



The Role of School Administrators in Improving the Quality of School Management in the Digital Era

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Abstract: The role of administrative staff in school management in the digital era is still relatively minimal. The role of administrative staff is an important part of the school management system, which is often overlooked. In the digital era, this role is even more important as they have to help operate various digital systems that support school management. The purpose of this study is to describe the multifaceted role of administrative staff in utilizing technology to improve the quality of school management. This research uses the desk research method and focuses on analyzing literature and secondary materials related to the research topic. The data source of this research is literature or documents relevant to the research topic. The data used is secondary data that already exists and is available to the public. Data analysis is carried out through the process of reading, synthesizing, and understanding the information contained in the data sources. The adoption of digital technology in school management leads to increased efficiency, better decision-making, increased transparency and improved quality assurance, while it also presents challenges that need to be addressed for successful adoption. The important role of administrative staff in utilizing technology to improve school management, enhance decision-making, and ensure quality education, ultimately leading to better outcomes for students and the institution as a whole.

Keywords: Role, School Administrators, School Management, Digital Era.

Introduction

The ongoing digital transformation has brought major changes in various sectors, including education. In the midst of accelerating global changes, the education system is required to adapt to meet the needs of generations living in a digital world. Digitalization of education plays an important role in developing the character of students, as well as encouraging educators to adapt to the use of ICT in the teaching and learning process (Sufyan & Ghofur, 2022). The digitalization of education not only includes changes in teaching and learning methods, but also affects how schools are managed. Technology has changed the way schools conduct administration, manage resources and communicate with various stakeholders, including students, parents and the government. The application of information technology in education not only improves the learning process but also accelerates school administration through a more efficient integrated system (R. Firmansyah et al., 2023). On the school management side, the use of digital technologies such as school management information systems (SIMS), e-learning platforms and electronic filing systems has become an integral part of efforts to improve the efficiency and quality of school services.

However, alongside the opportunities offered by digital technology, there are also a number of challenges that schools have to face. One of the main challenges is the digital divide, which refers to the difference in access to technology between schools



located in urban and rural areas and between those that are well-resourced and those that are not. Inadequate digital infrastructure, especially in remote or underserved areas, significantly hinders digital inclusion due to insufficient internet connectivity and network coverage (Veriska & Khairunnisa, 2024). In addition, rapid technological changes are often not matched by the readiness of human resources, including school administrators, who have a central role in managing the day-to-day administration and operations of schools.

School management is a series of processes that include planning, organizing, implementing and evaluating all aspects that support the success of education in schools. Good management is necessary to create an environment conducive to learning and to ensure that all components of the school run optimally. School management components include curriculum management, finance, human resources, facilities and community relations. Good relationships with the surrounding community can strengthen support for school activities and increase parental participation in the education process.

In the digital era, the role of school management has changed significantly. The use of technology allows for more efficient management, both in terms of administration and operations. For example, student data that used to be managed manually can now be stored in a centralized database system and accessed at any time through digital devices. The above statement is in accordance with the opinion of Safparudin et al. (2024), which states that the application of technology in education management can improve the efficiency and effectiveness of student data management, which was previously done manually. With a digital-based system, school management can not only speed up the administrative process but also increase the accuracy of the data managed (Putri et al., 2023).

Technology also makes it easier to manage school resources, such as teaching staff, facilities, and budgets. By using technology-based management systems, schools can plan and monitor budgets more transparently and ensure that their resources are used effectively. Good school financial management is very important as it directly affects the sustainability of school operations (Setiawati, 2023). Curriculum management can also be improved with digital technology. An integrated information system can help teachers and administrators monitor students' academic progress, plan learning activities and identify students' needs more specifically. Thus, technology not only improves management efficiency but also has a positive impact on the quality of learning in schools.

School administrators play a vital role in maintaining the smooth operation of the school. They are responsible for various administrative tasks, such as managing student data, archiving documents, organizing school activities, and communicating with external parties. Administrative personnel not only function as implementers of routine tasks, but also as liaisons between various parties in the school environment, including teachers, students, and parents (Arina et al., 2022). These tasks, although often considered routine, are actually very important to support the achievement of educational goals in schools. The existence of competent administrative personnel is essential to achieve broader educational goals and improve the quality of services in schools (Rianti et al., 2022).

In the digital era, the role of administrative personnel is evolving along with technological advances. They no longer only deal with physical documents, but also have to manage electronic data and use various management applications. Integrated



information systems, such as the School Management Information System (SIMS), make it easier for administrative personnel to manage student, financial and inventory data more effectively and efficiently. However, in order to maximize the benefits of this technology, administrative personnel must have adequate skills in the use of technology-based software and applications. These skills include not only basic computer skills but also an understanding of data management, information security and the use of various digital platforms that support school operations.

School administration in the digital era is also faced with various challenges, the biggest of which are lack of technology skills, limited infrastructure, resistance to change and disparities. Lack of stable internet, hardware limitations, and cost for technology updates are also major obstacles for schools in implementing technology-based management systems (Muthmainnah, 2022). Resistance to change also requires adaptation of work culture which is not easy. Resistance to change is also a significant factor, as many administrative personnel still need support and training to adapt to new technologies. Administrators may feel uncomfortable or afraid of the changes, especially if they are not familiar with technology. These challenges require special attention from both the government and schools to ensure that administrators get the necessary support to adapt to the digital era.

Technology has had a significant impact on school administration, allowing the workforce to improve their skills and efficiency. Digital technology enables more efficient work, reduces manual labor and increases accountability in data management. Integrating school management applications allows the integration of various aspects of school management, such as student management, financial management and academic research. Transparency is also enhanced through data-driven systems, fostering a better relationship between the school and the community. Online learning platforms, such as online courses, allow educators to develop their skills without increasing their working hours. By utilizing technology, education personnel can become more productive and contribute significantly to improving the quality of school administration. However, this can only be achieved if they overcome the challenges in teaching, infrastructure and governance that require the use of technology in schools.

While there have been many studies on the importance of technology in education, especially in relation to teaching and learning, research on the role of administrative personnel in school management in the digital era is still minimal. Most existing literature focuses more on the role of teachers and principals in adopting technology to support teaching and learning. Meanwhile, the role of administrative staff, which is also an important part of the school management system, is often overlooked. In fact, the role of administrative personnel is crucial in maintaining the smooth running of daily school operations, especially in terms of data and information management. In the digital era, this role is even more important as they must be able to operate various digital systems that support school management, such as school management information systems (SIMS), digital-based financial management systems, and applications for communication with other stakeholders. Therefore, more research is needed to explore how administrative personnel can play an effective role in improving the quality of school management in the digital era.

Method

This research adopts the library research method and focuses on analyzing literature and secondary materials related to the research topic. In this case, researchers



will collect and review various sources of information such as books, scientific journals, research reports, and other relevant documents related to the management of education financing and improving the quality of school education.

The data sources of this research are literature or documents related to the research topic. The data sources include books, journal articles, research reports, education policies and other relevant documents related to the management of education financing and improving the quality of school education. The data used is secondary data that already exists and is publicly available. Data collection techniques include searching and collecting various sources of information relevant to the research topic. The researcher used selection criteria to determine the relevance and reliability of the data sources used in the study. Such selection criteria may include year of publication, accuracy and reliability of the author, relevance to the research topic, and diversity of perspectives represented in the data sources. Data analysis in this research is conducted through the process of reading, synthesizing, and understanding the information contained in the data sources. The researcher will identify patterns, themes, and relationships between concepts in the relevant literature. The results of data analysis will be used to establish research arguments and conclusions.

Results and Discussion

The role of school administrators in improving school management in the digital era is increasingly important and strategic. With the rapid development of technology, the function of administrative personnel is not only limited to routine administrative management, but also as the main driver in utilizing digital technology to improve the overall efficiency and effectiveness of school operations. The implementation of management information systems in schools can reduce manual workload and increase transparency in information management. The following is a more in-depth explanation of the role of school administration personnel in the context of school management in the digital era.

1. More sophisticated and efficient data management

One of the most important aspects of the role of school administrators is data management. Before the digital era, school data was managed manually, which was highly vulnerable to errors, theft or physical damage. In the digital era, technology has made data management easier through computerized school management information systems (SIMS). Manual data management has many weaknesses, such as data entry errors, data loss, and physical damage to documents. A study shows that the use of a school management information system (SIMS) can reduce data entry errors and ensure data security. Thus, data management in schools becomes more accurate and efficient.

SIMS allows administrative personnel to store data on students, teachers, finances, and inventory in a centralized and integrated manner. This data can be accessed quickly and in real-time by authorized parties, including principals and teachers (Hilda et al., 2022). For example, student attendance data that used to be recorded in manual books can now be entered into a digital system, and parents can directly monitor their child's attendance through the available applications.

2. Increased Efficiency in Decision Making

Apart from being responsible for operational matters, administrative personnel also have an important role in supporting strategic decision-making in schools. In the digital era, digitally managed data provides a strong foundation for principals and other leaders to make more evidence-based decision making. Accurate and real-time data



allows policy makers to better understand the school situation and plan more effective strategies (Hilda et al., 2022).

For example, through the analysis of financial data provided by administrators, principals can determine more efficient budget allocations for facilities development, technology procurement and academic programs. In addition, digitally processed historical data trends can also help in forecasting future school needs, such as the number of new students to be admitted, the need for teaching staff, or infrastructure improvements.

Digital systems also allow for comprehensive analysis of student academic achievement. Administrators can compile more detailed reports on student performance so that schools can formulate more targeted education quality improvement policies. Thus, administrators play a key role in providing information and data that support strategic and progress-oriented decision-making.

3. Transparent and Accurate Financial Management

Financial management is another crucial task performed by administrative staff. In the digital era, financial management that used to be done manually can now be made easier with modern school accounting software. This system allows recording of budgets, expenses and income to be done automatically and more accurately. Administrative personnel can monitor the school's financial condition in real-time, making it easier to create transparent and detailed financial reports, both for internal and external needs, such as audits or government parties. Digital financial management plays an important role in improving accountability and efficiency in financial transactions. Digital financial management also supports higher accountability, as every transaction can be clearly tracked, reducing the risk of recording errors or even fraud.

Digital systems allow real-time tracking of transactions, which reduces the potential for errors and increases transparency in financial reports (Widodo et al., 2023). In addition, school fee payments can also be made through digital systems, such as bank transfers or online payment platforms, which not only makes it easier for parents but also for administrative personnel to monitor cash flow more efficiently. The use of digital payment applications in the education sector has been proven to speed up administrative processes and provide convenience for parents and schools in managing finances (Cahyani, 2024). With financial reports prepared digitally, school leaders can monitor the use of the budget in more detail, for example for operational needs, procurement of facilities, or other educational activities. This transparency also allows parents and other stakeholders to get a clearer picture of how school funds are used, thus increasing their trust in the institution.

4. More Effective Communication Management

Another important role of school administrators is to manage communication, both internally (teachers, students, principal) and externally (parents, external parties). Before the digital era, communication was often done manually, such as through letters or phone calls, which can be time-consuming and inefficient. Manual communication can cause delays in information delivery and lack of parental involvement in the education process (T. Firmansyah et al., 2024). However, with digital technology, communication can now be done through faster communication platforms, such as email, school management applications or short messages. The use of digital platforms enables more effective and efficient communication management, enhances parent and student engagement and accelerates the flow of information within the school community (Suyadnya, 2024). In addition, digital technology also helps reduce the



workload of administrative personnel by providing more structured and accessible communication channels.

Administrators can use integrated school applications to communicate important information, such as timetables, exams or policy changes, to parents and students in real-time. The system also allows for two-way communication, where parents or students can provide feedback or questions that are directly responded to by the school, resulting in a faster problem-solving process. In addition, the application also helps the administration in documenting communication with relevant parties, which is important for school archives and to maintain transparency in interactions with external stakeholders.

5. Digital-based Logistics and Inventory Management

Apart from financial and data management, administrative staff are also responsible for logistics and inventory management. In the digital era, inventory management such as school equipment, books, building facilities and teaching materials can be done more effectively through digital systems. The use of a web-based inventory management system can improve efficiency and accuracy in inventory management, allowing administrative personnel to track the availability of goods, place orders, and record facility maintenance more systematically (Adha et al., 2023). With inventory management software, administrative personnel can track the availability of goods, place orders, and record facility maintenance more systematically. Digital systems can reduce the risk of manual errors and increase transparency in inventory management.

Digital-based management also allows for more efficient procurement arrangements. For example, the school's needs for certain facilities can be monitored automatically, so that procurement can be done on time without waiting for shortages that might disrupt teaching and learning activities. Digital inventory management systems can help schools monitor and manage assets more effectively, so that procurement can be done in a more planned and timely manner (Adha et al., 2023). By using inventory management software, administrative personnel can access real-time information on item availability and procurement needs. This is in line with the finding that digitization in inventory management not only improves efficiency but also reduces the risk of errors in the procurement process. In addition, the system enables better communication between departments in asset management, so that all needs can be met without delay.

6. Human Resource Management (HRM)

Administrators also play an important role in the management of human resources (HR) in schools. They are in charge of managing personnel data, such as attendance, work schedules, performance evaluation, and staff competency development. Digitalization in HR management allows for more efficient and accurate management of personnel data, as well as improving the ability of administrative personnel to conduct data analysis (Alwy, 2022). In the digital era, this task is made easier with an integrated digital-based HR management system. This system not only simplifies administrative processes but also enables real-time performance monitoring and more targeted staff competency development.

Using information and communication technology (ICT), schools can optimize HR management to achieve higher effectiveness. With this technology, administrative personnel can manage teachers' schedules, record their attendance, and create performance reports based on existing data. The system also allows schools to plan training and competency development for teachers and staff as needed, which will



ultimately improve the quality of education provided in schools (Efendi & Sholeh, 2023). Digital-based management systems make it easier to manage personnel data and increase efficiency in administrative processes.

7. Professional development and technology training

In order to perform all these tasks well, administrative personnel must continuously improve their competencies, especially in terms of technology utilization. Therefore, one of the roles of administrative personnel is to attend regular training and professional development. Targeted training can improve the skills and knowledge of administrative personnel, so that they are better prepared to face challenges in the digital era (Azriza, 2022). The use of school administration software, digital accounting systems, information management and relevant communication technologies. With continuous training, administrative personnel can optimize the use of technology to support operational efficiency in schools.

The development of these competencies is also important to ensure that administrative personnel can adapt to rapid technological changes. In addition, it is important for administrative personnel to understand the aspects of data and cyber security. Given that they manage very important and sensitive data, administrative personnel need to be equipped with knowledge on how to keep the digital systems used by schools safe from cyber threats, such as hacking or data leakage. Cybersecurity is a major challenge in the digital age, and administrators need to be prepared to deal with it in an effective way.

8. Increased Transparency and Accountability

Digital technology allows for a more transparent system in the implementation of administrative tasks. Every process, from data management to finance, can be more open and accessible to interested parties. The use of digital tools in education management can increase transparency and accountability, thus minimizing the possibility of data manipulation (Sulistiawati et al., 2024). For example, financial reports or student attendance statistics can be accessed by the school principal directly, minimizing the possibility of data manipulation. With an integrated system, all stakeholders can view relevant information in real-time, which supports better decision-making and responsiveness to school needs. The implementation of this transparency also increases accountability, as every administrative action can be monitored and audited more easily.

Administrators can ensure that all processes are in accordance with applicable regulations and standards, allowing schools to perform their functions more professionally and reliably. Increased transparency in school management contributes to better accountability and enables more effective performance evaluation (Rohman et al., 2024). A transparent system allows all stakeholders to monitor the use of resources and program implementation, which in turn increases public trust in educational institutions. With clear auditing and reporting mechanisms in place, administrative personnel can more easily detect and prevent potential irregularities or data manipulation.

9. Improved Services to Students and Parents

One of the positive impacts of the digitalization of school management initiated by administrative personnel is the improvement in the quality of services to students and parents. Previously, administrative arrangements such as report card collection, new student registration, tuition payments, or information about school activities had to be done manually by coming directly to the school. The implementation of digital systems in school management can improve the accessibility and efficiency of administrative



services, making it easier for parents and students to access important information (Alwy, 2022). This is often an obstacle for busy parents or students who have limited time. In the digital era, many of these services can now be accessed through online platforms. For example, new student registration can be done through the school portal without having to come in person.

Digitalization in school administration allows easier access for parents and students, reducing the administrative burden that previously had to be done manually. Information on students' grades or academic achievements can be accessed by parents through an application or portal managed by the administration. The school payment process becomes easier as it can be done through bank transfers or digital wallet applications. This not only increases efficiency but also provides convenience for busy parents. Administrative personnel play a role in ensuring that the entire system runs smoothly, managing any incoming data, as well as ensuring that the information is properly delivered to the relevant parties. This ease of access certainly increases parents' and students' satisfaction with school services.

10. Improving the Effectiveness of Academic Processes

Not only in the administrative aspect, administrative personnel also support the improvement of the effectiveness of academic processes in schools. In the digital era, many schools have adopted Learning Management System (LMS), where teachers and students can interact virtually. The use of LMS can increase the effectiveness of academic processes in an effective way (Fakhrudin et al., 2022). This LMS allows the management of teaching materials, exams, assignments, and attendance online. Thus, the teaching and learning process becomes more structured and accessible to all interested parties. In addition, the use of LMS also allows for better performance evaluation and increases student engagement in the learning process.

The role of administrators here is to assist in the management of the platform, ensuring that each student and teacher has proper access, as well as managing the academic data generated from the system. For example, test scores and assignments collected through the LMS will be managed by the administration and then integrated into the academic information system used by the school. In addition, in schools that use blended learning systems, administrators play an important role in coordinating between face-to-face and online teaching and learning processes. They are in charge of ensuring that schedules, classrooms, as well as technology infrastructure, such as internet connections and supporting devices, are ready for use by teachers and students.

11. Supporting the Implementation of the Internal Quality Assurance System

The implementation of an internal quality assurance system in schools is important to maintain the quality of education. Administrators have an important role in supporting the implementation of this system, especially through measurable and structured data management. Good data management can increase the effectiveness of the internal quality assurance system and help in data-based decision-making (Jannah et al., 2024). In the digital era, evaluating the quality of education can be done more easily, because administrative personnel can provide accurate data related to student achievement, school program effectiveness, and stakeholder satisfaction (parents, students, teachers). With information technology, the process of data collection and analysis becomes more efficient, allowing schools to better respond to the needs and expectations of all stakeholders (Mukhlisin et al., 2024).

These quality assurance systems usually cover several aspects, such as curriculum evaluation, financial management, facilities management and teaching quality. All of



these aspects require solid data and administrative support. With a digital system in place, administrators can provide this data quickly so that school management can make the necessary decisions to improve the quality of education. In addition, the digital system also enables real-time monitoring and reporting of quality achievements. Administrators can monitor the school's progress based on certain indicators set in the quality assurance system, such as student attendance, academic performance or parent satisfaction.

12. Data Security and Protection

In the digital era, data security is one of the important issues that must be considered by every institution, including schools. Considering that the data managed by administrative staff includes personal data of students, teachers, and parents, as well as academic and financial data, data security is very crucial. Protection of personal and sensitive data is essential to prevent misuse of information that can harm individuals and institutions. Good data security not only protects personal information but also ensures that institutions can operate efficiently without interruption from cyber threats. With the increasing number of cyberattacks, it is important for schools to implement proper security measures to protect the data they manage.

Administrators must ensure that any systems used to manage the data have adequate protections, such as data encryption, strict user authentication and reliable backup systems. They must also manage access rights to the data, ensuring that only authorized parties can access sensitive information. In addition, administrators need to understand the basics of cybersecurity and how to protect school data from cyberattacks, such as malware, phishing or hacking. Cybersecurity training is crucial in ensuring that administrators are always prepared for the potential risks that exist in the digital age.

13. More Detailed and Quicker Report Preparation

In the digital era, preparing school reports has become easier and faster with the help of software that can automate the process. Administrators play a role in preparing various reports, such as financial reports, academic reports and school performance reports, which are then used by school management for evaluation, audit or decision-making purposes. The use of school management software can improve the efficiency and accuracy of report preparation.

These reports can be generated faster and in more detail compared to manual processes. For example, financial reports can be generated from transaction data directly recorded in the system, without the need to go through an error-prone manual input process. Research shows that automation in the preparation of financial reports not only speeds up the process but also increases the accuracy of the data produced. Similarly, academic reports can be generated from student achievement data that is processed automatically in the school information system. The use of education management software enables more efficient management of academic data, so that reports can be prepared quickly and accurately.

14. Improving Collaboration between Educators and Administrators

One of the positive impacts of digitizing school management is the creation of better collaboration between educators (teachers) and administrative staff. A digital-based school management system allows for better synergy in terms of managing student data, learning schedules, and academic evaluations. The application of information technology in education management can improve communication and collaboration between various parties in schools (Maryani et al., 2023). With digital



systems in place, educators and administrators can share information in real-time, which supports faster, data-driven decision-making. It also allows for better integration between learning and administrative processes, creating a more effective learning environment (Tianlun, 2024).

For example, with an academic information system, teachers can directly input student grades or record attendance in one platform which is then managed by administrative personnel. The data can then be processed to create student achievement reports or for other evaluation needs. The academic information system can improve efficiency and accuracy in managing student data, thus speeding up administrative processes. This collaboration helps speed up administrative processes that previously took longer if done separately. With an integrated system, teachers and administrators can share information in real-time, which supports faster, data-driven decision-making.

Conclusion

The conclusions from the results and discussion above emphasize the transformative impact of digital technology on school management, particularly through the role of administrative staff. The integration of digital systems in school management significantly improves the efficiency and effectiveness of data handling. Administrative staff are critical in the transition from manual processes to automated systems, which streamlines operations and reduces workload. The ability to analyze comprehensive data enables school leaders to make informed decisions that are strategically aligned with institutional goals. This data-driven approach improves the quality of education policy and resource allocation. The role of administrative staff in providing accurate data is critical to implementing an effective quality assurance system. This ensures that schools can monitor their performance and respond to stakeholders' needs, thereby maintaining high educational standards. To effectively utilize technology, administrative staff must engage in continuous professional development and training. This commitment to upskilling ensures they are ready to face the challenges of the digital age. Through the use of technology, schools can better anticipate future needs, such as student enrollment and staffing requirements. This proactive approach positions schools to adapt to the changing educational landscape effectively. In summary, the conclusion underscores the critical role of administrative staff in leveraging technology to improve school management, enhance decision-making and ensure quality education, ultimately leading to better outcomes for students and the institution as a whole.

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