

# A Systematic Literature Review: Digital Leadership of Millennial Kiai in The Era of Digitalization in Islamic Boarding Schools

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## Abstract.

*The digitalization era brings significant changes in various aspects of life, including the world of pesantren (Islamic boarding schools). Millennial Kiai (Islamic leaders) play a crucial role in guiding pesantren into the digital era. This article aims to discuss digital leadership among millennial Kiai in addressing the challenges of digitalization. The research adopts a qualitative approach with a systematic literature review using the PRISMA method. The literature review process took place from February 2024 to March 2024, utilizing Google Scholar as the primary database. The research findings indicate that digital leadership among millennial Kiai entails possessing long-term vision, creativity, and the ability to lead change and confront the challenges of the digital era, along with strategies and challenges in facing them. The article concludes that digital leadership among millennial Kiai represents an integration of traditional values with digital technology in efforts to realize transformation and progress within religious institutions or communities.*

**Keywords:** Digitalization; Leadership and Millennial.

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## I. INTRODUCTION

The oldest educational institution in Indonesia is the *Pondok Pesantren* (Islamic boarding school), characterized as an Islamic educational institution that upholds religious values and implements education with traditional characteristics [1], [2]. As an educational institution, *pesantren* cannot avoid the influence of the changing times accompanied by the advancement of science and technology [3]. Therefore, *pesantren* must actively participate in and contribute to technological progress, as technological advancement is part of the broader effort to build civilization (Ghofur, 2023). A study conducted by [4] found that *pesantren* tend to accept all developments while maintaining their distinctive characteristics. This finding aligns with the theory of *pesantren* flexibility—adapting to modern changes while preserving their core identity. Hence, it is necessary to initiate breakthroughs by introducing and applying information and communication technologies in *pesantren* through appropriate methods (Arif, 2016). In facing technological advancement, the role of leadership is crucial. Leadership is defined as the ability to influence others, make decisions on what should be done, and motivate others to act accordingly [5]. Specifically, leadership has evolved into digital leadership in line with the changing management environment, which is closely related to organizational performance [6]. The leaders of *pesantren*, in responding to the progress of science and technology, need to strengthen internal capacity and realign the vision and mission of education toward global change [3]. Since education tends to progress more slowly in developing digital maturity, developing digital leadership becomes essential [7] [8]. *Pondok pesantren* are led by a *Kiai*, who serves as the central figure within the institution [9].

As the leader, the *Kiai* plays a vital and central role in *pesantren* life not only as the main pillar sustaining the educational system but also as a reflection of the values that live within the *santri* (student) community [9]. This is consistent with the characteristics of leadership behavior in boarding schools, which include being visionary, steadfast, a good listener, empathetic, credible, caring, persuasive, conceptual, responsible, calm, committed, humorous, religious, fair, patient, honest, open, and trustworthy [10]. Currently, many *pesantren* are led by millennial *Kiai*, who are considered technologically literate and familiar with the latest innovations [11]. This is supported by research showing that the millennial generation recognized for

its technological fluency and productivity drives the world of work, creativity, innovation, and influences global markets and industries [12]. Within *pesantren*, millennial *Kiai* can develop effective leadership strategies to guide their *santri* in adapting to technological developments and fostering innovation within the institution. In the *pesantren* context, digital leadership strategies among millennial *Kiai* may include various aspects such as developing effective digital marketing strategies to encourage students to adapt to technological developments and foster innovation; identifying opportunities and implementing technological solutions to advance the *pesantren*; ensuring the success of digital transformation projects; and fostering innovation to enhance efficiency, productivity, and the overall experience within the *pesantren*. This aligns with the findings of [13] which state that successful digital leaders must be visionary and customer-oriented while embracing change. However, some *pesantren* still face challenges in integrating technological advancements into their learning processes. Therefore, it is important to study in depth the digital leadership strategies of millennial *Kiai* in *pesantren* that have already adopted digitalization. By developing effective digital leadership strategies, millennial *Kiai* can guide their *santri* to engage with technology and cultivate innovation within the *pesantren*.

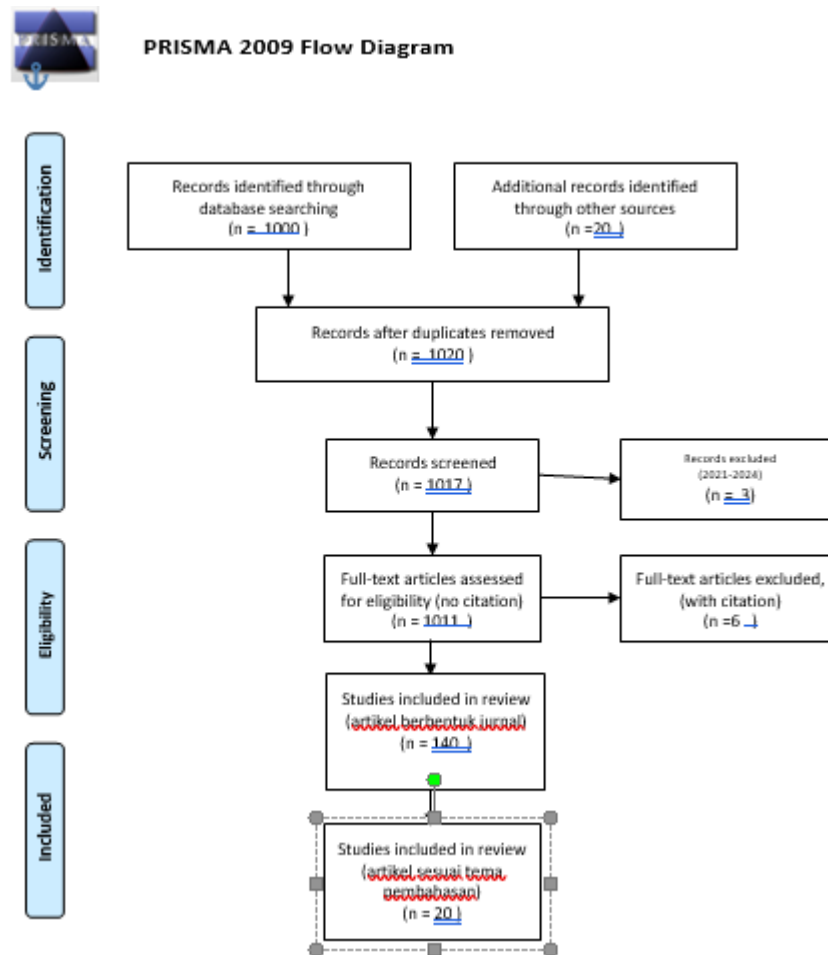
## II. METHODS

This study employs a descriptive qualitative approach. Qualitative research is a general term used to describe approaches to data collection and analysis that primarily rely on language-based data. Such data are often conceptualized as semi-structured interview transcripts between interviewers and interviewees. However, qualitative data may also take other forms, such as compilations of historical documents, completion of written narratives, or user-generated comments posted on social media (Tutelman & Webster, 2020). This research uses a qualitative approach with the systematic literature review method. The type of review adopted in this study utilizes the PRISMA method (*Preferred Reporting Items for Systematic Reviews and Meta-Analyses*), which is conducted systematically following proper research stages and protocols [14]. The database used for article searches was Google Scholar accessed through the Publish or Perish application. The rationale for using this database lies in its open-access nature and convenience for downloading articles, enabling a comprehensive understanding of educational report policies. The next step involved article searches on Google Scholar using the Publish or Perish application with the keyword “digital leadership of millennial *Kiai* in Islamic boarding schools.” The criteria for the reviewed articles included: publications from 2021 to 2024, peer-reviewed journal articles, and relevance to the research theme.

The steps in conducting the systematic review are carefully planned and structured, making this method distinct from a simple literature study. The procedure for the systematic review consists of several stages, namely:

- A. Formulating the Background and Purpose.
- B. Defining the Research Question.
- C. Searching for Relevant Literature.
- D. Establishing Selection Criteria.
- E. Conducting a Practical Screening.
- F. Applying a Quality Checklist and Procedures.
- G. Developing a Data Extraction Strategy
- H. Performing a Data Synthesis Strategy [14].

By applying the PRISMA method, researchers can ensure the quality and transparency of systematic research and quantitative data analysis, while enhancing their ability to conduct systematic engineering and produce valid and reliable data analysis. The literature review process was carried out to systematically and transparently identify published research articles, evaluate them through data extraction and analysis, and finally synthesize the results. This literature review was conducted from February 2024 to March 2024. The stages of the PRISMA method are illustrated in the following diagram.



**Fig 1.** Prisma Metode

### III. RESULT AND DISCUSSION

#### *Digital Leadership of Millennial Kiai*

Digital leadership is a leadership style that focuses on realizing digital transformation within an institution or organization [15]. This leadership model enables the digitization of the work environment and organizational culture. Fisk describes digital leaders as visionary figures, motivators (agents of change), capable of merging diverse ideas, and building relationships by creating new opportunities for collaboration, partnerships, outsourcing, and other cooperative forms [16].

In the field of education, digital leadership has a positive and significant impact on teachers' acceptance of technology and their technological self-efficacy [17]. Digital leadership also influences the effectiveness of public relations in educational institutions and directly or indirectly contributes to institutional improvement [18]. According to Pearl Zhu, digital leadership consists of five key characteristics:

- Thinking, possessing analytical skills and the ability to face challenges, market changes, and competition in the digital era.
- Creativity, leaders demonstrate creativity and innovation to formulate new ideas and implement them effectively.
- Visionary, having long-term foresight, the ability to provide direction, and orchestrate digital transformation.
- Curiosity, comprehensively utilizing ecosystems and progressing within the context of Volatility, Uncertainty, Complexity, and Ambiguity (VUCA), digital leaders must be inquisitive to continuously learn.
- Profound Leadership, leading comprehensively with deep knowledge and understanding, applying interpretive and synthetic thinking to make informed decisions Zhu, 2015.

The essential role of digital leadership can be observed through five components: visionary leadership, digital-age learning, professional excellence, systemic improvement, and digital citizenship. Research by Timan, Mustiningsih, & Imron found that these five components directly influence teacher performance and student competence in the 21st century [19]. Therefore, leaders in this digital era should possess up-to-date skills in information and communication technology. The generation capable of integrating digital change while managing institutions effectively is the millennial generation. Millennials believe in the power of technology and understand that adopting more advanced systems is the most efficient way to make better decisions [20]. Peramesti & Kusmana; and David Folarin identified several characteristics of millennial leaders, including technological literacy, mastery of social media and the internet as sources of information, and a strong drive for innovation [21] [22]. Millennials are eager to face challenges in achieving their goals [23]. Moreover, millennials prefer independence and a more flexible lifestyle. They tend to favor convenience and speed (instant results). From a positive perspective, this preference reflects practicality and efficiency; however, the downside is a lower endurance under pressure and a higher susceptibility to stress due to a fast-paced mindset.

A study by Bodenhausen & Curtis found that millennial workers favor transformational leadership, as it allows for engagement and participation in work processes [24]. Consequently, when millennials become leaders, they tend to adopt transformational leadership styles aligned with their own generational traits [25]. According to Peramesti & Kusmana, key aspects of millennial leadership include: Digital Mindset: the ability to understand and analyze technology-driven behavioral patterns and use advanced digital tools creatively. Physical meetings have evolved into digital spaces. Millennial leaders leverage technology to enhance efficiency and effectiveness in the workplace. Agility and Innovation: possessing creativity and an entrepreneurial spirit. Agile leaders can seize opportunities, create new trends, and think critically and progressively to stay ahead. Unbeatable Spirit (Resilience): maintaining perseverance and determination in managing teams, along with positive thinking and enthusiasm in facing challenges [21]. Brander, Paterson, & Chan emphasized several essential traits of millennial leaders: serving as role models, demonstrating strong responsibility, taking risks, fostering a sense of belonging and participation among subordinates, and collaborating optimally with human resources [26]. In the digital era, the *Kiai* leadership type required besides mastering digital transformation is transformational leadership, characterized by openness to feedback, readiness for change, and appreciation of team input [27].

#### ***Strategies for Digital Leadership of Millennial Kiai***

Digital leadership strategies for millennial *Kiai* in the era of digitalization require a planned and adaptive approach. The following strategies can be implemented, supported by relevant literature:

1. Digital Education and Training – Ensuring that *Kiai* and community members have a solid understanding of digital technology through education and training. This aligns with Sağbaşı & Erdoğan (2022), who emphasize leadership focused on digital transformation. The importance of training human resources in *pesantren* is supported by [28], highlighting its role in ensuring that educators remain competitive and adaptable to contemporary challenges.
2. Effective Online Communication – Utilizing social media and digital platforms to communicate effectively with the community. Pearl Zhu (2015) underscores the importance of digital communication skills in leadership Zhu, 2015.
3. Utilizing Technology for Da'wah and Education – Employing digital tools to disseminate religious and educational messages, as recommended by Peramesti & Kusmana [21].
4. Digital Administration Management – Using software and digital applications to manage institutional administration more efficiently [26].
5. Digital Collaboration and Partnerships – Establishing online partnerships with other institutions or organizations to expand the reach of da'wah and social activities [27].
6. Digital Security and Ethics – Ensuring that *Kiai* and their communities understand the importance of digital ethics and data security in online interactions (Zhu, 2015).
7. Digital Resilience – Encouraging openness to change and readiness to continually learn and adapt to technological developments, consistent with the transformational leadership model proposed by [27]

8. Leaders, particularly in education, must understand both the advantages and disadvantages of the digital world and be capable of inspiring subordinates to innovate and uphold their ideas [29]. By implementing these strategies, millennial *Kiai* can effectively manage their institutions and communities in the digital era.

#### ***Challenges of Digital Leadership of Millennial Kiai***

The digital leadership of millennial *Kiai* involves several challenges that must be addressed to navigate technological and societal changes. The main challenges include:

1. Technology Penetration – Some millennial *Kiai* may face difficulties in understanding and adopting digital technologies. They must overcome technological gaps by continuously learning and developing digital skills (Sağbaş & Erdoğan, 2022).
2. Cultural Change – Transitioning to a technology-based work culture presents a challenge. *Kiai* must lead by changing traditional mindsets toward technology-oriented practices Zhu, 2015
3. Information Management – Ensuring that information disseminated online remains accurate, authentic, and relevant. *Kiai* must ensure that shared content aligns with proper religious teachings and values (Peramesti & Kusmana, 2018).
4. Resistance to Change – Resistance may come from within the community or organization. *Kiai* need to manage this wisely by building awareness of the benefits of technological progress [26].
5. Data Security and Privacy – Protecting personal data and sensitive information is a major challenge in the digital era. *Kiai* must ensure the safety of digital systems and practices to protect the community's privacy [27].
6. Overcoming these challenges requires appropriate strategies and a commitment to continuous learning and adaptation to technological and social changes. Leaders who can effectively adopt digital technologies, foster innovation, encourage collaboration, provide timely feedback, and enhance digital competencies can create an environment that enables individuals to reach their full potential [30]. Furthermore, digital leadership demands openness, collaboration, and alignment with ethical standards—not merely technological expertise [31]. Thus, millennial *Kiai* can become effective leaders in guiding their communities toward digital transformation.

#### **IV. CONCLUSION**

Millennial *Kiai* digital leadership represents an integration of traditional values with digital technology in an effort to realize transformation and progress within religious institutions or communities. Leaders in this context must possess long-term vision, creativity, and the ability to lead change and confront the challenges of the digital era. The strategies implemented include digital education, effective online communication, the utilization of technology for da'wah and education, digital administrative management, online collaboration, as well as digital security and ethics. However, challenges such as technology penetration, cultural change, information management, resistance to change, and data security require special attention to be properly addressed. With awareness of these challenges and a commitment to continuous learning and adaptation, millennial *Kiai* can become effective leaders in guiding their communities toward the digitalization era successfully.

#### **V. ACKNOWLEDGMENTS**

The authors would like to express their gratitude to State University of Malang, especially the Faculty of Education, for their support of this project. The authors also extend their sincere appreciation to the Master's Program in Educational Management for providing the platform that made this research possible. Furthermore, heartfelt thanks are conveyed to all lecturers who have offered valuable suggestions and guidance throughout the process.

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