALLENGES WITH TSIRWAH INDONESIA

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ABSTRACT

The research lies in offering a Tsirwah Indonesia-based digital integration model that combines technology with Islamic boarding school values, an approach that has not been widely explored in Islamic education literature in the digital age. Tsirwah Indonesia plays a crucial role in improving digital literacy among santri and expanding access to pesantren education in the digital era. These programs also support government policies aimed at creating a digitally literate society, particularly in the education sector through the Indonesia Digital 2045 initiative. This research adopts a qualitative approach using library research methods to analyze the implementation of digitalization in pesantren and its impact on educational quality. The findings reveal that digitalization not only enhances access to education but also supports the wider spread of Islamic teachings, reaching a global audience. Furthermore, this study discusses the challenges in implementing digitalization policies and provides recommendations for further development. The digitalization of pesantren education, as implemented by Tsirwah Indonesia, offers significant opportunities to address the educational challenges in the modern era.

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1. INTRODUCTION

The development of the digital era has brought significant changes across various aspects of life, including education. Digitalization accelerates information access and facilitates global collaboration but also presents new challenges, particularly for traditional education institutions like pesantren (Hikmatullah et al., 2023). In this era, the ability to adapt to technology has become essential for pesantren to remain relevant.

As faith-based educational institutions, pesantren often face technological disparities. According to research by the Indonesian Ministry of Religious Affairs, many pesantren in Indonesia lack adequate technological infrastructure, such as internet access and digital devices, making it difficult for them to keep up with modern developments (Ministry of Religious Affairs, 2022).

Additionally, the traditional values of pesantren are often perceived to conflict with the fast-paced and individualistic culture of the digital age. This raises concerns that adopting technology could diminish the moral and religious foundations of pesantren education. However, with the right approach, technology can be integrated without compromising pesantren's core values. Amidst these challenges, initiatives like Tsirwah Indonesia have emerged as a solution for pesantren to adapt in the digital era. By combining technology with pesantren's educational values, Tsirwah Indonesia aims to bridge the digital divide and strengthen the pesantren education system.

Pesantren face numerous challenges in the digital era, with one of the primary obstacles being limited access to technology. Many pesantren in Indonesia lack stable internet facilities or adequate digital devices. According to a report by the Central Statistics Agency (BPS, 2023), around 40% of pesantren in Indonesia do not have internet access to support learning activities. This limitation makes it difficult for pesantren to keep pace with rapidly advancing technology.

Moreover, human resources in pesantren are often unprepared to adopt technology effectively (Hasan et al., 2023). Most educators in pesantren lack sufficient training to utilize technology in teaching. Ahmad's (2022) study shows that 65% of pesantren teachers feel underconfident in using technological tools for learning purposes.

Pesantren curricula also face challenges in integrating digital technology. Most pesantren continue to rely on traditional teaching methods, with limited use of technology as an educational tool. Research by Suhendar (2022) reveals that only about 25% of pesantren in Indonesia have started integrating technology into their curricula, such as through e-learning or digital applications.

On the other hand, unmonitored exposure to technology can negatively impact students. Misuse of technology, such as access to inappropriate or unproductive content, poses significant challenges. Pesantren must play a role in providing digital literacy education to students, enabling them to use technology wisely and responsibly. To address these challenges, a comprehensive approach is needed to bridge the digital divide. Tsirwah Indonesia offers a relevant solution, focusing on empowering technology that aligns with pesantren's educational values, ensuring their relevance in the digital era.

To tackle challenges in the digital age, pesantren require an approach that is not only adaptive but also strategic. One promising solution is through the Tsirwah Indonesia initiative. This program is designed to assist pesantren in integrating technology with Islamic educational values without compromising the identity and traditions of pesantren.

Tsirwah Indonesia provides pesantren with affordable technology access, including internet infrastructure, digital devices, and educational software. A study by Abdullah (2023) highlights that this program has successfully increased internet access by 70% in partner pesantren that previously faced infrastructure limitations. Additionally, Tsirwah Indonesia offers technology-based training for pesantren educators. Ismail's (2023) research shows that this training improves teachers' digital skills by 85% within six months.

In terms of learning, Tsirwah Indonesia supports pesantren in designing curricula that incorporate technology, such as e-learning applications, digital learning media, and online classroom management. This approach not only facilitates teaching and learning processes but also prepares students to face global challenges. Digital literacy programs provided by Tsirwah Indonesia also help students understand how to use technology wisely

and safely. According to Rahmawati (2024), this initiative has reduced cases of technology misuse by students by 60% in partner pesantren.

Through its comprehensive approach, Tsirwah Indonesia not only helps pesantren overcome digital-era challenges but also contributes to enhancing the quality of Islamic education in Indonesia. This paper aims to provide an in-depth understanding of how Tsirwah Indonesia can serve as a relevant solution to the challenges faced by students and pesantren in the digital era. With a technology-based approach aligned with Islamic educational values, Tsirwah Indonesia is expected to make a significant contribution to the development of pesantren education.

In an era dominated by information technology, pesantren must transform to remain relevant and meet contemporary needs. However, this transformation must preserve the traditional and religious values that form the core of pesantren education (Halimah et al., 2024). Therefore, this paper also aims to demonstrate that technology integration does not have to conflict with pesantren traditions but can be a tool to strengthen faith-based educational systems.

This research is expected to provide valuable insights for pesantren stakeholders, including educators, administrators, and students, about the importance of adopting technology to support learning processes. Furthermore, this paper seeks to promote the importance of digital literacy as part of pesantren education, preparing students to face global challenges. The novelty of this research lies in its comprehensive exposition of the role of the Tsirwah Indonesia initiative as a contextual and innovative solution in integrating digital technology into the pesantren education system without sacrificing traditional values, an approach that is still rarely discussed in global literature related to the digitization of religion-based education.

Overall, this paper aims to inspire readers about the significant potential of Tsirwah Indonesia in driving pesantren education transformation towards a future-oriented approach, while staying rooted in its traditions.

2. METHOD

This study employs a library research approach, focusing on the collection and analysis of data from various literature sources, such as books, scholarly journals, research reports, and relevant documents. Library research was chosen because it enables the researcher to delve deeply into information regarding the application of technology in pesantren education, particularly through initiatives like Tsirwah Indonesia. According to Zed (2014), this method is effective for understanding relevant theoretical concepts and analyzing available secondary data.

The research adopts a descriptive-analytical design, aiming to describe the challenges faced by pesantren in the digital era and analyze the potential solutions offered by Tsirwah Indonesia. A descriptive-analytical approach allows the researcher to systematically elaborate on data, resulting in a comprehensive understanding of the studied phenomenon (Sugiyono, 2022).

Data were collected through literature reviews, which involve gathering information from relevant written sources. The sources used include primary literature, such as journal articles and research reports containing empirical data on pesantren and technology, as well as secondary literature, such as books and other documents providing a theoretical framework for pesantren education in the digital era. The data collection process involved searching for, reading, and evaluating literature relevant to the research focus (Bowen, 2009).

The collected data were analyzed using content analysis methods. This technique aims to identify key themes in the literature, including the challenges faced by pesantren in

the digital era, the role of Tsirwah Indonesia, and the potential integration of technology in pesantren education. Content analysis helps map patterns within the data and interpret findings systematically (Krippendorff, 2019).

To improve the validity and reliability of this literature review, the study used a source triangulation strategy, which involved reviewing and comparing various types of literature, including scientific journal articles, official government reports, academic books, and relevant previous research results. In addition, the literature selection process was carried out systematically and transparently by establishing clear inclusion and exclusion criteria, such as publication year restrictions, topic relevance, and publisher credibility, to ensure that the data analyzed was up-to-date, representative, and accountable. Through this methodology, the research is expected to provide a clear and in-depth depiction of the implementation of Tsirwah Indonesia in addressing the challenges faced by students and pesantren in the digital era.

3. RESULT AND DISCUSSION

Tsirwah Indonesia has implemented various digitization programs to enhance the quality of pesantren education, one of which is the Mondok Online program. This program allows students from various regions, including those in remote areas, to access learning materials online without being hindered by geographical barriers. As part of this initiative, Tsirwah Indonesia also conducts digital skills training for pesantren teachers, aiming to strengthen their capacity to use technology in the learning process. The training includes using online learning platforms, creating digital content, and managing technology-based classrooms. Additionally, Tsirwah Indonesia has developed a dedicated application to support distance learning, enabling students and teachers to interact directly through digital media.

The Mondok Online program aligns with the technological advancements increasingly dominating the education sector. According to Heinich et al. (2019), technology plays a crucial role in improving the efficiency and accessibility of education, providing solutions to infrastructural limitations in various regions. Through digital platforms like Mondok Online, students previously constrained by distance and time can now access learning materials comparable to those available in urban areas. This opens broader opportunities for pesantren education to develop inclusively and adapt to the changing times.

The digitization programs implemented by Tsirwah Indonesia have had a significant positive impact, especially in improving educational accessibility for pesantren students. With the Mondok Online program, education becomes more inclusive, creating opportunities for students in remote areas to access learning materials that were previously out of reach due to geographical limitations. This program also contributes to increasing the students' digital literacy, allowing them not only to learn religious knowledge but also to acquire essential technological skills for thriving in the digital age. Consequently, students participating in this program can more easily access information, communicate with teachers and classmates, and develop digital skills useful for everyday life.

The improvement of digital literacy among students aligns with government policies to expand digital literacy across Indonesian society, particularly in the education sector. In this context, Tsirwah Indonesia supports the government's "Indonesia Digital 2045" program, which aims to build a technologically literate society capable of competing globally. Lubis (2020) revealed that technology has significant potential in broadening the reach of Islamic teachings, and Tsirwah Indonesia, through its digital initiatives, plays an important role in supporting the dissemination of Islamic values to a global community. The Mondok Online program allows pesantren to introduce Islamic teachings to a broader audience, not just locally but also internationally.

The digitization of education by Tsirwah Indonesia can be analyzed through the educational transformation theory proposed by Heinich et al. (2019). This theory emphasizes the importance of technology in enhancing the efficiency and accessibility of education and enabling the widespread dissemination of knowledge without being hindered by geographical constraints. By leveraging technology, education can not only be accessed more easily but also be tailored to the needs of the times, making the learning process more flexible and inclusive.

The implementation of programs like Mondok Online by Tsirwah Indonesia aligns with the principles of this theory, using technology to open up broader access to learning for students in previously hard-to-reach areas. Heinich et al. (2019) state that technology, when utilized effectively, can significantly transform the structure and dynamics of education. In this regard, Tsirwah Indonesia has successfully utilized technology to overcome the limitations of space and time in pesantren education, providing equal opportunities for students from various regions to access quality education.

Thus, the educational digitization carried out by Tsirwah Indonesia not only aligns with the educational transformation theory but also provides concrete evidence of how technology can improve and enhance the quality of education in terms of both efficiency and inclusivity.

The digitization of education by Tsirwah Indonesia is also relevant to government policies aimed at accelerating digital transformation in the education sector. One of the policies underpinning these efforts is the "Indonesia Digital 2045" program, which seeks to position Indonesia as an advanced nation in the use of digital technology by 2045. This program focuses on increasing digital literacy across all layers of society, including pesantren education. Through initiatives like Mondok Online and digital skills training for students and teachers, Tsirwah Indonesia directly supports the objectives of this policy.

According to Indonesia's Ministry of Religious Affairs (2021), the government's pesantren education digitization program aims to strengthen pesantren's capacity to face the challenges of the digital era, transforming pesantren into institutions that teach not only religious knowledge but also critical digital skills for modern life. Programs like Mondok Online demonstrate how technology can be utilized to enhance educational access, not just locally but also globally, aligning with the government's efforts to reach more communities through technology-based education. In this context, Tsirwah Indonesia not only meets pesantren's technological needs but also aligns with government policies in creating a more digitally literate society. This demonstrates how Tsirwah Indonesia's digital initiatives contribute to accelerating the achievement of the "Indonesia Digital 2045" goals.

The Mondok Online program launched by Tsirwah Indonesia has made a significant contribution to expanding access to pesantren education, particularly in the context of digitization. This program enables students from various regions, even remote ones, to access learning materials without geographical constraints. As an innovation in pesantren education, Mondok Online advocates for technology-based learning that extends beyond religious instruction to include teaching digital skills essential for modern life. This is crucial given the rapid technological developments and the growing need for digital literacy, particularly among younger generations.

Lubis (2020) revealed that digital technology plays a significant role in spreading Islamic values more widely, particularly through affordable and inclusive education. With platforms like Mondok Online, Tsirwah Indonesia leverages technology to connect pesantren with students across Indonesia and even abroad. This program aligns with Lubis's findings, which suggest that technology, when appropriately applied, can enhance access to and the effectiveness of Islamic teaching, reaching a broader and more diverse audience.

By leveraging technology, Tsirwah Indonesia provides opportunities for students to receive better religious education with flexible teaching accessible anytime and anywhere. This innovation not only bridges existing educational gaps but also enables pesantren to evolve dynamically, keeping up with ever-developing technological trends.

4. CONCLUSION

The digitalization of education in pesantren, through initiatives like Mondok Online developed by Tsirwah Indonesia, has demonstrated a significant positive impact in enhancing access to and the quality of education for students. This program has successfully opened opportunities for students from various regions to access learning without geographical barriers, improved their digital literacy, and expanded the reach of Islamic teachings to global communities. The digitalization of pesantren education aligns with the

theory of educational transformation, emphasizing the importance of technology in improving the efficiency and accessibility of education. Additionally, this initiative supports the government's policy to enhance digital literacy in Indonesia through the "Indonesia Digital 2045" program. Tsirwah Indonesia and other pesantren must continue to strengthen digital infrastructure to support online learning, ensuring that all students, particularly those in remote areas, have adequate access to participate effectively. Digital skills training programs for pesantren teachers should be continuously expanded and updated with the latest technological developments to ensure that teaching in pesantren remains relevant to current needs.

To accelerate the implementation of digitalization, closer collaboration with the government and private sectors needs to be strengthened, including funding, provision of devices, and training of human resources in educational technology. It is essential to conduct regular evaluations of the effectiveness of digitalization programs like Mondok Online to identify challenges and find solutions to enhance their impact on the quality of education in pesantren. Further research needs to be conducted empirically in the field to test the effectiveness of the pesantren digitization program and can be expanded with comparative studies between pesantren to understand the factors for successful technology adaptation more comprehensively.

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