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The Role of Paperless Office Systems In Supporting Office Automation Efforts (Study at One of Government Institutions in Subang District)

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ABSTRACT

This research evaluates how local government agencies in Subang Regency implement paperless offices. The study examines the implementation, obstacles, and solutions for implementing the concept of paperless offices in government organizations. Researchers utilized a qualitative descriptive method with a case study approach. Data sources included informants, events, and documents. Data analysis involved interactive techniques, including interviews as a tool for data collection. The analysis consisted of data collection, reduction, presentation, and conclusion. The research findings indicate that implementing the paperless office system in one of the government agencies in Subang Regency aims to address issues related to paper accumulation and enhance document security through application integration. Implementing the paperless office concept can improve the efficiency of public services, enabling faster and easier processes such as application submission, reporting, and data processing.

Keywords: Government Agencies, Automation, Paperless Office.

INTRODUCTION

In today's era, the progress of science and technology undergoes constant changes daily. Technological advancements encompass almost every aspect of life, not limited to a single aspect. This development also drives advancements in other areas of life. As a result, globalization emerges as an international integration process fueled by increased cultural exchanges. The development of technology (telecommunications, internet) and transportation is a supporting factor for globalization. Globalization has made human activities more agile, as agility is necessary for daily activities. For instance, the communication process could have been more lengthy and efficient before globalization. When someone wanted to send a message to someone else over

long distances, they relied on letters, and the delivery process depended on the distance. The farther the person they wanted to communicate with, the longer the process would take.

E-government is a fully integrated modern e-government system that responds to strategic environmental changes, demanding efficient, effective, public-oriented, and transparent governance (Hooda et al., 2022). This system will act as a bridge to achieving good governance in the future. Government agencies often employ e-government or e-office systems, commonly known as e-offices (Arayankalam et al., 2021). One of the objectives of implementing e-government is to provide better public services for government agencies (Kassen, 2022). Strong loyalty from the government is necessary to pioneer and initiate something new in bureaucracy. The utilization of e-government in bureaucracy is expected to be an alternative bureaucratic reform to provide better facilities (Twizeyimana & Andersson, 2019).

Paperless means reducing paper consumption, not eliminating it. Therefore, paperless should not be understood as "paper-free" because it is almost impossible for an office to be completely free of paper when carrying out administrative tasks. A paperless office is a system designed to manage administrative processes (Suban & Reja, 2022). The benefits of a paperless office include increased productivity, cost-effectiveness, efficient space utilization, and reduced environmental impact. A paperless office system also supports office automation programs, which combine high technology with process improvement to enhance work productivity. The paperless office system employs the latest technology to reduce paper usage in a company or institution, resulting in a mutually beneficial relationship.

Paperless office

Briscoe (2022) states that the "paperless office" emerged in the late 1990s, specifically in 1975. A paperless office is a system created to manage administrative processes. The idea is to minimize paper use and digitize documents to reduce environmental impact, save costs, increase productivity, and improve space efficiency. The concept of paperless focuses on reducing paper usage rather than eliminating it, as it is nearly impossible to eliminate paper usage in an office. Implementing a paperless office is widely understood as replacing paper documents in traditional offices with electronic formats such as Docs and PDFs.

According to Wantania et al. (2021), a paperless office offers several benefits.Cost savings achieved by reducing paper usage and providing alternative storage options such as file cabinets for documents; Time and energy savings in distributing and retrieving required documents; Decreased paper accumulation, which can disrupt office organization and hinder work comfort; Enhanced document security, as

authorized personnel are the only ones allowed access based on data provider settings; Promotion of creativity and increased employee motivation by making paperless office activities as engaging as popular social networks like "Facebook" or "Twitter."

E-Office

E-office is an office application that replaces manual administrative processes with electronic processes using a Local Area Network (LAN) and the Internet (online) (Noor et al., 2020). The advancement of technology, particularly high-speed broadband networks, enables the transition from conventional offices to electronic offices (Subari et al., 2020). With the current development of information technology, computers serve as tools to process data into electronic information. E-office aims to enhance efficiency, accessibility, and transparency in office workflow by reducing paper-based work and manual processes. E-office typically includes Electronic Document Management Systems (EDMS), workflow automation tools, digital signature software, and other technologies that enable employees to create, process, and store documents electronically. This streamlines workflow processes and reduces errors.

E-government

According to World Twizeyimana & Andersson (2019) and (Malodia et al., 2021), government institutions use information technology that can transform how governments interact with constituents, businesses, and other government branches. This technology can use for various purposes, including delivering better public services, fostering better relationships with businesses and industries, empowering citizens through access to information, or achieving more effective government administration. It can also enhance convenience, reduce corruption, improve transparency, increase revenue, and save costs.

Governments utilize new technology to provide the general public with easy access to government information and services, improve service quality, and offer more opportunities for public participation in institutions and democratic processes (Sabani, 2021). Furthermore, (Carter et al., 2022; Mensah, 2020; Pérez-Morote et al., 2020) mention that e-government involves using information technology, particularly the Internet, to offer government services in a more practical, customer-focused, efficient, and overall better manner. This condition impacts the organization's interactions with customers, partners, and other government organizations, as well as its internal operations and workforce.

From the above definitions, government institutions utilize current information technology to provide the general public with easy access to government information and services through web-based applications. This condition involves bringing about internal and external process changes to improve service quality, reduce

corruption, enhance transparency, increase convenience, boost revenue, and save costs in government administration.

Office Automation

According to Abella et al. (2019), office automation utilizes technology to enhance productivity in office management procedures by leveraging existing resources. This condition involves using software and hardware to automate data processing, archiving, and communication tasks. According to Huang et al. (2019), office technology efficiently utilizes machines for recording, collecting, processing, copying, transmitting, and storing information. By implementing office automation, companies can save time and resources, improve efficiency, and reduce human errors. It also optimizes workforce utilization and allows staff to focus on more critical and complex tasks (Lee, 2019).

Based on the problem background above, the research problem formulation is how the paperless office system supports office automation efforts in one of the government institutions in the Subang regency.

METHOD

This research is conducted at one of the government institutions in Subang Regency. The research method employed in this study is qualitative descriptive. According to Moleong (2007:6), qualitative research aims to understand phenomena experienced by research subjects, such as behavior, perceptions, motivations, and actions, and describe them in written and oral forms within a specific context. It seeks to comprehend and utilize various natural methods. In this research, the utilized research method is the case study method, which aims to gather data, obtain meaning, and gain understanding from a specific case.

The data sources in this research include informants, campaigns, research locations, and documents. The examined events are office activities related to the paperless office system. The data analysis technique used in this study combines interactive analysis technique with interviews. This approach intends to address existing issues and develop underlying hypotheses. The steps of interactive analysis include data collection, data reduction, data presentation, and conclusion.

RESULT AND DISCUSSION

Purpose of Implementing a Paperless Office System

Implementing the paperless office system aims to transform administrative management from paper-based to application-based processes. This result aims to reduce or eliminate the use of paper, which can cause office clutter, and instead securely store documents within an integrated application, granting access only to authorized individuals as determined by the data

provider. This result aligns with the primary tasks of government institutions in Subang Regency, where the Manpower and Energy Subang Regency Office provides AK1 services, commonly known as the yellow card. The yellow card used to be printed on paper with a validity period of 2 years but has now transitioned to an application-based format.

Organizations can reduce costs associated with paper purchases, printer ink, and printing machine maintenance by implementing the paperless office system. Additionally, the use of a digital application-based system allows for the reduction of document delivery and archiving expenses. It enables easy and quick access to documents, faster processing and storage, and provides enhanced security, protecting data from damage or loss. The paperless system enables document accessibility anytime and anywhere through an internet network, facilitating users, particularly job seekers, to search for and process documents without the need to physically visit an archive.

Implementation of the Paperless Office System

To implement the paperless office system, one government institution in Subang Regency has adopted an application to improve and streamline paperless operations. Job seekers now obtain an online-based AK1 identity, eliminating the need for face-to-face meetings. The government institution verifies information online via the application to prevent fraud and similar issues. Job seeker data is centralized in the "Siap Kerja" application developed by the Ministry of Manpower, integrating Single Sign-On (SSO) through the ministry's central statistical data.

The steps involved in implementing the paperless office system at the government institution in Subang Regency are as follows:

Preparation: The institution prepares the necessary technological infrastructure, including servers, software, and equipment required to support the application.

Document digitization: Documents, such as job seeker cards, previously printed on paper, are now accessed using the application.

Storage system: The institution ensures that authorized users can access job seekers' documents or cards within the digital storage system.

Employee training: The institution trains its employees to utilize the paperless office system, including uploading documents, accessing them, and utilizing the application-based digital storage system.

System implementation: After completing all preparations, the institution fully implements the paperless office system. Documents previously printed are uploaded to the application, allowing access to authorized users.

Evaluation: Following implementing the paperless office system, the institution evaluates

to identify any weaknesses or deficiencies in the application system and makes necessary improvements.

Data Security and Privacy in Paperless Office Systems

The implementation of the paperless office system aims to manage administration by reducing or eliminating paper and transitioning to application-based processes. This condition is done to decrease the clutter caused by stacks of paper in the office while securely storing files integrated within an application, ensuring that only authorized individuals can access the documents based on data provider settings. This condition aligns with the main tasks of government institutions in Subang Regency, particularly the Department of Manpower and Transmigration and the Department of Energy and Mineral Resources, which provide services related to the AK1 (job seeker identification) card, commonly known as the "yellow card." The yellow card used to be printed on paper blanks with a validity period of two years, but now it has been transformed into an application-based format.

Companies can reduce expenses related to paper purchases, printer ink, and printing machine maintenance by implementing the paperless office system. Using a digital application-based system can minimize document delivery and archiving costs. Documents can be easily and quickly accessed, processed, and stored. Moreover, the paperless system allows for safer data storage, protecting against damage and loss. With the paperless system, documents can be accessed anytime and anywhere through the internet, facilitating users, especially job seekers, in searching for and processing documents without the need to be physically present at the archive location.

Implementing the paperless office system at one government institution in Subang Regency involved developing an application to improve and streamline paperless processes. Job seekers are now connected to the central civil registration office, ensuring their identity matches their identification card or KTP. In the process, each job seeker is assigned an account different from other job seekers by entering their NIK (ID number) and mother's name as stated in the Family Card. This information is verified through an automatically sent OTP (One-Time Password) to the job seeker's mobile number via SMS. Thus, personal data remains confidential as the job seeker controls the OTP and password. If a job seeker forgets the password to access the application, the DISNAKER operator assists in issuing a new password from the Ministry of Manpower.

The challenges faced while implementing the paperless office system at the government institution in Subang Regency are as follows: First, the necessity to allocate local budget funds for application development through the approval of the regent and the DPRD of Subang

Regency—second, intermittent internet connectivity in the office. She was third, designing application features easily understood by the residents of Subang Regency. Fourth, difficulties in promoting the use and benefits of the application.

The following solutions were implemented to address these challenges: First, company collaborated with the local information and communication department to design the application. Second, coordination was established with the program department to allocate funds for the application development and propose it to the regent and DPRD of Subang Regency. Third, the application's use was promoted through all Special Vocational Job Centers in Subang Regency to facilitate dissemination to the public.

The government institution in Subang Regency still needs to evaluate the paperless office system. This condition is because the institution is still in the process of implementing the program to the public. Therefore, the evaluation phase has yet to be carried out as the institution still needs to implement the paperless office system fully.

CONCLUSION

Based on the research and discussion, we can draw the following conclusions: The government institution in Subang Regency aims to reduce paper clutter and enhance document security by integrating the paperless office system into an application. This implementation streamlines the primary tasks of the government institution, particularly in providing services such as the AK1 or job seeker identification card. To implement the paperless office system, the government institution in Subang Regency has developed an application to improve the use of paperless processes. This application facilitates the workflow of the AK1 system, minimizing the risk of fraud and similar issues.

To ensure data security and privacy, the government institution in Subang Regency has connected each job seeker to the central civil registration office to verify their identity with their identification card or KTP. Therefore, job seekers maintain control over their OTP code and password to prevent any leakage of personal data. If a job seeker forgets their password to access the application, the DISNAKER operator will assist in issuing a new password from the Ministry of Manpower.

The challenges faced while implementing the paperless office system in the government institution in Subang Regency are: First, obtaining budget approval to develop the app; second, ensuring stable internet connectivity third, designing the initial features and fourth, distributing the application.

The government institution in Subang Regency has not fully implemented the paperless

office system among the public. Therefore, they have yet to reach the evaluation phase.

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