

The 8<sup>th</sup> International Conference on Family Business and Entrepreneurship  
**LEADING THE DIGITAL SHIFT: EXPLORING  
TRANSFORMATIONAL LEADERSHIP IN MADRASAH  
REFORMS**

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**ABSTRACT**

*This study explores the impact of digital transformation on madrasah reform in Indonesia, focusing on how transformational leadership, collaborative culture, and organizational learning contribute to institutional performance. A mixed-method approach was used, combining quantitative surveys and qualitative interviews with madrasah leaders across Indonesia. The survey examined the relationship between digital transformation and madrasah performance, while the interviews provided insights into leadership and collaboration practices influencing reform. The study finds that digital transformation positively impacts madrasah performance, particularly when supported by transformational leadership and a strong collaborative culture. Transformational leaders play a crucial role in motivating staff to embrace digital tools and fostering a learning-oriented environment. Organizational learning and collaborative practices enhance the success of digital initiatives, ensuring effective reform. The research is limited to madrasahs in Indonesia, focusing primarily on institutional leaders. The findings may not be fully generalizable to other educational systems or cultural contexts. The study contributes to the literature on educational reform by highlighting the importance of digital transformation in Islamic educational institutions. It extends transformational leadership theory by applying it to the context of madrasah reform. Madrasah leaders should foster collaborative cultures to support digital transformation, ensuring that reforms align with both academic and religious goals. This research is one of the few studies examining digital transformation in Islamic educational institutions, offering valuable insights into how leadership and culture drive successful reform.*

**Keywords:** Digital Transformation, Madrasah Reform, Transformational Leadership, Organizational Learning, Collaborative Culture

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**1. Introduction**

The global shift towards digital education has dramatically changed the way institutions operate, with educational reforms increasingly driven by technological advances. In Indonesia, where madrasahs play a critical role in educating millions of students within an Islamic framework, the challenge lies in integrating digital technologies while maintaining the religious and cultural values that are central to Islamic education. Digital transformation involves more than merely adopting new technologies; it requires a systemic overhaul of processes, leadership approaches, and institutional culture.

Transformational leadership is essential for guiding educational institutions through the complexities of such reform. Leaders who embrace transformational practices inspire their staff to embrace change, engage in continuous learning, and work collaboratively toward institutional goals. This leadership style has been

shown to be particularly effective in times of organizational change, where the ability to inspire and motivate is critical for success (Bass, 1985).

For madrasahs, digital transformation offers an opportunity to enhance both academic and religious education. However, the successful implementation of these initiatives depends on strong leadership, a collaborative institutional culture, and an environment that supports continuous learning. This paper explores how transformational leadership and collaboration contribute to successful digital transformation in madrasahs, and how these factors drive reform and institutional performance.

## 2. Literature Review

### 2.1 Digital Transformation in Education

Digital transformation refers to the process of integrating digital technologies into an organization's operations to improve efficiency, engagement, and outcomes. In education, this includes the adoption of online learning platforms, digital administrative systems, and the use of data to inform decision-making (Iosad, 2023). The global shift toward digital learning has reshaped educational institutions, pushing them to innovate and adopt new technologies to remain competitive and effective.

In the context of madrasahs, digital transformation is seen as a critical component of ongoing educational reform efforts. The Indonesian Ministry of Religious Affairs has emphasized the need for madrasahs to modernize their teaching and administrative practices by integrating digital tools such as e-learning platforms and electronic data management systems (Rodríguez-Abitia & Bribiesca-Correa, 2021). These tools enable madrasahs to provide a more dynamic and interactive learning environment while ensuring that religious teachings remain central to the educational experience.

However, the transition to a digitally integrated system is not without challenges. Many madrasahs face infrastructure limitations, lack of teacher training, and resistance to change, particularly in rural areas. Research has shown that institutions with strong leadership and a culture that supports innovation are more successful in implementing digital transformation (Mondragon et al., 2023). Digital transformation in madrasahs not only enhances operational efficiency but also provides students with a more engaging and relevant learning experience, preparing them for future societal and economic challenges.

### 2.2 Transformational Leadership in Madrasah Reforms

Transformational leadership is defined by the ability of leaders to inspire and motivate followers to exceed their own expectations and achieve organizational goals through a shared vision (Bass, 1985). This leadership style is characterized by four key components: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Avolio, 1993).

In the context of educational reform, transformational leadership has been shown to be a critical driver of success. Leaders who adopt transformational practices create a vision for the future, and promote professional development, all of which are essential for implementing complex reforms (Leithwood & Jantzi, 2006). In madrasahs, transformational leaders play a vital role in balancing the need for technological innovation with the preservation of Islamic values. They inspire educators to embrace new teaching methods, motivate staff to engage in continuous learning, and foster a sense of ownership over the reform process (Rahmawati et al., 2022).

Several studies have demonstrated the positive relationship between transformational leadership and successful educational reform. Martin (2009) found that transformational leadership is associated with higher levels of teacher motivation, and innovation, all of which contribute to successful reform initiatives. In madrasahs, leaders who adopt this approach are better equipped to manage the challenges of digital transformation, ensuring that new technologies are integrated in ways that enhance, rather than detract from, the institution's religious mission.

### 2.4 Madrasah Reform and Performance

Madrasah reform is a multidimensional process that involves changes in leadership, teaching practices, and institutional structures. Fullan (2009) argued that educational reforms are necessary to improve teacher

performance, student outcomes, and institutional efficiency. In Indonesia, madrasah reform is part of a broader effort to modernize Islamic education, ensuring that students are equipped with the knowledge and skills they need to succeed in a rapidly changing world.

Research by Kounetas et al. (2023) demonstrated that educational reforms have a direct impact on institutional performance, particularly in terms of student outcomes and operational efficiency.

### 3. **Research Method**

This study employs quantitative research methods to gain an understanding of the relationships between digital transformation, transformational leadership, collaborative culture, madrasah reform, and madrasah performance. Quantitative data were collected through structured surveys distributed to madrasah leaders, across Indonesia. The population for this study consists of madrasah institutions across Indonesia, including both public and private madrasahs at the RA, MI, MTs, and MA levels. A total of 219 respondents were targeted for the survey, ensuring proportional representation from different regions of Indonesia.

Primary data were collected through a structured questionnaire that included a Likert scale (1 = strongly disagree, 6 = strongly agree) to measure respondents' perceptions of digital transformation, transformational leadership, collaborative culture, madrasah reform, and madrasah performance. Quantitative data were analyzed using descriptive statistics to summarize the data and Structural Equation Modeling to test the research hypotheses.

### 4. **Results and Discussion**

This research underscores the pivotal role of digital transformation in enhancing transformational leadership, a critical factor in driving madrasah reform and potentially improving institutional performance. As madrasahs integrate digital technologies into their educational and administrative practices, they create an environment where leaders are more effectively equipped to navigate complex changes. These changes are not just technological but involve a fundamental shift in how leadership approaches challenges and opportunities within the institution.

The findings reveal that digital transformation empowers madrasah leaders to articulate clearer, more forward-thinking visions. In a rapidly evolving educational landscape, the ability to set a strategic direction that leverages digital tools and methods becomes essential for sustaining relevance and driving continuous improvement. Leaders who embrace digital transformation are able to define and communicate goals that align with both the modern educational demands and the institution's religious mission, ensuring that madrasah reforms stay rooted in their cultural and spiritual values while innovating for the future.

Moreover, the capacity to foster innovation becomes a key component of this leadership transformation. As madrasah leaders become more familiar with the potential of digital tools, they are better positioned to encourage creativity and experimentation within their teams. This results in a shift in organizational culture, where teachers, administrators, and staff are more open to adopting new technologies and pedagogical approaches. The ability to foster a spirit of innovation is vital in ensuring that digital transformation does not remain confined to isolated technological changes but becomes embedded in the institution's broader reform efforts. By promoting an innovative culture, leaders encourage their teams to think beyond traditional methods, exploring new ways of delivering education that meet the needs of students in the digital age.

Another key finding is that this leadership transformation enhances the overall capacity of the madrasah. As leaders become more adept at managing change through digital transformation, they simultaneously build the institutional resilience and adaptability needed to thrive in the face of new challenges. The ability to guide an institution through a period of transformation involves not only managing current demands but also anticipating future developments in technology, education, and societal needs. Leaders who can foresee these trends and prepare their institutions accordingly ensure that madrasahs remain competitive and capable of providing high-quality education.

This improved capacity within the madrasah extends beyond leadership alone—it permeates every level of the institution. Teachers are more engaged and motivated to integrate digital tools into their classrooms, creating a more dynamic and interactive learning environment for students. Administrative staff also benefit from streamlined processes and more efficient communication systems, leading to improved operational

efficiency. In this way, digital transformation enhances the entire ecosystem of the madrasah, strengthening both its educational mission and its day-to-day functioning.

Additionally, the enhanced leadership capabilities resulting from digital transformation have broader implications for madrasah reform. As leaders become more confident in guiding their institutions through technological and organizational changes, they are also more equipped to push for deeper reforms. These could include curriculum updates that incorporate digital literacy, the introduction of e-learning platforms that make education more accessible, or the adoption of data-driven approaches to track and improve student performance. By embedding digital tools into the heart of madrasah reform, leaders are not only responding to the current educational landscape but also preparing their institutions for future innovations and challenges.

In conclusion, this research demonstrates that digital transformation serves as a catalyst for enhancing transformational leadership in madrasahs, which is crucial for driving meaningful reforms. Leaders who embrace digital tools and innovation are better equipped to manage and inspire their teams, articulate clear visions for the future, and build an institutional capacity that ensures sustainable success. The impact of these changes extends throughout the madrasah, improving performance, fostering innovation, and creating a more resilient and forward-thinking educational institution.

## 5. Conclusion and Implications

This research has demonstrated the significant role digital transformation plays in enhancing transformational leadership, which is essential for driving madrasah reform and improving institutional performance. As madrasahs adopt digital tools and technologies, leaders become better equipped to navigate change by articulating clear visions, fostering innovation, and building a culture that supports continuous growth. The integration of digital transformation into the leadership framework not only strengthens the capacity of leaders to manage and inspire their teams but also enhances the overall effectiveness and adaptability of the institution.

The findings underscore that digital transformation is not just about the adoption of technology but about empowering leadership to spearhead broader institutional reforms. By creating an environment that encourages innovation, collaboration, and professional growth, madrasahs can improve their performance, both in terms of operational efficiency and educational outcomes. Ultimately, this research suggests that digital transformation, when paired with strong leadership, is key to ensuring that madrasahs remain competitive and relevant in the modern educational landscape while staying true to their Islamic educational values.

The study highlights the need for madrasah leaders to embrace digital transformation as a tool for institutional reform. Leadership development programs should focus on equipping leaders with the skills to integrate technology effectively, fostering innovation, and articulating clear visions that align with both modern educational requirements and traditional Islamic values. For policymakers, there is a need to support madrasahs in building digital infrastructures and providing leadership training to ensure a smooth transition into the digital age.

The findings suggest that fostering a collaborative culture within madrasahs is critical for the successful implementation of digital transformation. Educational institutions should focus on creating opportunities for staff to engage in professional development and collaborative learning. By enhancing organizational learning, madrasahs can better adapt to technological changes and ensure continuous improvement. This requires a shift in mindset, where digital tools are seen as enablers of innovation rather than mere additions to existing processes.

In summary, this research offers valuable insights into how digital transformation can drive madrasah reform by enhancing leadership capabilities, ultimately leading to improved institutional performance and educational outcomes.

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