

TRANSFORMING MADRASAH TOWARD SMART SCHOOL ERA: FROM MANUAL TO DIGITAL

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ABSTRACT

This paper explores the digital transformation of Islamic elementary education institutions, particularly the experience of Madrasah Ibtidaiyah Imami Kepanjen, in adapting to the Smart School era. The study aims to identify the process, impact, and challenges of transitioning from manual systems to digital environments in both academic and administrative dimensions. Using a qualitative descriptive approach through observation, interviews, and document analysis, this research reveals that digitalization enhances efficiency, transparency, and communication between teachers, students, and parents. The implementation of online examinations, digital media-based learning, and information systems for administration marks a significant step toward modernization. However, challenges remain, including digital literacy gaps among educators and limited infrastructure. The integration of Islamic values ensures that technology serves as a tool for moral and spiritual development rather than mere modernization. The findings highlight that smart madrasah transformation must align with the institution's vision to produce digitally literate, ethical, and faithful students.

Keywords: Digital Transformation, Smart School, Madrasah, Islamic Education, Technology Integration

INTRODUCTION

In recent decades, the education sector has undergone significant digital transformation. Technological innovation has influenced how teachers deliver lessons, how students learn, and how schools manage their systems. However, Islamic education institutions such as madrasahs often face challenges in adopting these changes due to limited resources and digital readiness. This study focuses on how Madrasah Ibtidaiyah Imami Kepanjen, an Islamic elementary school in East Java, Indonesia, has transformed from manual to digital systems. The transformation reflects a broader national effort to modernize madrasah education while maintaining its religious identity and values.

METHOD

This study employs a qualitative descriptive approach aimed at understanding the process and implications of digital transformation. Data were collected through interviews with teachers and administrators, observation of classroom practices, and documentation analysis. The analysis process involved data reduction, categorization, and

interpretation to identify key patterns related to digital transformation initiatives and their impact on teaching, learning, and administration.

RESULTS AND DISCUSSION

Before the transformation, Madrasah Ibtidaiyah Imami Kepanjen relied heavily on manual systems. Attendance records, grade books, and reports were handwritten, consuming significant time and paper resources. Administrative communication with parents also required face-to-face meetings or printed letters, which limited real-time information exchange.

The digital transformation began with the introduction of basic computer literacy training for teachers, followed by the use of simple digital tools such as Microsoft Excel and Google Forms for attendance and grading. The school gradually integrated digital learning platforms, including Canva, CapCut, and Google Classroom, enabling teachers to design engaging and creative lessons.

Online examinations using Computer-Based Testing (CBT) systems became a major milestone. These systems improved assessment efficiency and accuracy while fostering students' familiarity with technology. Moreover, digital report systems enhanced transparency, allowing parents to access their children's progress anytime.

The transformation resulted in improved efficiency, better communication, and increased student engagement. However, challenges persisted, including inconsistent internet connectivity and varying levels of teacher digital competence. The school addressed these issues by organizing regular training sessions and providing mentoring for less tech-savvy teachers.

From an Islamic education perspective, the transformation process emphasizes the importance of adab (ethics) in technology use. Teachers are encouraged to guide students in practicing digital manners, avoiding plagiarism, and maintaining discipline during online activities. The madrasah ensures that every technological advancement aligns with Islamic moral principles, positioning technology as a tool for achieving holistic education.

CONCLUSION

The transformation of Madrasah Ibtidaiyah Imami Kepanjen toward a smart school model demonstrates that digitalization can coexist harmoniously with Islamic values. The successful integration of technology in teaching and administration proves that madrasahs can

modernize without losing their spiritual foundation. Sustainable change requires continuous teacher training, strong leadership commitment, and support from all stakeholders. Ultimately, digital transformation in madrasahs should aim not only for efficiency but also for nurturing digital ethics and Islamic character among students.

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