

The Involvement of School Administrative Staff in Harnessing Information Technology: A Systematic Literature Review

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ABSTRACT. This research aims to elucidate the challenges confronted by school administrative staff in the execution of their responsibilities and to identify avenues for enhancing their performance through the application of information technology. The chosen research methodology is a Systematic Literature Review (SLR) designed to recognize, evaluate, and interpret prior research findings. Out of 465 articles initially screened, 43 were meticulously reviewed for their relevance to the study's scope, with 18 articles ultimately included in this systematic literature review. The research findings underscore the pivotal role of information technology in providing student services by school administrative staff. Nevertheless, several issues surfaced post-implementation, including increased workloads, challenges related to coordination and communication, adaptations to policies and regulations, the utilization of technology and information systems, and issues concerning service quality and user satisfaction. Resolving these challenges necessitates identifying the staff's needs and competencies, offering suitable training and development opportunities, instituting a performance assessment system, enhancing accessibility and utilization of information technology, and sustaining ongoing monitoring and support.

Keywords: *Administrative staff, Information technology, Performance*

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INTRODUCTION

A school's success depends on managing its human resources, including providing services to the community in the school environment (Pusvitasari, 2021). One of the school's human resources is the school administration staff, who provide excellent service (Agustina, 2017). School administrative staff are often also called administrative staff, tasked with providing school administration services to educational customers (Maulana et al., 2021). The role of administrative staff is very important in maintaining the smooth implementation of teaching and learning activities according to school plans and objectives and supporting the efficiency of institutional tasks (Zakhiroh, 2013; Arisanti et al., 2020). However, in some schools, administrative staff in carrying out their work still use conventional technology, even though technological developments have penetrated the world of schooling (Triana et al., 2021; Sumarsono et al., 2021; Febriani et al., 2023).

School administration staff utilize information technology for educational creativity and innovation (Hamdani, 2019; Kristiawan & Muhaimin, 2019). Research conducted by Ahmad et al. (2018) Shows a direct correlation of 71.36% between information technology and the communication style of administrative staff. Shows a direct correlation of 71.36% between

information technology and the communication style of administrative staff. Likewise, the research results reported by Zaqout et al. (2018) show a correlation between information technology and administrative staff decision-making with a percentage of 64.99%. Thus, the role of school administrative staff has a statistically significant effect on using information technology to improve services.

School administrative staff face several resource constraints, such as limited funding and access to technology (Asio, 2021). These limited resources make it difficult for schools to purchase and maintain technological devices and provide necessary training for administrative staff. Additionally, school administrative staff's lack of understanding and skills can hinder technology adoption. If administrators do not master technology well, administrative tasks can be hampered or slowed down. Without technology, administrative processes can run slower and less efficiently (Ibrahim, 2018). As a result, the service provided to customers becomes less than satisfactory, often resulting in inappropriate language (Agustina, 2017). Öznacar and Dericioğlu's (2017) research highlights the importance of training and seminars for school administrative staff to overcome their fear of technology. Even in universities, administrative staff must undergo in-service training to improve their skills in using information technology (Kabakus et al., 2023). Most related studies use quantitative, qualitative, or mixed research methods. On the other hand, this research will focus more on reviewing scientific literature that specifically discusses the role of administrative staff, especially in the school context.

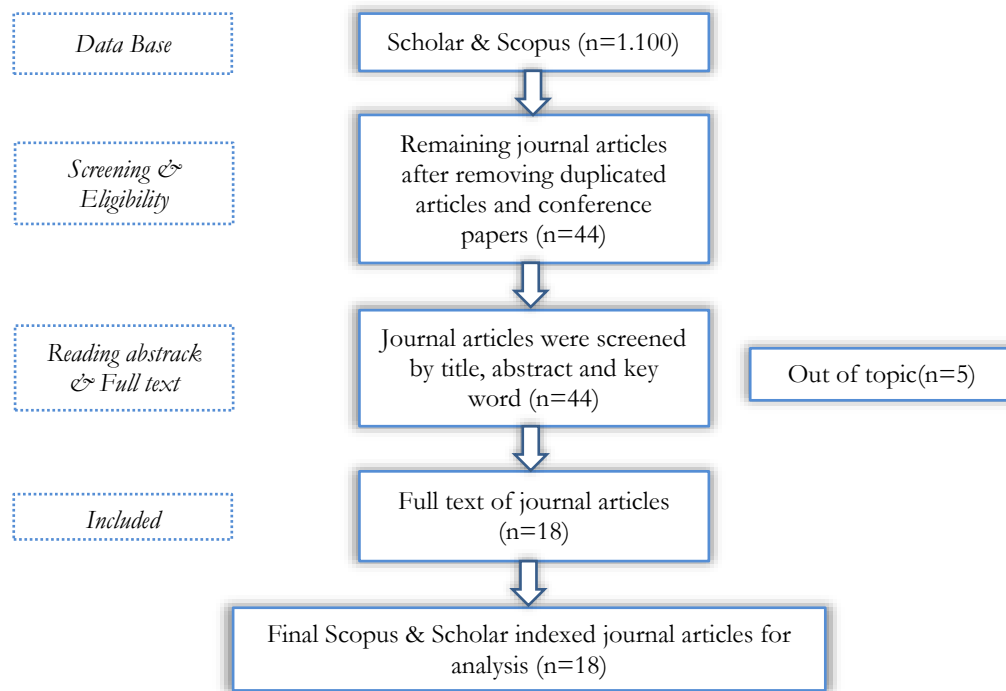
Based on this, there has been no research that reveals the challenges of school administration staff in improving their performance through the use of information technology. Therefore, this research aims to describe the challenges school administrative staff face in carrying out their duties and identify ways to improve their performance through information technology. This research investigates the skills of administrative staff in dealing with problems, with a particular focus on the challenges they face to improve programs that can meet these challenges.

METHOD

This study employs a Systematic Literature Review (SLR) methodology covering the last ten years to examine the development of the performance of school administrative staff based on technology. The study selects high-quality scholarly articles from indexed journals and Scopus journals. During development, literature is sought from scholarly bibliographic databases such as Scholar and Scopus. The application used is Publish or Perish, which helps identify relevant publications. The keywords used in the search are "development of administrative staff performance," "efficient administrative staff performance," "integrated administrative staff performance," and "IT-based administrative staff" as search terms. The publication years range from 2013 to 2023. The ten-year span corresponds to the widespread adoption of technology during that period and aligns with the journal requirements, necessitating references from at least the past ten years.

This study conducts result screening and selects high-quality publications through inclusion and exclusion criteria for data. Four inclusion criteria are applied in this study. First, the research period encompasses articles published between 2013 and 2023. Second, the research focuses on textual analysis related to the challenges faced by administrative staff in performing their tasks and methods for developing integrated administrative staff performance. Third, included articles are those published in peer-reviewed journals, excluding review papers, conference papers, book chapters, unpublished theses, literature reviews, and secondary data analyses. Lastly, this research employs a textual analysis approach encompassing quantitative and qualitative methods. As for data exclusion, there are four criteria: (1) The research was conducted before January 2013, prior to that year; (2) The study does not involve textual analysis; (3) The study deals with productive discourse such as speaking; and (4) The research is not a peer-reviewed review article.

In the processing phase, the researcher filtered titles, abstracts, and keywords and decided whether an article should be included in the data analysis based on inclusion criteria. If deciding was challenging, the entire article was read before deciding. The initial keyword search yielded 465 articles. After removing irrelevant articles according to inclusion and exclusion criteria, 43 remained. Subsequently, these 43 articles were re-examined to determine their relevance within the scope of the research. Finally, 18 articles were included in this systematic literature review.



Picture 1: The selection process in this study

RESULT AND DISCUSSION

Result

Based on the results of the SLR study regarding administrative personnel and information technology, data was obtained as depicted in Table 1 below.

Table 1: An Overview of Administrative Staff and Information Technology

No	Authors	Publication Source	Method	Sample	Data Collection	Results
1.	Syarah et al., 2013	Eksplora Informatika	Qualitative	Staff, teacher attendance system	Interviews	Schools need to improve how they deliver information by utilizing information systems, improving students' learning skills, and using technological developments, especially information technology, in teaching and learning. Information systems are expected to help schools stay relevant and perform their tasks more efficiently and effectively.
2.	Yusniar, 2015.	Jurnal Visi Ilmu Pendidikan	Qualitative	Principal, administrative staff	Interviews	They are supporting the principal's performance in order to maximize services in the field of student administration.

3.	Rahmayu, 2015.	Jurnal Khatulistiwa Informatika	Qualitative	Administrative staff	Interviews	The design of the information system facilitates student administration.
4.	Chan, 2017.	Jurnal Bisnis Corporate	Qualitative	Administrative staff	Interviews	Maintenance and organization of archives are done by replacing archives when the container is deemed to have reached its maximum capacity. Certificates are given for damaged archives. The process of shrinking and destroying archives has never been done because archives are considered essential documents for educational institutions.
5.	Amirudin, 2017.	Al-Idarah: Jurnal Kependidikan Islam	Qualitative	Administrative staff	Interviews	In order to provide optimal administrative services, an educational institution or unit needs to comply with established rules and regulations. In order to ensure that every school can carry out educational activities properly, it is crucial to have a school administration guide that can be used as a guideline in managing the administrative components of education in various units, types, and levels of education.
6.	Sari, 2018.	Tarbiyah Wa Ta'lim: Jurnal Penelitian Pendidikan & Pembelajaran	Qualitative	Administrative staff	Interviews	Implementing work discipline on the administrative staff at MTs Labbaik Samarinda looks very organized. The head of the madrasah can implement work discipline on the administrative staff who work there. Work discipline includes adherence to time, good use of office equipment, high responsibility for work, and compliance with office regulations.
7.	Yusron, 2019.	Jurnal Education and development	Action research	Administrative staff	Observation, interviews documentation	The improvement of the ability of Administrative Staff (TU) in Archives Management occurred through the implementation of managerial supervision at Madrasah Tsanawiyah Swasta Darul Istiqomah Padangsidempuan. These improvements can be observed from the assessment results in cycle II, which experienced a significant increase from cycle I supervision, from 68.6% to 87.2%. Implementing managerial supervision improved the Administrative Staff's (TU) ability at Madrasah Tsanawiyah Swasta Darul Istiqomah Padangsidempuan's ability to manage archives more efficiently. Thus, implementing managerial supervision improved the Administrative Staff's (TU) performance in managing records.
8.	Sherlywaty, 2019.	Jurnal Imiah Manajemen Pendidikan Program Pascasarjana	Qualitative	Administrative staff	Interviews	Administration of content standards, process standards, assessment standards, graduate competency standards, administration of curriculum, and syllabus following Permendikbud No.24 of 2008 concerning School Administrative Personnel Standards.
9.	Elviera et al., 2019.	Jurnal Pendidikan, Sejarah dan Ilmu Sosial	Qualitative	Administrative staff	Interviews	Advances in information technology have a significant impact on office work due to the use of advanced information technology. School administration tasks can be done quickly and efficiently thanks to information technology.
10.	Nurussalmi, 2022.	Jurnal Intelektualita	Qualitative	Administrative staff	Interviews	The head of administration can improve the quality of administrative services, seen from physical evidence, reliability, responsiveness, assurance, and empathy. In all these aspects, the performance of the head of administration is categorized as very good.

11.	Arisasanti et al., 2020.	Jurnal Professional	Qualitative	Principal, administrative staff, education personnel, teachers	Interviews	The administrative staff at SMAN 1 Bengkulu Tengah has demonstrated exemplary work quality. The administrative staff shows strong potential, optimal work results, effective work processes, and high enthusiasm for their duties.
12.	Kurniawan & Dzikri, 2022	Kacaneegara Jurnal Pengabdian Pada Masyarakat	Qualitative	Administrative staff, teachers	Interviews	Through the training programs that have been implemented, teachers and administrative staff have been given adequate knowledge and skills in using ICT tools such as MS Office Word and Excel. This ability is beneficial in supporting correspondence activities, financial reporting, and using printers to print various types of report documents with different variations.
13.	Santoso et al, 2021.	Studia Manageria	Qualitative	Administrative staff	Interviews	In MTs Darul Jannah Muara Burnai II, administrative governance is carried out through planning and improving services by madrasah administrative managers. This case is done by analyzing the needs of madrasah residents at the end of each semester.
14.	Evi, et al. 2021.	Journal on Early Childhood	Qualitative	Administrative staff	Interviews	Renewal efforts in administration included improvements in administration and upgrading facilities such as procurement of computers for data processing and training in Microsoft Excel.
15.	Cahyani & Oktafian 2021.	Ngabdimas: Jurnal Pengabdian Kepada Masyarakat	Qualitative	Administrative staff	Interviews	The service program has been implemented for all administrative staff at Bina Tama Junior High School by providing training in recording correspondence archives using technology, such as using a database with the help of correspondence information archiving applications. This program will result in more organized archive organization and fast and accurate information management. Database design is done using the Microsoft Access application.
16.	Ente et al., 2022	Formosa Journal of Applied Sciences	Qualitative	State civil apparatus sub-division of administration	Interviews	The performance of State Civil Apparatus (ASN) employees in the Administration Subdivision of the General Protocol and Communication Section of the Regional Secretariat of Bone Bolango Regency still needs to be improved to reach an optimal level.
17.	Wisesa & Hariyati, 2022	Jurnal Inspirasi Manajemen Pendidikan	R&D	Administrative staff, teachers, students	Questionnaire	The website-based information system at SD Negeri Asemrowo 2 Surabaya received an outstanding assessment and was well received by the school.
18.	Mustopa, 2022	Jurnal Pusdansi	R&D	Administrative staff, school employees	Questionnaire	Internal control and benefits affect the performance of Bandar Lampung administrative employees.

Discussion

Administration in the context of education can be deconstructed into two key elements, namely "Tata" and "Usaha." The word "tata" refers to a specific set of rules or procedures that must be followed, while "usaha" refers to an individual's ability to achieve a specific goal (Tim Redaksi KBBI, 2000). Although often called "governance," this concept still focuses on managing and implementing administrative activities within the school environment (Puardi, 2018). In more detail, "Tata Usaha" in the school context covers a wide range of activities, such as the organization

of the teaching and learning process, student management, school staff management, facilities and infrastructure maintenance, financial administration, and data management (Santoso et al., 2021). In addition, Gunawan et al. (2018) emphasizes the vital role of administration in managing school correspondence, administration regarding students, management of teaching and education personnel, and curriculum governance. The goal of such management is to achieve an optimal level of quality in school management.

The competencies that must be possessed by administrative staff are regulated in the Regulation of the Minister of National Education of the Republic of Indonesia in 2008: (1) Personality competence includes high integrity and morality, a solid commitment to work, the ability to control oneself, high self-confidence, adaptability, accuracy, orderliness, creative and innovative abilities, and a sense of responsibility. (2) Social competence, namely the ability to collaborate efficiently in teams, provide quality services, have an awareness of self-organization, communicate effectively, and have skills in building positive working relationships and, (3) Technical competence refers to skills related to the domain that is the main focus of organizational tasks (Lendi & Adi, 2023; Qurtubi, 2019; Sulistiyono, 2022). Such competencies are essential to ensure the effectiveness and efficiency of the organization's operations while considering the interests of all parties involved. These competencies include setting up processes, policies, and practices related to the management and governance of the organization.

The role of school administration can be done efficiently and simply thanks to advances in information technology that significantly impact office work (A. O. Ibrahim et al., 2020; Nurfadilah, 2017). Information technology can be used in various aspects of school administration work. *First*, handling letters and making reports, microcomputers that function as word processors make it easier and faster to make reports and letters with word processing programs. In managing the administrative process, planning includes preparing the syllabus format, lesson plans, and learning outcomes assessment and providing monitoring tools for the learning process. In the planning stage, the objectives to be achieved, who is responsible for implementing these activities, the implementation schedule, and the importance of planning an evaluation system are also determined (Sherlywaty, 2019). *Second*, communication of school members advances in telecommunication technology facilitate communication within the school organization, enabling effective relationships vertically, laterally, horizontally, and diagonally. *Third*, mail delivery advances in information technology have made it possible to send mail remotely via email, replacing traditional methods such as telex, fax, and computer-to-computer communication. Administrative staff documents various types of documents in order to plan the administration of the graduate competency standards. These documents include the results of structured assignments, student work, clippings, activity reports, discussion reports, photographs of activities, and achievement documents (Sherlywaty, 2019). *Fourth*, in archival management, microcomputers provide essential assistance in archiving. Archival storage that used to require paper warehouse space can now be done through CDs, diskettes, or flash drives, saving space. A computer network system with a central computer and organizational units connected in a stellar network allows efficient data access and use (Elviera et al., 2019). Archives are essential in providing services to interested parties and information for planning, decision-making, monitoring, and other organizational needs. In an archiving system, several key factors contribute to optimizing its implementation, including human resources, archive storage facilities, and financial resources (Yusron, 2019).

In carrying out their duties, school administrative staff face several challenges related to high workload, coordination, and communication, changes in policies and regulations, the use of technology and information systems, and service and user satisfaction (Chan, 2017). In Indonesia, the duties and responsibilities of administrative staff are very complex (Najewan et al., 2021; Setiawan, 2019; Zulkarnain & Sumarsono, 2015). So they must be multifunctional, which can cause them to feel overwhelmed in carrying out their duties. Meanwhile, in Western countries, the role of administrative staff is more focused on file handling, student services, and regulations (Lamptey

et al., 2020). Therefore, administrative staff in Western schools tend to be more specific in their duties, meaning they can carry out their tasks more effectively.

With this in mind, administrative staff in Indonesia must consolidate their duties and responsibilities. In today's modern era, understanding and mastering information technology is also very relevant for administrative staff. When an employee is absent or absent, their duties should be handled by other coworkers. While efforts are made to ensure an appropriate return time, tasks often need to be completed, which may result in a slight delay in the return time (Sari, 2018). School administrative staff face several challenges in carrying out their duties, including high workload, coordination and communication, policy and regulations changes, technology and information systems use, and user service and satisfaction (Chan, 2017). Overcoming these challenges requires good time management skills, practical communication skills, flexibility in the face of change, adaptation to technology, and a focus on providing quality services.

There are several challenges faced by school administrative staff based on scientific literature that discusses administrative staff, which are as follows: (a) high workload: administrative staff often have diverse responsibilities and involve many tasks to complete, such as financial administration, student data management, and timetabling. The high workload can be a challenge in managing time and prioritizing these tasks (Santoso et al., 2021); (b) coordination and Communication: administrative staff need to coordinate with various parties in the school, including teachers, students, parents, and other administrative staff. Challenges can arise in maintaining effective communication and ensuring coordination between the various parties (Sari, 2018); (c) policy and regulation changes: schools often face changes in policies and regulations that may affect the duties and responsibilities of administrative staff. This challenge involves understanding and adapting to such changes and ensuring compliance with new policies and regulations (Yusniar, 2016); (d). use of information technology and systems: the development of information technology impacts how administrative staff work. Challenges may arise when adjusting to school information systems, maintaining electronic data, and training technology; and (e) service and user satisfaction: administrative staff are responsible for providing services to students, parents, and other parties associated with the school. Challenges may arise in maintaining user satisfaction, handling complaints, and ensuring efficient and responsive service.

Based on this, the challenges faced by administrative staff in Indonesia can be considered complex, considering that they have various responsibilities and must meet high competency standards. Therefore, administrative staff has a vital strategic importance, especially in the context of changes in school policies and regulations. In addition, administrative staff must also provide excellent services to education stakeholders. The importance of these aspects has been identified in previous studies.

After knowing the challenges of administrative staff in Indonesia, the following ways can be identified to develop the role of information technology-based administrative staff. (1) *Identification of Needs and Competencies*: The first step in developing the performance of information technology-based school TU staff is to identify the needs and competencies required. This step can be done by conducting a job analysis and identifying the roles and responsibilities of TU staff related to information technology. The following steps can be better determined by understanding the needs and competencies required (Nurussalami, 2021). (2) *Provision of Training and Development*: After identifying needs and competencies, the next step is to provide appropriate training and development. Training can include technical aspects such as hardware and software maintenance, network management, and information security. In addition, training can also be provided in terms of management skills, such as project management and effective communication. It is important to select training that is relevant and appropriate to the needs of TU staff so that they can develop the necessary competencies (Kurniawan & Dzikri, 2022). (3) *Implementation of a Performance Evaluation System*: It is crucial to have a transparent performance evaluation system to develop the performance of school administrative staff. This system may include regular appraisals based on

pre-established criteria. The performance evaluation should include indicators related to the tasks the information technology-related administrative staff assumed. By having an effective performance evaluation system, management can provide helpful feedback to the TU staff to help them improve their performance. (4) *Improving access to and Use of Information Technology*: Developing the performance of information technology-based school TU staff also involves improving their access to and use of information technology in their work environment. This performance can be achieved by providing adequate information technology equipment and infrastructure, such as up-to-date hardware and relevant software. Regarding information technology, it is crucial to provide sufficient training and support so that the administrative staff can use it efficiently to carry out their tasks (Wisesa & Hariyati, 2022; Adamu et al., 2017). (5) *Continuous Monitoring and Support*: The final step is to ensure continuous monitoring and support in developing the performance of information technology-based school administrative staff. Monitoring can be done through regular performance monitoring, feedback from information technology users, and periodic evaluations. In addition, continuous support can be provided through advanced training, online resources, and collaboration among administrative staff (Nurussalami, 2021).

CONCLUSION

Administrative staff in schools are crucial for managing administrative processes and services. Information technology can improve efficiency and effectiveness by facilitating communication, electronic filing, and electronic systems. However, challenges like high workload, policy changes, and user satisfaction must be addressed. To improve staff performance, identify needs, provide training, implement performance evaluation systems, enhance access to technology, and provide continuous monitoring and support. This approach can enhance overall school management and provide better services to students and parents.

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