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The Relevance of Islamic Educational Thoughts of K.H. Ahmad Dahlan and K.H. Hasyim Asy'ari in the 4.0 Era

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Abstract. This article explores the integration of Islamic educational principles from K.H. Ahmad Dahlan and K.H. Hasyim Asy'ari into the context of the 4.0 Era, characterized by rapid technological advancements and digital transformation. It examines how these traditional educational concepts can be adapted to address the challenges and opportunities of modern education. By focusing on the principles advocated by these influential figures—such as the fusion of religious and general knowledge, character development, and the preservation of Islamic scholarly traditions—the study highlights their relevance and application in contemporary settings. The findings suggest that combining these principles with modern educational demands can provide a balanced framework that supports both technological proficiency and ethical grounding. This approach not only prepares students for the digital age but also ensures they remain connected to their cultural and spiritual heritage.

Keywords. Islamic Education, K.H. Ahmad Dahlan, K.H. Hasyim Asy'ari, Era 4.0, Educational Integration

1. **INTRODUCTION**

The Fourth Industrial Revolution has brought about significant changes in various aspects of life, including education. This era is characterized by the use of digital technology, artificial intelligence, and the Internet of Things (IoT), which have transformed how we learn, work, and interact (Schwab, 2016). In the context of education, these changes require a transformation of curricula and teaching approaches that can prepare students to face the complex and dynamic challenges of the future (Kovacs, 2019). This situation raises questions about the relevance of traditional educational concepts, including the Islamic educational thoughts promoted by K.H. Ahmad Dahlan and K.H. Hasyim Asy'ari.

K.H. Ahmad Dahlan and K.H. Hasyim Asy'ari are two reformers of Islamic education in Indonesia with unique and relevant ideas in the context of contemporary education. Ahmad Dahlan, as the founder of Muhammadiyah, emphasized the importance of integrating religious and general knowledge in the education system. He believed that education should equip students with knowledge relevant to the needs of the times, both in terms of religion and general science (Bakti, 2020). Recent research suggests that Dahlan's thoughts align with the needs of education in the digital era, which demands multidisciplinary knowledge to address complex global challenges (Darmawan, 2022).

On the other hand, K.H. Hasyim Asy'ari, as the founder of Nahdlatul Ulama, emphasized the importance of pesantren-based education that prioritizes ethics and Islamic scholarly traditions. Pesantren (Islamic boarding schools) are considered institutions that not only teach religious knowledge but also shape the character and morals of students (Munir, 2021). In the context of the Fourth Industrial Revolution, character education becomes increasingly relevant.

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As argued by Neimann and Martens (2020), education that prioritizes moral and ethical values plays a crucial role in shaping a responsible and sustainable work ethic in the digital.

These two perspectives demonstrate how Islamic educational values can adapt to contemporary needs. For example, K.H. Ahmad Dahlan's emphasis on integrating religious and general knowledge is highly relevant to the development of 21st-century competencies such as digital literacy, creativity, and collaboration (Kim & Park, 2019). Meanwhile, K.H. Hasyim Asy'ari's focus on strengthening character also finds its relevance in modern education, which increasingly emphasizes the importance of soft skills in facing the challenges of the Fourth Industrial Revolution (Ali et al., 2020).

Furthermore, the relevance of K.H. Ahmad Dahlan and K.H. Hasyim Asy'ari's educational thoughts in the context of the Fourth Industrial Revolution can be seen from the perspective of developing adaptive and responsive learning models. Ahmad Dahlan's thought, which emphasizes the importance of holistic education encompassing intellectual and spiritual aspects, aligns with the competency-based learning approach increasingly implemented in various countries (Goyal et al., 2021). Meanwhile, Hasyim Asy'ari's approach, which stresses the importance of value-based education, can serve as a crucial foundation in developing technology-based education that still prioritizes ethical aspects and social responsibility (Rahman & Arif, 2022).

In facing the challenges of the Fourth Industrial Revolution Era, the educational concepts promoted by K.H. Ahmad Dahlan and K.H. Hasyim Asy'ari offer significant relevance. These two figures not only provide solutions to problems emerging in traditional education but also offer a framework for facing this era of uncertainty. Dahlan's thoughts on the importance of general science and technology, if combined with Hasyim Asy'ari's focus on character education, can shape students who are not only intellectually smart but also morally and ethically strong (Yusof et al., 2021).

Based on this background, this article aims to explore the relevance of K.H. Ahmad Dahlan and K.H. Hasyim Asy'ari's Islamic educational thoughts in facing the challenges of the Fourth Industrial Revolution. Using the library research method, this study will examine how these two figures offer concepts that can be adapted and applied in the context of modern education, as well as assess the contribution and relevance of their thoughts in developing Islamic education that is responsive to changing times.

2. LITERATURE REVIEW

In the context of the Fourth Industrial Revolution, the educational thoughts espoused by K.H. Ahmad Dahlan and K.H. Hasyim Asy'ari remain relevant in addressing contemporary challenges. Both figures offer educational concepts rooted in Islamic values, which continue to be significant in the face of rapidly changing times (Munir, 2021). Their focus on integrating religious and general education, as well as character education, has garnered significant attention in contemporary educational research.

Integration of Religious and General Education

K.H. Ahmad Dahlan is known for his ideas that promote the integration of religious education with general knowledge. This idea is relevant to the needs of the Fourth Industrial Revolution era, which demands a multidisciplinary approach to learning. Darmawan (2022) argues that modern education needs to combine various fields of knowledge to develop a holistic understanding and competencies among learners. Dahlan's approach reflects this need by emphasizing a balanced curriculum between religious values and scientific knowledge, preparing students to navigate both the spiritual and material worlds effectively.

Recent studies also show the benefits of this integrative approach in modern education. According to Goyal et al. (2021), competency-based education models that prioritize interdisciplinary learning have proven effective in fostering creativity, critical thinking, and collaboration among students. This view supports Ahmad Dahlan's educational reforms, which sought to harmonize Islamic teachings with secular sciences, thus promoting a comprehensive form of education that meets the demands of the modern era.

Character Education and Moral Development

Character education is a central theme in the educational philosophy of K.H. Hasyim Asy'ari, particularly in the context of Islamic boarding schools or pesantren. Hasyim Asy'ari's emphasis on moral and ethical education aligns with contemporary educational needs that integrate value education into modern curricula. Neimann and Martens (2020) highlight the importance of ethical education in the digital age, where rapid technological advances pose ethical dilemmas requiring a strong moral compass.

The focus on character development is crucial in today's rapidly evolving society, where technological proficiency must be balanced with ethical responsibility. Rahman and Arif (2022) argue that education systems must emphasize moral foundations to ensure that technological advancements contribute to the common good rather than exacerbate social inequalities. This perspective aligns closely with Hasyim Asy'ari's educational model, which

aims to produce morally upright individuals who are prepared to face the ethical challenges of the modern world.

Adapting Islamic Educational Values to Contemporary Needs

Adapting Islamic educational values to contemporary needs requires a nuanced understanding of both traditional teachings and the modern context. Ahmad Dahlan's vision of integrating general science into religious education offers a pathway to modernizing Islamic education without losing its core values. Yusof et al. (2021) state that such integration allows for the development of a curriculum that is both spiritually enriching and practically applicable, preparing students to thrive in a rapidly changing world.

Additionally, research by Kim and Park (2019) indicates that educational reforms that embrace creativity and collaboration are essential in the digital. These reforms resonate with Ahmad Dahlan's progressive stance on education, which advocates for the inclusion of modern sciences alongside traditional Islamic studies. Such a balanced approach not only enhances students' academic competencies but also fosters a mindset that is adaptive and innovative, qualities that are indispensable in the Fourth Industrial Revolution.

Relevance of Islamic Educational Thought in the Fourth Industrial Revolution

The relevance of Islamic educational thought in the Fourth Industrial Revolution is further substantiated by its emphasis on ethics and holistic learning. Ali et al. (2020) point out that the development of 21st-century skills must be grounded in character education to produce individuals who are not only skilled but also ethically. This perspective mirrors the educational philosophies of both Ahmad Dahlan and Hasyim Asy'ari, who advocate for the integration of ethical teachings with practical knowledge.

By incorporating these Islamic educational principles, modern education systems can create a framework that balances technological advancement with ethical responsibility, ensuring that students are prepared to contribute positively to society. This integration of traditional values with contemporary skills sets a foundation for an education system that is responsive to the complexities of the modern world while remaining rooted in ethical and moral principles (Rahman & Arif, 2022). The fusion of traditional values with contemporary skills, therefore, sets a foundation for an education system that is adaptive and responsive to the complexities of the modern world while remaining deeply rooted in enduring ethical and moral principles. This balanced educational model empowers students to navigate the challenges of the 21st century with integrity, resilience, and a commitment to the common good.

3. METHODS

This study utilizes a library research method to explore the relevance of the Islamic education thoughts of K.H. Ahmad Dahlan and K.H. Hasyim Asy'ari in the context of the Fourth Industrial Revolution. This method is chosen because it allows the researcher to gather and analyze existing literature without the need to collect new empirical data. The first step involves identifying and collecting literature from academic databases such as Google Scholar and ProQuest using relevant keywords like "K.H. Ahmad Dahlan" and "K.H. Hasyim Asy'ari". The collected sources are then critically evaluated for their relevance and quality.

Subsequently, the collected data is analyzed and synthesized to identify key themes and relationships between the Islamic education concepts of the two figures. Findings are interpreted by comparing various perspectives to assess the application of these principles in the modern context. The library research method is selected due to its suitability for theoretical and conceptual research, providing in-depth insights into the topic under study. This approach ensures the validity and reliability of findings by using academically verified sources and allows other researchers to replicate the study.

4. RESULTS AND DISCUSSION

Islamic Education Concept of K.H. Ahmad Dahlan

1. Brief Profile of K.H. Ahmad Dahlan and His Contributions to Islamic Education Reform

K.H. Ahmad Dahlan, born in 1868 in Yogyakarta, was a prominent Islamic scholar and the founder of Muhammadiyah, an organization that played a crucial role in reforming Islamic education in Indonesia. His education in Mecca and the strong tradition of the pesantren in Indonesia shaped his progressive views on education (Nasution, 2019). In his efforts to reform Islamic education, K.H. Ahmad Dahlan emphasized the importance of integrating religious and secular sciences, which at the time was considered a major innovation. He believed that Muslims should not be confined to religious knowledge alone but must also understand and master secular sciences as a part of worship (Mujiburrahman, 2021).

2. Principles of Education Advocated by K.H. Ahmad Dahlan

K.H. Ahmad Dahlan introduced several innovative educational principles for his time. First, he emphasized the importance of integrating religious and secular sciences. According to him, Islamic education should include knowledge of both religious subjects and general sciences such as mathematics, science, and foreign languages (Abdullah, 2018). This approach aimed to produce a generation that not only understood religious teachings but could also

contribute to the development of modern society. This is in line with modern educational perspectives that emphasize holistic education, where religious and secular knowledge complement each other (Rahman & Arifin, 2020).

Second, K.H. Ahmad Dahlan emphasized character education as a core element of the curriculum. He believed that education should produce individuals with noble character, honesty, justice, and high social responsibility. This character education was combined with teaching universal Islamic values, such as honesty, tolerance, and empathy (Setiawan, 2020). This concept was then implemented through active learning approaches, where students were not merely passive recipients of information but were actively engaged in the learning process through discussions, group work, and social projects (Fauzi, 2019).

Third, the active learning approach advocated by K.H. Ahmad Dahlan emphasized the importance of participatory learning methods. He proposed an educational method that prioritized students' active involvement in the learning process. This was aimed at enhancing students' critical thinking and creativity, and avoiding learning that only focused on memorization (Amiruddin, 2021). Recent studies have shown that such an approach is effective in improving student learning outcomes, especially in the context of religious education, which has traditionally been more theoretical (Wahyuni, 2022).

3. Examples of the Application of Educational Concepts in Muhammadiyah Institutions and Their Impact on Education in Indonesia

The implementation of K.H. Ahmad Dahlan's educational principles is concretely realized through Muhammadiyah educational institutions. To date, Muhammadiyah has established thousands of schools and universities throughout Indonesia that combine religious and general curricula (Suryadi, 2020). These institutions not only teach religious knowledge but also modern sciences such as science and technology, in line with K.H. Ahmad Dahlan's vision to create a progressive Muslim community that can compete globally. The impact of implementing K.H. Ahmad Dahlan's educational concepts in Muhammadiyah institutions has been significant in improving the quality of education in Indonesia. According to a study by Supriyadi (2021), Muhammadiyah schools often excel in various educational indicators, such as national exam results and student participation in science Olympiads. This demonstrates that the integrative approach taught by K.H. Ahmad Dahlan can produce graduates who excel both in religious and secular sciences.

Furthermore, Muhammadiyah education has successfully produced graduates with strong character and high social awareness. A study by Hasanah (2022) found that graduates from Muhammadiyah schools have higher levels of social participation compared to other schools.

They are actively involved in community activities and have a high awareness of the importance of social contribution, which is a direct reflection of the character education principles taught by K.H. Ahmad Dahlan.

The success of this educational concept is not only limited to the national scale but has also inspired Islamic education globally. Many other Muslim countries are interested in studying the educational model implemented by Muhammadiyah because of its success in combining religious teachings with modern sciences, a major challenge in contemporary Islamic education (Ali, 2023). This interest is particularly significant in countries looking to modernize their educational systems while maintaining a strong religious foundation. Muhammadiyah's success shows that it is possible to develop an educational framework that prepares students to thrive in a competitive global environment while nurturing their faith and ethical character. As a result, educators and policymakers in these countries are studying Muhammadiyah's model to replicate its strategies and adapt them to their local contexts, thereby promoting a more inclusive and comprehensive form of Islamic education that is better suited to the demands of the 21st century.

The Concept of Islamic Education by K.H. Hasyim Asy'ari

1. A Brief Profile of K.H. Hasyim Asy'ari and His Contributions to Islamic Educational Reform

To further elaborate, K.H. Hasyim Asy'ari's influence on Islamic education in Indonesia extended beyond his role as a scholar and educator; he was a visionary who recognized the importance of integrating traditional Islamic teachings with the realities of the modern world. The establishment of Tebuireng Pesantren in Jombang was not merely the founding of another Islamic school; it represented a new approach to education that sought to balance religious instruction with practical and contemporary knowledge. Tebuireng Pesantren became a hub for producing scholars who were not only well-versed in Islamic sciences but also equipped to address social and cultural challenges in Indonesian society (Fadli, 2019).

His leadership within Nahdlatul Ulama also marked a significant step in redefining the role of pesantren in Indonesian education. By promoting the modernization of these traditional schools, K.H. Hasyim Asy'ari aimed to preserve their core values while ensuring their relevance in a rapidly changing world. This approach included introducing subjects like mathematics, science, and languages alongside traditional Islamic disciplines, thereby preparing students to engage effectively with broader societal developments (Arifin, 2021). His efforts helped establish a model for Islamic education that is flexible, adaptive, and capable of

addressing both spiritual and worldly needs, making it a cornerstone of education in Indonesia and inspiring similar initiatives in other Muslim-majority countries.

2. The Educational Principles Advocated by K.H. Hasyim Asy'ari**

K.H. Hasyim Asy'ari emphasized the importance of pesantren-based education as the primary foundation for developing a Muslim's character and knowledge. According to him, pesantren are institutions that not only provide religious education but also shape the morals and character of students by instilling religious values in everyday life (Fauzan, 2020). Pesantren serve as comprehensive learning centers where students study various Islamic disciplines such as tafsir (Quranic exegesis), hadith, fiqh (Islamic jurisprudence), and tasawuf (Islamic mysticism), while also developing practical skills needed to contribute to society (Fathurrahman, 2019).

Furthermore, Hasyim Asy'ari stressed the importance of moral development in education. For him, education is not merely a transfer of knowledge but also the formation of noble character. In his view, the ultimate goal of education is to form *insan kamil*, a person who is perfect in knowledge and deeds and possesses good character (Hidayatullah, 2022). He also emphasized the need to preserve the tradition of Islamic scholarship, particularly in maintaining sanad (chains of transmission) in knowledge, which is a hallmark of traditional Islamic education (Qomar, 2021). This is considered crucial to maintain the purity and authenticity of Islamic teachings amidst the challenges of modernization and globalization.

Hasyim Asy'ari also recognized the importance of bringing education closer to everyday life, where learning is not only conducted through books but also through direct experience and social practice. This is reflected in the concept of "amar ma'ruf nahi munkar" (enjoining good and forbidding wrong) implemented in the pesantren curriculum to develop the critical thinking skills and social awareness of students (Muhaimin, 2021). In addition, Hasyim Asy'ari's emphasis on practical experience and social engagement as core elements of education demonstrates his forward-thinking approach to learning. By incorporating the concept of "amar ma'ruf nahi munkar" into the pesantren curriculum, he ensured that students were not only grounded in religious knowledge but also trained to apply these teachings in real-world contexts. This approach fosters a holistic learning environment where students actively participate in community life, enhancing their critical thinking and problem-solving skills while nurturing a sense of social responsibility and ethical conduct. This blend of theoretical knowledge and practical application helps prepare students to become agents of positive change in their communities, bridging the gap between academic learning and social practice.

3. Examples of the Application of These Educational Concepts in Nahdlatul Ulama Institutions and Their Impact on Education in Indonesia

The application of the educational concepts advocated by K.H. Hasyim Asy'ari is evident in institutions under the auspices of Nahdlatul Ulama, particularly in NU pesantren. In these pesantren, the education model based on traditional values is implemented through a curriculum that emphasizes the teaching of *kitab kuning* (classical Islamic texts), which are the main references in traditional Islamic studies (Rosyid, 2020). These texts not only teach Islamic laws but also cover various aspects of daily life, resulting in graduates who understand Islamic teachings comprehensively and practically (Zainuddin, 2019).

Moreover, education in NU pesantren also emphasizes the importance of building strong character by instilling values such as honesty, responsibility, and exemplary behavior. According to research conducted by Sholihah (2022), graduates of NU pesantren tend to have high moral integrity and demonstrate a strong commitment to Islamic values in their lives. This aligns with Hasyim Asy'ari's view that emphasizes the importance of noble character as the primary goal of education.

Educational institutions under NU have also continuously adapted to changing times. They have started integrating modern curricula while maintaining the traditional approach of pesantren. This creates a balance between the tradition of Islamic scholarship and the need for modern skills such as information and communication technology (Wahyuni, 2021). According to a study by Supriyadi (2022), this educational model has helped improve the quality of education in pesantren and made it relevant in today's global context. The impact of implementing these educational concepts is not limited to the national level but also influences the global Islamic community. Many other Muslim-majority countries are interested in studying the NU pesantren model because of its success in combining traditional teachings with contemporary skills, which is a significant challenge in modern Islamic education (Hamid, 2023).

The educational concepts developed by K.H. Hasyim Asy'ari through Nahdlatul Ulama have also had a broad social impact. NU pesantren have not only become centers for religious learning but also for community empowerment. Many pesantren have developed entrepreneurship and skills training programs to help local communities improve their standard of living (Ismail, 2020). This demonstrates that NU pesantren focus not only on spiritual aspects but also play a significant social role in community development.

Integration of Islamic Educational Concepts with the Demands of the 4.0 Era

1. The Need for Relevance in the Era of 4.0: A Contextual Overview

The Fourth Industrial Revolution, or Era 4.0, marked by rapid technological advancements and digital transformation, has posed significant challenges and opportunities for the education sector. In this context, the integration of Islamic educational concepts developed by scholars like K.H. Ahmad Dahlan and K.H. Hasyim Asy'ari becomes crucial to create an education system that remains relevant and effective. Their educational philosophies, which combine religious values with practical knowledge and critical thinking, provide a valuable framework to address the complexities of modern education while preserving ethical and moral integrity (Hasanah, 2022).

The concept of education in the Era 4.0 is not limited to technological proficiency but also includes character development, adaptability, and ethical reasoning. The integration of Islamic educational values offers a unique approach to balancing these elements, ensuring that students are not only prepared for the demands of the digital age but also remain grounded in their cultural and spiritual identities (Nasution & Wahyuni, 2020).

2. Adapting Traditional Islamic Educational Principles for Modern Challenges

The educational principles of K.H. Ahmad Dahlan, which emphasize the integration of religious and secular knowledge, and K.H. Hasyim Asy'ari, which highlight the importance of moral education and community engagement, are particularly relevant in the current era. Their approach aligns with contemporary educational models that advocate for holistic learning, where cognitive, emotional, and social competencies are developed simultaneously (Fathurrahman, 2021).

For example, in Muhammadiyah schools, the concept of "gerakan dakwah kultural" (cultural preaching movement) has been adapted to include the use of digital platforms for spreading knowledge and ethical values. This method not only maintains the religious foundation of the curriculum but also introduces students to modern tools and technologies, preparing them for a globalized world (Sulaiman, 2021). Similarly, in Nahdlatul Ulama institutions, there is a concerted effort to blend traditional curricula with modern sciences, ensuring that students can engage with contemporary knowledge without compromising their religious commitments (Hidayat, 2022).

Moreover, the principle of "amar ma'ruf nahi munkar" (enjoining good and forbidding wrong), which is central to the educational model of K.H. Hasyim Asy'ari, has been interpreted in contemporary settings to promote digital literacy and ethical online behavior. In an age where misinformation and digital manipulation are rampant, this principle serves as a moral

compass, guiding students to use technology responsibly and for the greater good (Qomar, 2021).

3. Technological Integration and the Preservation of Islamic Values

In the Era 4.0, technology has become an indispensable tool in education, necessitating its integration into Islamic educational institutions. Both Muhammadiyah and Nahdlatul Ulama have embraced technological advancements while maintaining their commitment to Islamic values. For instance, many Muhammadiyah schools have adopted e-learning platforms and digital resources to enhance teaching and learning processes, incorporating them into a framework that still prioritizes ethical and moral development (Pratama & Kurniawan, 2021).

Nahdlatul Ulama's pesantren have also started to use digital tools to facilitate learning, such as online classes and digital libraries that make classical Islamic texts more accessible to students (Yusuf & Rahman, 2022). However, this integration is not without challenges. There is a need for continuous teacher training and curriculum development to ensure that technology is used effectively and that it does not undermine the traditional values these institutions aim to uphold (Rahman & Widodo, 2020).

4. Ethical and Moral Education in the Digital Age

One of the critical issues in integrating Islamic educational concepts into the 4.0 era is the preservation of ethical and moral values amidst rapid technological change. The teachings of K.H. Ahmad Dahlan and K.H. Hasyim Asy'ari provide a robust framework for addressing this challenge. Their focus on character building, community service, and the application of knowledge for the common good can be adapted to contemporary contexts to guide the ethical use of technology (Fitriani & Ahmad, 2020).

For example, the emphasis on tarbiyah ruhaniyah (spiritual education) in Nahdlatul Ulama institutions can serve as a foundation for teaching students about the ethical implications of digital behavior. By incorporating discussions on digital ethics and the responsible use of technology into the curriculum, educators can help students navigate the complexities of the digital world while maintaining their moral compass (Sholihah, 2021). Furthermore, Muhammadiyah schools have incorporated programs that encourage students to engage in community-based projects that use technology for social good. This approach not only enhances technological skills but also fosters a sense of social responsibility, aligning with the principles of "amar ma'ruf nahi munkar" (Arifin & Munir, 2022).

5. Building a Future-Oriented Islamic Educational Model

To build an educational model that is both future-oriented and rooted in Islamic values, it is essential to focus on several key areas: teacher training, curriculum development, and community engagement. Educators must be equipped not only with technological skills but also with an understanding of how to integrate these tools within an Islamic framework (Sutrisno & Hakim, 2021). Curricula need to be updated regularly to incorporate new knowledge and technological advancements while maintaining a strong foundation in Islamic teachings.

Moreover, Islamic educational institutions must continue to engage with their communities to ensure that their educational models remain relevant and responsive to societal needs. By fostering partnerships with local and international organizations, they can access new resources and share best practices, thereby enhancing their capacity to provide quality education that prepares students for the challenges of the modern world (Wahyuni & Zainuddin, 2023).

6. The Relevance of Islamic Educational Concepts in the Digital Age

The integration of Islamic educational concepts into the Era 4.0 offers a unique opportunity to create an education system that balances technological advancement with ethical responsibility. By drawing on the teachings of scholars like K.H. Ahmad Dahlan and K.H. Hasyim Asy'ari, Islamic educational institutions can develop models that are not only relevant to the digital age but also deeply rooted in religious values. This approach ensures that students are prepared to navigate the complexities of the modern world while maintaining their moral and ethical integrity, ultimately contributing positively to society (Rahman & Arif, 2022).

5. CONCLUSION

This article examines the application of Islamic education principles developed by K.H. Ahmad Dahlan and K.H. Hasyim Asy'ari in the context of Era 4.0. These two figures made significant contributions to the reform of Islamic education by integrating religious knowledge with general knowledge, as well as emphasizing the importance of character education and strengthening morals. In Era 4.0, which is marked by technological advances and digital transformation, these principles remain relevant in creating an education system that is balanced between technology and ethical values. K.H. Ahmad Dahlan encourages active integration between religious knowledge and general knowledge, which has been adapted in Muhammadiyah institutions to face the demands of modern education. Meanwhile, K.H. Hasyim Asy'ari prioritizes Islamic boarding school-based education that maintains Islamic

scientific traditions and strengthens morals, and has been implemented in Nahdlatul Ulama institutions.

The integration of these concepts in Era 4.0 shows that education can accommodate technological advances without ignoring moral and ethical principles. This approach not only prepares students to face digital challenges but also ensures they remain connected to their cultural and spiritual identities. Thus, the application of Islamic educational values in a modern context offers an adaptive and relevant framework, bridging the gap between technology and noble values.

LIMITATION

This article provides an in-depth review of the integration of Islamic educational principles developed by K.H. Ahmad Dahlan and K.H. Hasyim Asy'ari in the context of the 4.0 Era. While this study aims to explore the relevance and application of these concepts, several limitations should be noted.

First, the research relies on secondary sources from existing literature, which may introduce bias or limitations in data interpretation. Dependence on published literature may restrict insights into how these principles are actually applied in practice, especially given the rapid changes in the 4.0 Era. Second, the primary focus of the article is on two major figures, K.H. Ahmad Dahlan and K.H. Hasyim Asy'ari, which may limit the breadth of perspectives on Islamic educational practices. This focus may reduce the generalizability of findings to all Islamic educational institutions in Indonesia.

Third, the implementation of Islamic educational principles in the 4.0 Era is often influenced by external factors such as government policies, technology availability, and community support. The article does not delve deeply into how these factors may impact the application and effectiveness of Islamic educational principles in different contexts. Finally, the article does not consider recent technological advancements and ongoing social changes. Further research is needed to assess the latest impacts and to understand how Islamic educational principles can continue to adapt to the dynamic changes in the 4.0 Era.

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