Analysis of Electronic Document Management System (EDMS) Implementation at Company X

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Abstract
This study aims to analyze the implementation and challenges of using Electronic Document Management System (EDMS) in improving operational efficiency and productivity within an organization. Through observations of four participants from different departments, it was found that the adoption of EDMS facilitated document management, sped up data retrieval, and enhanced work efficiency. However, several challenges were also identified, such as the reliance on physical documents, compatibility issues with other applications, and concerns regarding the security of digital data. The study also highlighted that while the EDMS is equipped with good security features, technical issues, such as network problems, still affect user comfort. Therefore, organizations need to enhance employee training, upgrade IT infrastructure, and continuously develop system features to maximize the benefits of EDMS implementation. These findings contribute to organizations by optimizing the use of digital technology for document management and improving work productivity.

Keyword: Document Accessibility; Electronic Document Management System; Security

1. Introduction

The rapid pace of digitalization has brought about significant advancements in various aspects of business management. One crucial yet often overlooked aspect is document management. Many companies still rely heavily on traditional paper-based document management systems. These systems are time-consuming, particularly in document retrieval, and the volume of documents continues to grow annually.

With the development of information technology, Electronic Document Management Systems (EDMS) have emerged as a solution to enhance operational efficiency in companies. Digital document management systems enable organizations to store, manage, and share documents electronically. Despite the vast potential benefits of EDMS, its implementation across various companies remains inconsistent. Traditional document systems are still preferred because physical documents are often regarded as authentic legal evidence.

An Electronic Document Management System (EDMS) is a system used for electronic document management. It encompasses processes such as document creation, storage, retrieval, and archiving in digital formats. With EDMS, companies can reduce paper usage, improve work efficiency, and ensure the security and accessibility of critical documents. These systems typically include features such as document search, version control, and access management, facilitating collaboration and efficient information management.

The author conducted pre-research by distributing questionnaires to 12 employees at Company X to gather their opinions on the use of EDMS. The results revealed that all respondents, constituting 100% of the surveyed employees, agreed that EDMS significantly contributes to improving their work productivity. They stated that EDMS has made document management more efficient, accessible, and well-organized. Additionally, the employees experienced reduced time spent searching for required documents, allowing them to focus on more urgent tasks. The implementation of EDMS not only simplified their daily tasks but also enhanced their overall job satisfaction. These findings indicate that EDMS plays a crucial role in improving the operational effectiveness and efficiency of Company X.

Figure 1. 1 Pre-research 1

Source: Data compiled by the author (2024)

Figure 1.1 illustrates that all employees at Company X acknowledged EDMS as a tool that enhances their productivity. Furthermore, the author posed additional questions to all employees, with the results presented in Figure 1.2.

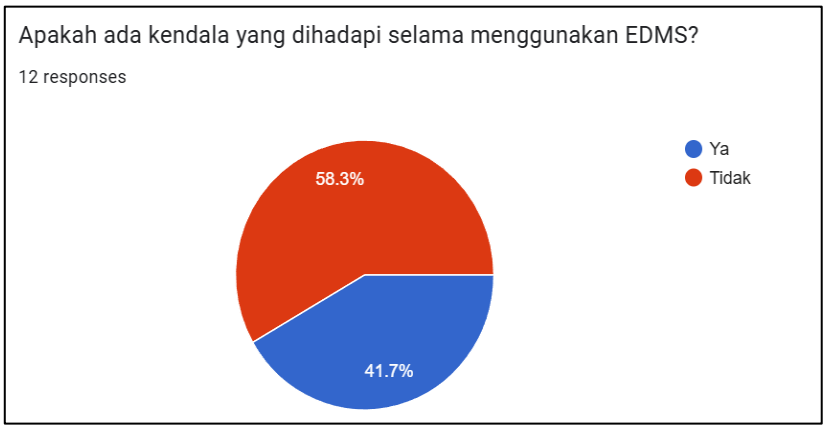

Figure 1. 2 Pre-research 2

Source: Data compiled by the author (2024)

Figure 1.2 shows that 41.7% of employees experienced difficulties while using EDMS, while 58.3% reported no issues. Based on these pre-research findings, it can be concluded that EDMS has significantly helped employees improve their productivity. However, alongside the convenience offered by EDMS, some challenges persist. A portion of employees at Company X reported difficulties in using EDMS due to the limited integration of the system and reliance on physical documents. Consequently, decision-making processes were hindered, potentially impacting document quality.

This aligns with the theory proposed by Gibson, which states that electronic archive management in Indonesia has met all necessary indicators. These indicators include aspects such as security, accessibility, searchability, and storage efficiency. Nevertheless, in practice, electronic archive management still encounters various challenges that hinder the optimization of these systems.

This study, the author focuses on analyzing the use of EDMS in document management. The research aims to analyze the implementation process of EDMS in document management, identify challenges faced in using EDMS, and examine the features that are beneficial for employees in improving document management. Through a review of literature, observation of document management activities, and interviews with EDMS users, this study will identify factors influencing the success of EDMS implementation in Company X.

2. Literature Review

2.1 Theory

The Electronic Document Management System (EDMS) is a centralized system used to store, organize, retrieve, and manage electronic documents. EDMS enhances efficiency by automating document-related tasks. Furthermore, it ensures the security and accessibility of documents. This system helps reduce paper consumption and supports a more sustainable approach to document management (Abacı, 2022). EDMS is a modern alternative widely adopted by various companies today, as it is considered more efficient than conventional document management, which relies on physical files.

Using an EDMS offers many advantages compared to conventional systems. First, EDMS significantly saves time and costs. With EDMS, documents can be accessed and shared quickly without having to search through stacks of paper. This not only saves employees' time but also reduces storage costs. Additionally, EDMS provides enhanced security with features like data encryption and access control. Electronic documents can be easily backed up and recovered in the event of a disaster, minimizing the risk of losing critical information. Notably, using EDMS also supports eco-friendly initiatives by reducing paper usage.

In contrast, conventional document management, which depends on paper, has numerous limitations. This method is bound by space and time, and documents are prone to damage, such as being soiled, torn, or folded (Jordan et al., 2022). The process of manually searching for and storing documents is time- and energy-consuming, which can lower employee productivity. From a security perspective, physical documents are more vulnerable to theft or loss, and access control is challenging to implement. Furthermore, for collaboration purposes, the conventional method is less efficient, as document distribution must be done manually, potentially hindering workflow and communication among employees. Therefore, although still used in some places, transitioning to electronic document management is clearly superior in terms of efficiency, security, and sustainability.

In conclusion, the Electronic Document Management System (EDMS) is defined as a centralized digital system designed to manage the entire document lifecycle, including creation, storage, management, and deletion of documents.

2.2 Theory 2

The Electronic Document Management System (EDMS) significantly enhances operational efficiency, accelerates information access, and facilitates collaboration. EDMS enables quick and accurate document searches, reducing time wasted on manual searches (Ayaz & Yanartaş, 2020). Additionally, this system assists in document management, prevents data loss, and ensures information security. By utilizing EDMS, organizations can optimize workflows, boost productivity, and comply with regulatory requirements.

EDMS is employed across various sectors. The system plays a crucial role in organizing administrative processes in companies, streamlining them into a single sequence, and optimizing employees' work by providing effective and seamless access to documents through automated operations that track and locate necessary information as well as generate reports on document workflows.

Each year, the volume of documents continues to increase. The quality and method of document management greatly determine a company's efficiency and effectiveness. Over time, the number of processed requests can reach thousands per day. At the same time, processes within organizational structures are typically repetitive, similar to documents themselves, making EDMS implementation more effective for accelerating document processing, preparing all required files, and preventing human error.

2.3 Theory 3

According to (Ngugi et al., 2021), system usage is one of the critical indicators in EDMS implementation. (Adam, 2007) identified several indicators determining EDMS implementation success, including:

1. System Usage

This indicator refers to various aspects that measure how frequently and effectively users utilize the system. It includes usage frequency, measuring how often users interact with the system in their daily practices; types of usage, encompassing specific activities like employee data entry, decision-making, and reporting; and usage duration, reflecting the time users spend operating the system. These aspects assess how well the system integrates into workflows and its effectiveness in supporting tasks.

2. Security

Security in Electronic Document Management Systems (EDMS) is crucial. The system must safeguard documents from unauthorized access and ensure data integrity. This involves data encryption, role-based access control, and user activity logging to monitor changes and document access. Security success can be measured by the frequency of security incidents before and after EDMS implementation and user satisfaction surveys regarding available security features.

3. Integration with Desktop Applications

EDMS integration with everyday desktop applications, such as Microsoft Office or email clients, is essential. Seamless integration allows users to access, edit, and save documents directly from familiar applications, enhancing productivity. Integration success can be evaluated by the frequency of feature usage and user feedback on its ease and benefits.

4. Classification and Indexing

An Electronic Document Management System (EDMS) must accurately classify and index documents to facilitate easy search and retrieval. A robust classification system enables users to locate the necessary documents quickly, reducing time spent on manual searches.

2.4 Theory 4

Research on Electronic Document Management Systems (EDMS) has demonstrated their effectiveness in improving efficiency, productivity, and accessibility across organizations. For example, (Abacı, 2022) found that employee perceptions of EDMS are influenced by work experience, with more experienced employees finding the system more beneficial in areas like managerial control, productivity, and security. Studies like (Ayaz & Yanartaş, 2020) highlighted the importance of user-friendly interfaces to enhance adoption and reduce workload, while (Jordan et al., 2022) emphasized the need to digitize document processes to maintain competitiveness in a digital era. However, the limited implementation of advanced features like Optical Character Recognition (OCR), as seen in (Ismail & Lawanda, 2020), shows room for improvement in search functionality and efficiency.

Challenges in EDMS adoption also revolve around scalability and usability. Research by (Sambetbayeva et al., 2022) suggested leveraging machine learning and multi-agent systems to address current system limitations. Similarly, (Nugraha et al., 2020) proposed stress testing and container technologies to ensure system reliability and scalability. Factors like performance expectations and social influence significantly impact system success. Meanwhile, cloud storage integration brings both opportunities and risks, as (Al-Maktabah et al., 2023) warned about potential data security vulnerabilities.

Specific implementations of EDMS, such as in public services and educational institutions, underscore their transformative potential. (Hasyim & Wijaya, 2019) showed that EDMS supports accreditation processes effectively, with high user satisfaction. Similarly, (Putra et al.,

2021) demonstrated how EDMS improves data management for internal quality assurance in education. Despite these successes, the need for further research on critical success factors (Jordan et al., 2022) and advanced technologies remains vital to overcome implementation challenges and secure the future of EDMS in digital transformation.

5. Material and Method

a. Design Study

This research employs a qualitative method with a descriptive study approach, enabling the author to gain a deeper understanding of the research object and the impact experienced by the research subjects. The purpose of qualitative research is to understand phenomena by providing detailed and in-depth descriptions of actual conditions in the field (Rijal Fadli, 2021). Qualitative methods emphasize the process and meaning of data obtained from the field.

The data collection methods used by the author include interviews with employees of PT Indo Liberty Textiles Karawang who are directly involved in the EDMS implementation process, participatory observation to directly observe the use of EDMS in daily work productivity, and documentation as evidence of the research's validity. The data obtained is then analyzed by the author to identify issues related to EDMS implementation.

In conducting a descriptive study approach, it is essential to understand the characteristics of qualitative research to uncover qualitative information in the descriptive analysis process. Qualitative research focuses more on the process than the outcome. Data analysis is conducted inductively, presenting facts as accurately as possible while considering aspects of scientific interpretation (Rijal Fadli, 2021).

b. Data Analysis

The population in this study consists of four employees directly involved in the implementation of the EDMS at Company X. The researcher gathered primary data through interviews, observations, and documentation. The author employed purposive sampling techniques for selecting the research sample. This sampling technique involves selecting individuals who are deemed most relevant and informative for the research. The selection criteria include expertise, position, and involvement in the context under study (Jordan et al., 2022).

The adoption of purposive sampling was based on the study's goals and objectives, focusing on identifying specific individuals who might have diverse perspectives on the issues and ideas being examined. Thus, individuals meeting the criteria and relevant to the research topic were included in the sample. For this study, interviews were conducted regarding the implementation of the Electronic Document Management System (EDMS) in document management. The researcher selected four informants based on the following categories:

1. Individuals directly involved in the implementation of the Electronic Document Management System (EDMS).
2. Individuals who frequently use the Electronic Document Management System (EDMS) in their daily work.

These informants were chosen because individuals who regularly use EDMS in their daily work can provide feedback on ease of use, the most beneficial features, and areas for improvement. They can explain processes, challenges, and solutions due to their involvement in the EDMS implementation process. By selecting these informants, the researcher can obtain relevant data to address the research questions.

6. Result

To gain a deeper understanding of the implementation of the Electronic Document Management System (EDMS) in Company X, the author collected data through various methods, including interviews, observations, and document reviews. The interview questions were designed based on indicators found in previous studies and tailored to the objectives of this research. The indicators considered in this study include security aspects, compatibility with desktop applications, and index grouping. The main goal of the interviews was to obtain firsthand information from relevant sources in the field about the EDMS implementation process. Below is a summary of the observations and key insights from the interview responses provided by participants:

1. Implementation of Electronic Document Management System (EDMS)

Interviews and observations were conducted with four participants directly involved in the use of EDMS. It was concluded that the EDMS implementation provides significant ease of use, despite some challenges during the transition and system utilization. The four participants, from different departments, agreed that the shift from conventional (physical) documents to EDMS resulted in better work practices, though physical documentation remains necessary in some aspects.

Participant A shared that while the ABY PAY application streamlined the performance appraisal process, physical documents were still required for report summaries. Despite this limitation, the system significantly reduced time compared to manual methods. Similarly, Participant B highlighted the ease of finding documents with EDMS, where typing a name retrieves results instantly, unlike physical copies, which are time-consuming to locate. However, they emphasized the importance of maintaining physical backups to ensure reliability. Participant C discussed the ENABLON system, implemented in 2015, which records sustainability and safety data. Although they initially found it challenging to use, they now appreciate its ability to generate comprehensive, easily accessible reports in various formats. Lastly, Participant D shared their experience transitioning through multiple systems, acknowledging the advantages each brought but stressing that physical documents remain essential for ensuring data authenticity.

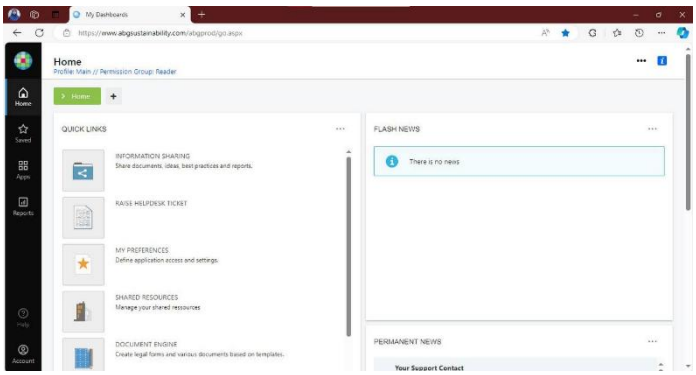

Figure 4. 1 System Interface of ENABLON

Source: EDMS used by Company X

Overall, while EDMS improves efficiency and accessibility, the reliance on physical documents persists for specific needs, particularly for validation and reporting purposes. From these observations, it is evident that participants generally perceive EDMS as a tool that enhances efficiency and accessibility in their workflows. However, physical documentation

remains necessary for tasks that require specific formats or legal validation. While some participants initially faced challenges adapting to the system, their familiarity with it improved over time, leading to a more seamless integration into their daily tasks.

2. Security Features in Electronic Document Management System (EDMS)

Security is a primary concern in EDMS implementation, consistent with theories like those of (Abacı, 2022), which emphasize user authentication as a foundational step. Authentication methods include unique user IDs and passwords, with some cases involving two-factor authentication (2FA) for added protection.

Participant A highlighted the implementation of strict authorization protocols that limit document access to specific personnel, even within the same division, reflecting a strong commitment to information security. Participant B emphasized IT-managed access controls, which ensure that only authorized individuals can view sensitive data, though occasional network issues can disrupt seamless access. Participant C discussed a user hierarchy system, where administrative roles have broader access compared to standard users. The company's IT department, certified under ISO 27001, provides robust security, with no incidents of data breaches reported. Meanwhile, Participant D described the classification of data into confidential and non-confidential categories, with master data integration enhancing accessibility while maintaining security.

From the discussions, it is evident that the security framework incorporates clear authorization levels, ID-password protections, and adherence to ISO 27001 standards. Overall, the system is considered secure, with occasional technical issues, such as network reliability, being the only reported concern.

3. System Compatibility with Desktop Applications

Interviews revealed that EDMS is generally compatible with applications like Excel, Word, and PDF. Participants acknowledged that the system simplifies document management, though some mentioned minor issues with exported file formatting.

- Participant A: "The system is compatible with other built-in applications but cannot be accessed offline. Exporting data to Excel sometimes results in misaligned formats, whereas PDF output is excellent."
- Participant B: "The system integrates seamlessly with Excel, Word, and PDF. However, I rarely use the export feature for Excel or Word."
- Participant C: "The system is highly compatible and works well on Windows 10 without requiring high specifications."
- Participant D: "The system integrates smoothly with other applications, and I've had no issues so far."

Participants highlighted the system's compatibility with various applications, noting its seamless integration with Excel, Word, and PDF. Participant A mentioned that while PDF exports are excellent, exporting data to Excel can sometimes result in misaligned formats, and offline access is not supported. Participant B rarely uses the Excel or Word export features but finds the integration effective. Participant C praised the system's high compatibility and smooth performance on Windows 10, even with standard specifications. Participant D echoed the sentiment, stating that the system integrates well with other applications without any issues.

From the findings, the system's compatibility with desktop applications emerged as a significant strength. However, issues with Excel formatting and the lack of offline accessibility were identified as areas needing improvement.

4. Features of EDMS That Enhance Employee Productivity

Participants highlighted key EDMS features that improve productivity, such as name search functionality, data filtering, data classification, and document scanning. Suggestions for feature enhancements were also provided.

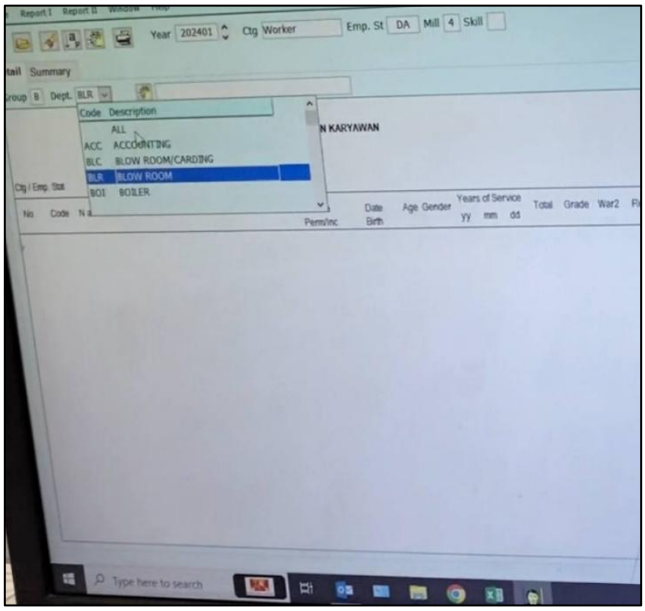

Figure 4. 2 ABY PAY Classification Feature Interface

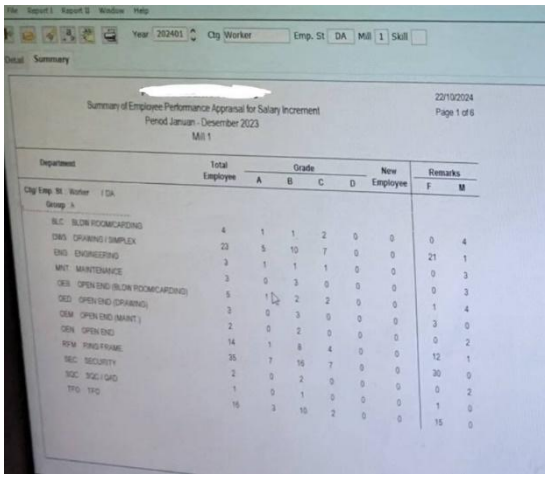

Figure 4. 3 ABY PAY Summary Interface

Source: EDMS used by Company X

Participants highlighted various features of the system and suggested improvements. Participant A praised the effective name search feature for checking employee records but suggested adding an auto-save function. Participant B commended the PDF filter for downloading specific data, such as employee or departmental information, and recommended a feature to retain former employee data. Participant C appreciated the classification feature for recording operational data like energy usage and production volumes but found manual validation of regulations in the Legal Compliance feature inefficient. Participant D emphasized

the scanner feature, which simplifies data input and enhances efficiency, particularly for tracking employee attendance.

In conclusion, EDMS provides substantial productivity benefits through its effective search, filter, classification, and scanning functionalities. However, participants suggested enhancements such as incorporating an auto-save feature, improving data management for former employees, and streamlining the process for regulation validation. These findings highlight EDMS as a valuable tool for improving operational efficiency, with opportunities for further enhancement to address user needs and maximize its potential benefits.

7. Discussion

1. Implementation of the Electronic Document Management System (EDMS)

Based on observations of four participants involved in using the Electronic Document Management System (EDMS), it can be concluded that the implementation of EDMS offers various benefits, despite challenges during the transition and its usage. The four participants come from different departments but agree that transitioning from conventional (physical) documents to the EDMS has brought positive changes in how they work.

One of the main findings from the observations is the time efficiency experienced by participants when using EDMS compared to physical documents. Participant B, who uses the ABY PAY system, revealed that EDMS makes document searches faster and more efficient. This reduces the time previously spent searching for physical documents, which required more effort. Research by (Anas & Salim, 2022) shows that EDMS plays an important role in enhancing knowledge management and operational efficiency in organizations, as it allows for more structured and faster document searches and management.

Further research by (Ismail & Lawanda, 2020) also revealed that the implementation of EDMS at PT. Kereta Api Indonesia improved efficiency in document organization, reduced errors in management, and facilitated easier information access for employees. This was also evident in the observation of Participant C, who felt greatly helped by the ENABLON system in managing sustainability and safety data, although initially struggling to adapt. The ability of EDMS to convert data into various formats simplifies information access, which is one of the main advantages of implementing EDMS.

Despite many benefits, the observations also indicate a continued reliance on physical documents in certain cases. Participant A still uses physical documents to compile final reports, although ABY PAY is used for performance appraisals. This shows that while EDMS provides convenience in data processing and access, physical documents are sometimes still needed to meet specific reporting needs or formats preferred by superiors. (Al-Maktabah et al., 2023), in their research on cloud storage challenges for digital documents, also revealed that one obstacle in using digital systems is the trust in the validity of digital documents. Although cloud storage offers convenience, there is a tendency to maintain physical documents as legitimate evidence in many organizations.

Participant D also emphasized the importance of physical documents to ensure data validity, even though more complex EDMS systems like Hunno make document access easier anytime and anywhere. This reflects a more conservative view regarding the importance of physical documents as authentic evidence. Most organizations still require physical documents as a form of authentication that cannot be fully replaced by electronic systems.

2. Identification of Security in the Electronic Document Management System (EDMS)

Security is a critical aspect of EDMS, as revealed in interviews with participants who indicated that the company has implemented various measures to secure data, such as user authentication, access controls, and the adoption of international security standards (ISO 27001). This implementation aligns with findings from (Ayaz & Yanartaş, 2020), who measured EDMS adoption and highlighted security as one of the primary determinants influencing the acceptance and use of technology.

Users are more likely to accept technology that offers high security, such as two-factor authentication (2FA), which can effectively increase trust in the system. Company X has implemented similar security measures, such as using ID and passwords managed by the IT department, as well as access levels based on user roles (admin, user), in line with principles of trust and security theories.

The electronic document management system (EDMS) plays a key role in an organization's digital transformation. One significant benefit of document digitization is its ability to manage and protect data more efficiently and securely. Company X has adopted a system that differentiates access between confidential data and data accessible to many employees, consistent with principles described by (Jordan et al., 2022). The use of strict authorization systems to control who can access certain documents is a very appropriate step to ensure sensitive data remains secure.

The implementation of ISO 27001 at the company, as conveyed by Participant C during interviews, also supports the security principles suggested in theories emphasizing the importance of international certification and standards in digital system management. ISO 27001 certification ensures that the implemented security system meets international information security standards, making it better equipped to address data breach threats.

Interviews revealed that although EDMS is well-integrated and secure, there are still technical challenges, such as network issues that can affect accessibility. This aligns with findings from (Ayaz & Yanartaş, 2020), who identified technical factors as potential barriers to the successful use of technology, even when the system has a high-security level. Network problems can reduce ease of use, which is related to user satisfaction. Therefore, to promote broader adoption and usage, companies must ensure that technical aspects such as network and IT infrastructure are also well maintained.

3. Identification of System Compatibility with Desktop Applications

Based on observations regarding the compatibility of the Electronic Document Management System (EDMS) with other desktop applications, it can be concluded that EDMS generally supports the use of various applications like Excel, Word, and PDF well, although there are minor notes, such as data formats not being perfectly neat when exported to Excel.

The majority of participants reported that EDMS is compatible with other applications such as Excel, Word, and PDF. Participant A, while noting issues with the data format when exporting to Excel, rated the PDF output as very good. This indicates that although EDMS offers flexibility in exporting data, the Excel format may still require further refinement. In a study by (Balogun et al., 2019) on EDMS adoption in Ilorin businesses, one of the main challenges faced was compatibility with existing applications. They found that while EDMS benefits document management, integration issues with other systems can hinder its adoption.

Participant C mentioned that the EDMS runs well on standard devices, such as those using Windows 10. This demonstrates that the system is relatively lightweight and user-friendly for devices that do not require high specifications. Consistent with research by (Putra et al., 2021), who designed an electronic documentation system using the Rapid Application Development (RAD) method, they emphasized the importance of responsive system design that can integrate with various existing devices.

Participant B revealed that although there were no compatibility issues with other systems, they rarely used output in Excel or Word formats. This suggests that certain features in the EDMS may be underutilized by some users depending on their needs.

4. EDMS Features that Help Increase Employee Productivity

Observations conducted on four participants indicate that the Electronic Document Management System (EDMS) has various features that greatly support employee productivity. These features not only aid in document management but also improve work efficiency through automation and accessibility of information. The following EDMS features help increase employee productivity:

- Employee Name or Track Record Search

  Participant A revealed that the name or track record search feature is very helpful in quickly checking employee performance scores.
- File Filter for PDF Management

  According to Participant B, the file filter feature in EDMS simplifies accessing relevant data, such as employee data based on departments.
- Data Classification and Legal Compliance

  Participant C highlighted the importance of data classification features in EDMS.
- Scanner Feature for Attendance Data Management

  The scanner feature used by Participant D in managing employee attendance data was also acknowledged to provide significant benefits.

  However, some limitations were also revealed, such as the absence of an auto-save feature to prevent data loss due to technical issues. Additionally, Participant B suggested adding features to store data for former employees, which is essential for historical record-keeping.

8. Conclusion, Implication, and Recommendation

- **Conclusion**

Based on the discussions conducted, it can be concluded that the implementation of the Electronic Document Management System (EDMS) has a significant positive impact on work efficiency and productivity. This system accelerates the process of document search and management, which previously required more time and effort in physical form. This improvement in efficiency is evident in participant observations, such as in the management of attendance data, reports, and other information. However, some challenges, such as dependency on physical documents and format compatibility issues, still require further attention.

The security of the EDMS system is a critical factor, with the company implementing measures such as user authentication and access control in accordance with international standards. Although security efforts are well in place, technical issues such as suboptimal

network conditions and IT infrastructure may reduce user comfort and accessibility to the system. The system's compatibility with desktop applications, while generally supporting applications like Excel, Word, and PDF, still requires improvement, particularly in terms of refining data formats when exported. Advanced technologies such as machine learning could provide a solution to enhance the efficiency and functionality of EDMS in the future.

Features within the EDMS, such as name search, filters for managing PDF files, and data classification, contribute significantly to increasing employee productivity. However, improvements are needed in some features, such as auto-save and tracking employees who have left, to ensure the reliability and continuity of the system. Overall, despite several challenges that need to be addressed, the implementation of EDMS has proven to provide substantial benefits in operational efficiency and document management within the company, and it is expected to continue evolving to meet user needs and overcome future technical challenges.

- **Implications**

1. Theoretical Implications

The implementation of the Electronic Document Management System (EDMS) makes a significant contribution to the development of theories in the fields of information and technology management. Based on the findings of this study, EDMS reinforces technology adoption theories, as explained by Ayaz & Yanartaş (2020). The findings show that efficiency, ease of use, and security are key factors influencing technology acceptance, aligning with the factors in the UTAUT model, which include performance expectancy and ease of use.

This study also supports theories on the importance of knowledge management in organizations, as described by Anas & Salim (2022), who revealed that EDMS can improve the efficiency of information and knowledge management within organizations, thereby supporting better strategic decision-making. Additionally, concepts in information management theory, particularly those related to document management systems, are proven relevant to this study's results. This is evident from EDMS's role, which not only manages documents but also enhances transparency and efficiency in operational processes.

Meanwhile, challenges associated with using EDMS, such as trust in digital documents, as explained by Al-Maktabah et al. (2023), emphasize the need for developing theories on the validity of digital documents in the era of cloud-based storage. This study also supports the development of information security theories, with findings showing that implementing international security standards like ISO 27001 is crucial for maintaining data integrity in digital systems, as described by Adam (2007). Therefore, further development of these theories must consider the technical aspects and challenges encountered in EDMS implementation.

2. Practical Implications

The implementation of an Electronic Document Management System (EDMS) has a significant impact on organizational operations. The use of this system enables increased efficiency in document management and improved data-driven decision-making. One practical implication is the enhancement of employee productivity. Various EDMS features, such as name search, employee tracking, PDF file management with filters, data classification, and legal compliance tools, greatly facilitate administrative processes and reduce the potential for errors.

For organizations implementing EDMS, it is crucial to ensure that the system is compatible with other applications, such as Excel and Word, to simplify data management. Additionally, supplementary features such as auto-save, which prevents data loss, and historical data management for former employees, as suggested by participants in this study, can further enhance the system's reliability and functionality.

Security is also a primary concern, and companies must ensure the implementation of appropriate security protocols, such as user authentication and ISO 27001 certification, to protect sensitive data. These findings also highlight the importance of addressing technical challenges, such as network issues and application compatibility, which can hinder optimal adoption and use of the system. Therefore, organizations must continuously develop and update their EDMS to overcome these challenges and ensure the system continues to support operational efficiency and employee productivity effectively.

- **Recommendations**

Future research should consider incorporating additional variables, such as organizational culture, employee training levels, and external factors like government policies or technological advancements. Conducting studies over a longer period is also recommended to observe changes over time. Moreover, involving larger samples from diverse organizational backgrounds and industry sectors would provide broader insights.

For companies, addressing technical challenges, such as network issues or inadequate IT infrastructure, requires regular maintenance and infrastructure upgrades to ensure optimal system accessibility. Companies should also evaluate and enhance EDMS features to improve functionality and compatibility with applications like Excel and Word. Refining data export processes and creating cleaner document formatting can significantly improve user experience. Additionally, introducing features to store and manage historical data for former employees would help companies access essential information for reports and other future needs, further enhancing the system's reliability and utility.

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