

Challenges of School Administration in the Digital Era in Padang Pariaman Regency

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ABSTRACT

This article examines the challenges and opportunities faced by schools in Padang Pariaman Regency in implementing digital-based administration. This research uses a descriptive qualitative approach, with data collection methods through in-depth interviews and direct observation in several schools in the area. This study aims to describe in detail the existing conditions and identify factors influencing the implementation of digital-based administration in Padang Pariaman Regency schools. The results indicate that the main challenges faced are limited infrastructure, low digital competency among educators and administrators, and resistance to change. On the other hand, digitalization of administration provides opportunities to increase efficiency, transparency, and parental involvement in education. This study suggests the need for infrastructure improvements, training for educators and administrators, and stronger policy support from the local government.

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1. INTRODUCTION

Digital transformation has penetrated various sectors of life, including the education sector in Indonesia (Revaldhi et al., 2025). School administration, as a crucial part of the educational management process, has also begun adopting technology-based systems to improve efficiency and transparency (Hasan & Anita, 2024). Amidst technological advancements, the challenges of implementing digital-based administration systems are a pressing issue, particularly for regions facing limited infrastructure and human resources, such as Padang Pariaman Regency, West Sumatra (Dalimunthe et al., 2025). Digital, comprising rural and hilly areas, faces a number of challenges in education management, including facilities, human resources, and access to digital technology (Multi et al., 2025). School administration in this area is generally still carried out manually or using simple systems, resulting in data disorganization and slowing decision-making. Meanwhile, the shift toward digitalization of education administration initiated by the central government, both through policies such as the Education Management Information System (SIMPKB) and other national programs, requires significant adaptation by schools in this area (JIME, 2024).

The digital transformation of school administration in Padang Pariaman Regency faces challenges such as limited infrastructure, a lack of stable internet access in some areas, and limited adequate hardware (Daud et al., 2024). Furthermore, low digital competency among educators and administrative staff is a major obstacle to utilizing technology for student data management, reporting, and communication with parents (Anam, 2024). However, technology implementation offers significant potential, such as increased work efficiency, transparency in data management, and improved quality of educational services for students and parents (Fatimah et al., 2024). This study aims to describe the challenges and opportunities that arise in the implementation of digital administration in schools in Padang Pariaman Regency. A descriptive qualitative approach was used to understand the conditions on the ground and to gather the views of various stakeholders in the education sector. By collecting data through interviews with teachers,

administrative staff, and school principals, this study aims to provide a comprehensive overview of the challenges faced in implementing digital-based administration in this region.

Article Type

This article falls into the category of descriptive qualitative research articles because it aims to describe in detail the phenomena occurring related to the implementation of digital-based administration in schools in Padang Pariaman Regency. A qualitative approach was used to collect and analyze data through in-depth interviews and direct field observations. This research aims not only to understand the challenges faced but also to explore potential opportunities that can be utilized in the process of digitizing school administration. Descriptive methods are used to describe the current conditions, both in terms of infrastructure, the digital competence of educators and administrators, and attitudes towards change. This research aims to provide readers with insight into the situation in Padang Pariaman Regency and provide recommendations to address the identified challenges, such as improving infrastructure and ongoing training.

Furthermore, this article emphasizes thematic discussion, where the collected data is analyzed based on key themes emerging from interviews and observations. The research findings are presented in a summary table of challenges and opportunities related to the digitalization of school administration. This analysis provides a comprehensive and in-depth overview of the situation on the ground, focusing on key stakeholders involved in the digital transformation process. Thus, this article aims to provide information that can be used to plan policies or further actions related to the digitalization of educational administration in regions facing similar challenges.

2. METHOD, DATA, ANALYSIS

This study uses a descriptive qualitative approach to detail the challenges and opportunities in implementing digital-based administration in schools in Padang Pariaman Regency. This method was chosen because it allows researchers to understand conditions on the ground through the perspectives of stakeholders directly involved in the process. Data was collected through in-depth interviews with principals, teachers, and administrative staff at several schools in Padang Pariaman Regency. Direct observations were also conducted to identify existing administrative practices and challenges faced in the digitalization process. The data were then analyzed thematically, identifying key patterns and themes emerging from the interviews and observations and describing the conditions on the ground.

3. RESULTS AND DISCUSSION

Results

Based on in-depth interviews and direct observations conducted at several schools in Padang Pariaman Regency, several challenges and opportunities were identified related to the implementation of digital-based administration. The following table summarizes the challenges and opportunities identified in this study.

Table 1. Challenges in Implementing Digital Administration

No	Challenge	Description Of Findings	Impact
1	Infrastructure Limitations	Schools in rural and hilly areas have difficulty accessing stable internet and adequate hardware.	These limitations hinder the effective and efficient use of digital-based administration systems.
2	Low Digital Competence	Many educators and administrative staff do not yet have adequate skills in operating digital-based information systems.	Without adequate training, the use of technology in educational administration is limited and suboptimal.

3	Resistance to Change	Many parties are still comfortable with the manual system that has been used for years and find it difficult to switch to a digital system.	This resistance slows down the digitalization process and hinders the adoption of new, more efficient technologies.
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Table 2. Opportunities in Implementing Digital Administration

No	Opportunity	Description Of Findings	Impact
1	Increased Efficiency	By using a digital-based administration system, the process of managing student data, attendance, and reports becomes faster and more efficient.	Faster and more accurate administrative processes, reducing staff workload and saving time.
2	Increased Transparency	Digitally managed data can be accessed by parents and other relevant parties, increasing transparency in school reporting and management.	Increase accountability and make it easier for parents to monitor their children's development.
	Increased Parental Involvement	The digital-based administration system allows parents to more easily access their children's academic and attendance reports in real-time.	Increase parental participation in the child's educational process, which can strengthen student motivation.

Table 3. Supporting Factors for Successful Digitalization

No	Support	Description of Findings	Impact
1	The Importance of Policy Support	School principals and administrative staff expressed that policies from local and central governments are crucial to driving the success of digitalization.	Supportive policies facilitate implementation and ensure the sustainability of administrative digitalization.
2	Ongoing Training	Most staff expressed that more intensive and continuous training was needed to improve digital competency.	Adequate training will help staff to be more confident in using digital technology and systems.
3	Parent and Community Participation	Parents who are given access to digital platforms show a greater interest in their children's educational development.	Parents who are given access to digital platforms show a greater interest in their children's educational development.

Discussion

Based on the findings of this study, several key challenges are faced in implementing digital-based administration in schools in Padang Pariaman Regency. These challenges are closely related to limited infrastructure, low digital competency among educators and administrative staff, and resistance to change.

However, despite these challenges, there are also significant opportunities that can be exploited to improve efficiency, transparency, and parental involvement in education.

A. Challenges in Implementing Digital Administration

Limited infrastructure is one of the biggest challenges faced by schools in Padang Pariaman Regency in implementing digital-based administration. Field findings indicate that many schools located in rural and hilly areas struggle to access stable and fast internet connections. This directly impacts the smooth operation of digital-based administration systems, which require a reliable internet connection to ensure fast and accurate data processing. In some more remote areas, some schools can only rely on 3G or even 2G modem internet connections, which are inadequate for accessing cloud-based administration platforms or other digital systems (Saputra et al., 2024). Some principals reported that this constraint forces them to use manual administration methods for parts of the data management process. Furthermore, in some schools, hardware is still very limited, with some schools having only one computer for the entire administrative staff.

Investing in infrastructure is the first step needed to ensure the success of administrative digitalization in Padang Pariaman Regency (Wulandari et al., 2024). Developing better internet infrastructure, particularly in rural areas, will be crucial for supporting the implementation of digital systems in these schools. Furthermore, adequate hardware, such as computers and mobile devices accessible to administrative staff and teachers, is essential for optimizing the implementation of digital-based administration. In addition to limited infrastructure, the second challenge identified in this study is low digital competency among educators and school administrative staff (Sugiyantoro & Apriliantoni, 2025). While many teachers and administrative staff possess basic computer skills, they lack the skills to use more complex digital-based school management information systems. For example, some administrative staff at these schools are unfamiliar with the software used to manage student data, attendance, and school activity reports.

One school principal revealed that despite introducing a digital administration system, many administrative staff found it difficult to use the applications. The lack of adequate training to introduce the digital system to administrative staff led to numerous errors in data management and delays in reporting. Without ongoing training, administrative staff were unable to maximize the use of existing technology (Khatulistiwa, 2025). To address these challenges, ongoing and structured training is essential. This training should cover technical skills related to the software and administrative applications used, as well as provide a broader understanding of how digital systems can improve administrative efficiency. Training should not only be limited to administrative staff, but also include teachers, who need to become accustomed to using digital platforms to report grades, record attendance, and carry out other administrative activities (Masinambow et al., 2025).

Resistance to change is another challenge emerging in the implementation of digital-based administration in Padang Pariaman Regency (Rahmaditha & Hanani, 2025). Although administrative digitization offers numerous benefits, such as increased efficiency and transparency, many parties still feel more comfortable with the manual systems they have used for years. This is due to several factors, such as a lack of understanding of the benefits of technology and a fear of the complexity of new systems. Many teachers and administrative staff felt that transitioning from their familiar manual administration systems to new digital systems would require more time and effort. They were concerned that adopting technology would take longer, and they felt they didn't have enough time to learn the new system. Most principals reported facing difficulties convincing their staff to switch to digital-based systems. Overcoming this resistance requires a more persuasive and educational approach (JMIA, 2024). One step that can be taken is to provide clearer outreach and communication about the benefits of digitalization, by showcasing real-life examples of schools that have successfully transitioned to digital systems. Educating staff and teachers about how technology will simplify their work and increase efficiency in schools is crucial to alleviating anxiety and fear of change.

B. Opportunities for Increasing Efficiency and Transparency

Despite various challenges, digitizing administration offers significant opportunities in terms of efficiency and transparency. The implementation of a digital-based administration system allows for faster administrative processes, as all data previously managed manually can now be managed in real time

(Fatimah et al., 2024). For example, a process that previously took days to generate grade reports can now be completed in a matter of hours. More efficient student data management reduces the likelihood of human error, which is common in manual data management. Digitally managed data can be accessed by various stakeholders, such as parents, educational institutions, and education offices, allowing them to monitor educational progress more transparently. This enhances accountability in the management of education funds and policies, as parents can view reports on school activities and their children's academic progress directly through digital platforms.

One of the major benefits of digitizing administration is increased parental involvement in their children's education (Sutarsih & Haryati, 2024). Using a digital administration system allows parents to access information about their children's academic progress more easily and quickly. This allows parents to be more actively involved in supporting their children's education, both at home and at school. In interviews, many principals reported that parental involvement in school activities increased after they were given access to digital systems. Parents who were previously not directly involved in the educational process are now more active in providing feedback and discussing their children's academic progress. This greater parental involvement has a positive impact on students' motivation to learn and improves their educational outcomes. With easier access, parents can provide greater support in their children's learning, both academically and behaviorally.

C. Supporting Factors in the Success of Administrative Digitalization

One key factor supporting the successful implementation of digital-based administration in Padang Pariaman Regency is clear and consistent policy support from both the local and central governments (Hidayat & Patras, 2024). In interviews with several school principals, they stated that policies supporting digitalization, both from the education office and the local government, were highly influential in accelerating the implementation of digital systems. The existence of supportive policies, such as budget allocation for technology infrastructure and teacher training, is a crucial factor in ensuring the effectiveness of digitalization. Without supportive policies, both in terms of funding and training, schools will struggle to implement digital-based administration systems. For example, policies that allocate funds for the purchase of hardware and software needed to run digital systems in schools will ensure that the technology infrastructure is available and can be utilized optimally. Therefore, policy support from local governments that continuously encourage and facilitate digital transformation in schools is crucial for the successful implementation of digital-based administration (Fadhilah, 2024).

The second supporting factor identified in this study was ongoing training for educators and administrative staff. Many principals revealed that although some training on the use of digital systems had been conducted, it was not sufficiently intensive and sustainable to meet the needs of the field (Daud et al., 2024). In some cases, the training was provided only once at the beginning of implementation and was not repeated or updated to reflect changing technological developments. This resulted in many teachers and administrative staff lacking a thorough understanding of how digital systems operate. More in-depth and ongoing training is crucial to ensure that educators and administrative staff have sufficient skills to operate digital administrative devices and systems (Hartabela et al., 2024). For example, training on student data management, absence reporting, and academic assessment should be conducted regularly to ensure everyone stays abreast of technological developments. Furthermore, training should be tailored to the specific needs of each school, as some schools may require advanced skills in using more complex systems or specific software.

One factor that significantly contributes to the success of administrative digitization is the active participation of parents and the community in their children's education (Jannah et al., n.d.). Many school principals report that after administrative digitization, parents have become more active in monitoring their children's academic progress through the digital platforms provided by the school. This system allows parents to view their children's grades, attendance, and school activities in real time, making them feel more involved in their children's education. Parental involvement in education can provide additional support that is crucial for student success (Arwen, 2021). Research shows that parents who are more involved in their children's education tend to have students who are more motivated and achieve better. Furthermore, digital

systems that enable direct communication between parents and schools can help resolve issues more quickly and enhance collaboration between schools and parents in supporting children's learning. Therefore, providing parents with access to monitor academic progress and communicate with the school is a key to success in the digital transformation of administration.

4. CONCLUSION

This research shows that despite various challenges in implementing digital-based administration in Padang Pariaman Regency, there are significant opportunities to improve efficiency, transparency, and parental involvement in education. The main challenges faced are limited infrastructure, low digital competency, and resistance to change. Therefore, infrastructure improvements, intensive training for educators and administrators, and stronger policy support from the local government are needed. Therefore, digitalizing school administration can be a crucial step towards improving the quality of education in this region. (Author, 2024)

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