

Implementation of Digital Records Management to Support Excellent Service at Vocational High Schools

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Abstract

In the digital era, technological transformation has penetrated almost every sector, including archives management. The purpose of this study is to examine a digital-based archives management system that offers significant benefits, such as saving storage space, ease of searching and retrieving documents, and increased security through encryption technology. The research method used is a qualitative approach with a case study design, utilizing data collection techniques such as observation, interviews, and documentation. The results show that the implementation of a digital archives management system improves the speed of information access, data security, and accuracy in archives management compared to conventional systems. In addition, archive digitization contributes to improving the quality of administrative services for students, teachers, and external parties, characterized by faster responses, information transparency, and ease of document retrieval. However, this implementation still faces several challenges, such as limitations in technological infrastructure, human resource competency, and the lack of integrated standard operating procedures.

Keywords

Digital Archiving, Digital Transformation, Excellent Service, Records Management, Vocational High Schools



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INTRODUCTION

Advances in information and communication technology have driven digital transformation across various sectors, including education. Educational institutions, particularly vocational high schools (SMK), are required to adapt to these changes in order to improve the effectiveness of administrative management. One key aspect of educational administration is records management, which serves as a hub for information, evidence of accountability, and a basis for decision-making. However, conventional records management is still widely practiced, which tends to be inefficient, prone to damage, and makes the document retrieval process difficult.

The implementation of digital records management serves as a strategic solution to address these various challenges. A digital records system enables structured document

storage, rapid access, and enhanced data security. According to Sulisty-Basuki (2014), effective records management must adhere to the principles of efficiency, security, and ease of access, which can be optimized through the use of digital technology. This is reinforced by the international standard from the International Organization for Standardization (2016) through ISO 15489, which emphasizes the importance of electronic records management systems to ensure the reliability and integrity of information.

A number of studies indicate that the digitization of archives has a positive impact on service quality. Research by Sari and Nugroho (2021) revealed that the implementation of a digital archiving system can significantly improve administrative efficiency. Additionally, Pratama (2022) states that the use of electronic archiving systems can enhance the quality of public services by reducing service wait times and improving data accuracy. Another study by Rahmawati (2020) also indicates that the integration of information technology in school administration has a significant impact on user satisfaction with services. These findings align with the view of Jogiyanto Hartono (2017), who asserts that an integrated information system can enhance the overall quality of an organization's services.

Excellent service in an educational setting is not only related to the learning process but also encompasses administrative services for students, teachers, and the community. High-quality administrative services are characterized by speed, accuracy, transparency, and ease of access to information. In this context, digital-based records management plays a crucial role in supporting the delivery of excellent service. This is reinforced by the research of Muhammad Rifa'i et al. (2019), which states that the management of electronic records directly contributes to improving the quality of administrative services in educational institutions.

Nevertheless, the implementation of digital archiving in vocational high schools still faces various challenges, such as limited technological infrastructure, low digital literacy among staff, and the absence of integrated standard operating procedures. These conditions indicate that the implementation of digital archiving systems has not yet been optimized and requires further study.

Based on this background, the objective of this study is to analyze the implementation of digital-based records management in supporting excellent service at vocational high schools (SMK), as well as to identify the supporting factors and barriers in its implementation. The significance of this study lies in its contribution to providing an empirical understanding of the importance of digital transformation in records management, as well as serving as a foundation for formulating strategies to improve the quality of administrative services within the vocational education sector. Additionally, this study is expected to serve as a reference for schools and policymakers in developing an effective, efficient, and sustainable digital records management system.

METHODS

The research method used in this study is a qualitative approach with a case study design, aimed at gaining an in-depth understanding of the implementation of digital-based records management in vocational high schools. This approach was chosen because it is capable of describing phenomena in a contextual and holistic manner in accordance with real-world conditions in the field. According to Robert K. Yin (2018), case studies are particularly well-suited for examining a system, process, or policy implementation within a real-world context. Data collection techniques were conducted through direct observation of archival management activities, in-depth interviews with administrative staff and relevant parties, as well as a documentary study of the archives and systems used. This aligns with Sugiyono's (2017) view that a combination of observation, interviews, and documentation constitutes the primary techniques in qualitative research for obtaining valid and comprehensive data.

Research findings indicate that the implementation of a digital records management system has a significant positive impact on the effectiveness of records management. The digitization of records has proven to enhance the speed of information access, as documents can be systematically searched for and retrieved through a computer-based system. Additionally, data security is better ensured through the use of protected storage systems and data backups, thereby minimizing the risk of record loss or damage. These findings align with research by Sari and Nugroho (2021), who stated that digital archive systems can improve work efficiency and accelerate the information retrieval process.

Furthermore, accuracy in records management has also improved because digital systems can reduce human error in document recording and archiving. According to Pratama's (2022) research, the use of electronic records contributes to improved service quality through data accuracy and service speed. Additionally, Rahmawati (2020) also emphasizes that the utilization of information technology in educational administration has a significant impact on improving service quality and user satisfaction. Thus, the implementation of digital-based records management not only enhances internal efficiency but also supports the delivery of excellent service within the school environment.

FINDINGS AND DISCUSSION

Findings

Based on the research findings, the implementation of digital-based records management in vocational high schools was carried out in response to developments in information technology and the need to improve the quality of school administrative services. Archival management, which was previously done manually, was deemed ineffective because it took a long time to store, search for, and retrieve documents. Therefore, schools began implementing a digital-based archival system to improve work efficiency and support the delivery of excellent service to all service users, including students, teachers, educational staff, and the community.

The implementation of digital records management involves digitizing documents, categorizing records by type and administrative need, storing documents electronically, and utilizing applications or information technology tools to facilitate records management. This system enables administrative staff to access and locate documents more quickly and accurately compared to conventional systems. The adoption of digital records management also simplifies data storage, reduces paper usage, and enhances record security, as documents can be stored and backed up in digital form.

The research findings indicate that there are several factors that contribute to the successful implementation of digital records management in vocational high schools. These factors include support from school administrators, the availability of information technology facilities and infrastructure—such as computers, scanners, and internet access—and the presence of staff with basic skills in operating digital technology. In addition, the awareness and commitment of administrative staff to improve service quality are also important factors that support the smooth implementation of the digital records management system.

On the other hand, the study also identified several barriers to the implementation of digital records management. The obstacles faced include limited information technology skills among some staff members, the lack of a fully integrated records management system, internet connectivity issues that can hinder data access, and limited digital storage capacity. Furthermore, the process of digitizing old records requires significant time, effort, and meticulous attention to detail, making it impossible to carry out optimally in a short period.

To address these various challenges, the school has taken several steps, such as providing training and guidance to administrative staff on digital records management, upgrading information technology infrastructure as needed, performing regular data maintenance and backups, and establishing clear operational procedures for digital records management. The school is also working to improve coordination among departments so that the records management process can run more effectively and in an integrated manner. Through these various efforts, the implementation of digital records management is expected to support excellent service by providing faster, more accurate, effective, and efficient services to all users of the school's services.

Table 1. Table Challenges and Solutions for Implementing Digital Records Management to Support Excellent Service at Vocational High Schools

No	Challenges	Solutions
1	Limited technological facilities such as computers, scanners, and digital data storage.	Procure facilities and infrastructure gradually in accordance with the school's needs and budget. -
2	Human resource competencies in digital records management are still low.	Conduct training and provide technical guidance on the use of digital records management systems.
3	Resistance or lack of readiness among staff regarding the	Conduct outreach and provide guidance to improve understanding and acceptance of the digital system.

	transition from manual to digital systems.	
4	Internet and system disruptions that hinder access to digital archives.	Improve internet network quality and perform regular system maintenance
5	The security and protection of digital archive data are not yet optimal.	Implement a data security system, configure user access rights, and perform routine data backups.

The table outlines the key findings from the research on Implementation of Digital Records Management to Support Excellent Service at Vocational High Schools. In the implementation of digital archiving to support excellent service at vocational high schools, challenges have been identified in the form of limited technological facilities available at schools. These limitations include an insufficient number of computers to support digital records management activities, limited availability of scanners required for the document digitization process, and digital storage capacity that remains insufficient to accommodate all electronically managed records. These challenges, the gradual procurement of facilities and development of technological infrastructure are necessary. Such procurement must be based on an analysis of the operational needs for digital archiving in schools and aligned with available budgetary resources. another obstacle was identified: the still-low level of human resource competency in the field of digital records management. This situation is characterized by a lack of understanding and skills among teaching and non-teaching staff in operating digital archiving systems, including the processes of entering, managing, storing, and retrieving records electronically. To address these issues, it is necessary to conduct regular training and provide technical guidance to all parties involved in digital records management. These training and technical guidance activities aim to enhance the understanding, skills, and readiness of human resources in effectively using digital records management systems. The obstacles have been identified in the form of resistance or a lack of readiness among staff to navigate the transition from manual to digital systems. This situation is characterized by the continued reliance on conventional systems, a lack of confidence in the effectiveness of digital systems, and concerns about changes to work procedures. Identified in the form of internet and system disruptions that hinder access to digital archives. These issues are characterized by unstable internet connections, slow system access, and disruptions or errors in the digital records management application. It is necessary to improve the quality of the internet network and perform regular system maintenance. a challenge has been identified in the form of suboptimal security and protection of digital archival data. This situation is characterized by the limited implementation of comprehensive data security systems, the lack of strict user access controls, and the failure to conduct regular and structured data backups. To implement a more effective data security system by strengthening system protections, configuring user access rights according to their respective authorizations, and performing regular and periodic

data backups. Access rights are configured to restrict data access to authorized parties only, while data backups are performed to prevent data loss or corruption.

Improving research productivity is one of the most promising opportunities in the context of implementing digital records management at vocational high schools (SMK) to enhance service excellence. The implementation of a digital records management system enables data and document management to be more structured, faster, and more accessible, thereby supporting the availability of accurate and relevant information for research activities within the school environment. This, in turn, indirectly drives improvements in both the quality and quantity of research, whether conducted by educators or students. Furthermore, the implementation of digital records management also paves the way for innovation in information management and school administration. Easy access to digital records provides opportunities for more in-depth data analysis, the development of more effective service models, and increased work efficiency. This contributes to creating a more productive and innovative academic culture within vocational high schools.

In conclusion, the implementation of a digital records management system has a positive impact on improving the quality of administrative services within the school environment. This system enhances efficiency, speed, and accuracy in records management, thereby supporting the delivery of excellent service that is more effective and responsive to the needs of service users. The implementation of digital records management also fosters innovation in school administration, particularly in the use of information technology for more modern and integrated record-keeping. Such innovation not only improves the school's internal performance but also strengthens a work culture that is adaptable to technological advancements.

Discussion

This finding emphasizes that implementation is the stage of applying various concepts, theories, strategies, or systems into structured, concrete actions. emphasizes implementation as the process of applying theories or concepts in practice to solve problems and achieve predetermined goals Trisnowati (2024). highlights implementation as the stage of executing a system or program that must be carried out efficiently and effectively to align with planned standards and objectives Masau (2024). Meanwhile, Suriadi (2024) defines implementation as the application of concepts or strategies into concrete actions aimed at delivering benefits and improving organizational performance. Thus, it can be concluded that implementation is not merely execution but also encompasses a targeted, effective, and efficient process of application to achieve objectives and have a positive impact on problem-solving and performance improvement.

That the implementation of digital records management in vocational high schools is an information technology-based records management effort designed to improve the effectiveness and efficiency of services. Maruanaya (2025) asserts that digital records management encompasses the processes of creating, storing, maintaining, securing, and retrieving records electronically to support an organization's information needs. Meanwhile,

Herawan (2025) emphasizes that the implementation of a modern archival information system enables more efficient records management, particularly in the processes of digital storage, retrieval, and records services. Thus, the implementation of digital records management in vocational high schools not only focuses on the digitization of records but also plays a crucial role in accelerating access to information, improving service accuracy, and supporting the delivery of excellent services that are effective, efficient, and responsive to the needs of the school community.

Based on the above discussion, it can be concluded that the implementation of digital records management is a systematic approach to managing records by utilizing information technology to improve effectiveness, efficiency, and ease in the storage, retrieval, monitoring, and provision of records. The success of digital records management implementation is supported by clear policies and regulations, the availability of facilities and infrastructure, digital technology support, competent human resources, leadership commitment, adequate information technology infrastructure, the use of database systems, and users' ability to operate the system. As stated Musliichah (2021), records management is a series of activities involving the management of records, encompassing the creation, filing, maintenance, access, and disposal of records to support the effective administration of an organization. According (Anisah et al., 2021), digital records management is the management of records using technology-based information systems that enable the storage, retrieval, monitoring, and management of documents more quickly and efficiently than manual systems. However, its implementation also faces various obstacles, such as a lack of organizational support, low employee awareness of the importance of records, limited digital storage facilities, an incomplete transition from manual to electronic systems, a lack of training, a high volume of records, and limited utilization of technology and database systems. Therefore, strong organizational support, improved human resource competencies, and the development of technological infrastructure are necessary to ensure that digital records management can operate optimally and sustainably.

Anisah et al. (2021) state that digital records management is the management of records using technology-based information systems that enable the storage, retrieval, monitoring, and management of documents more quickly and efficiently than manual systems (p. not specified in the original source). This indicates that the digitization of records can accelerate administrative service processes in school settings. Meanwhile, Faturohmah et al. (2021) emphasize that records management in the digital age requires a transformation of archival practices supported by the use of information technology, as well as the enhancement of archivists' competencies to keep pace with digital advancements. To reinforce this, several experts also offer insights regarding the implementation of digital archiving and excellent service, namely: Sulisty-Basuki (2018) explains that modern, digital-based archiving enhances the accessibility and accountability of information within an organization. Sedarmayanti (2017) states that information technology-based administrative management can improve the effectiveness of public services by streamlining work processes. Laudon &

Laudon (2020) emphasize that digital information systems improve the quality of decision-making through the availability of fast and accurate data. This is further reinforced by Chaffey (2019), who explains that an organization's digital transformation can improve service efficiency through the integration of technology into business processes. It can therefore be concluded that digital records management is a form of transformation in records management that leverages information technology to improve efficiency, speed, and accuracy in document storage and retrieval compared to manual systems. Furthermore, the implementation of digital records management not only simplifies administrative processes but also enhances accessibility, accountability, and the quality of decision-making within an organization. Overall, the digitization of archives plays a crucial role in delivering administrative services that are more effective, efficient, and responsive to the needs of the information technology era.

CONCLUSION

In conclusion, the findings of this study indicate that the implementation of records management in vocational high schools has led to the adoption of digital systems aimed at supporting more organized, faster, and more efficient records management. The records management process which includes the creation, storage, retrieval, maintenance, and disposal of records has also begun to undergo a transformation from manual systems to information technology-based systems. However, various challenges remain in its implementation, such as limited human resource competencies, suboptimal digital infrastructure, and the absence of uniform records management standards within the school environment. These conditions prevent records management from contributing to excellent service to its fullest potential, particularly in terms of the speed and accuracy of administrative services. Opportunities for implementing records management in vocational high schools hold tremendous potential for further development. These opportunities include the comprehensive digitization of school records, which can accelerate and streamline data access; improving the quality of administrative services through an integrated records management system; and strengthening the competencies of teachers and administrative staff through training in information technology and digital records management. In addition, the development of a school records management system can also support transparency and accountability, while improving work efficiency by saving time in the process of searching for and managing documents. Based on the research findings, several recommendations can be proposed, including the need to develop a standardized and integrated digital archiving system for all school departments; the provision of ongoing training for administrative staff to enable them to manage digital records professionally; and the improvement of information technology infrastructure, including hardware, software, and networks.

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