

A Comparative Analysis Of File Retrieval In Time Efficiency: Manual And Digital Filing Systems In Office Environments In Parañaque City

Charm D. Tumandao, Jan Lorraine S. Centeno, Love Joy P. Placiente, Mildred G. Fundal, and Stephanie A. Medina
Bachelor of Science in Office Administration,

Polytechnic University of the Philippines Parañaque City Campus
charmdaiztumandao@gmail.com, janlorrinec@gmail.com, Placientelovejoy802@gmail.com,
mildredfundal@gmail.com, itsmestephmdn@gmail.com

Abstract- This study entitled “A Comparative Analysis of File Retrieval In Time Efficiency: Manual and Digital Filing Systems in Office Environments in Parañaque City”, focused on comparing the file retrieval efficiency of manual and digital filing systems in selected government offices in Parañaque City. The study used a quantitative descriptive-comparative research design and involved 100 office staff, administrative personnel, and records custodians who regularly manage and retrieve office documents. A survey questionnaire through Google Forms was used to gather the needed data from the respondents. Statistical methods like frequency, percentages, weighted average, standard deviation, and paired sample t-test have been used to analyze the findings. It was found that the traditional system of filing took more time in the process of searching for files, but the digital system saved more time for accessing documents.. Most respondents reported that manual retrieval takes around 4–6 minutes, while digital retrieval usually takes about 1–3 minutes. The results also indicated a significant difference between the two systems in terms of retrieval efficiency. However, both methods are prone to various problems like delay, technical difficulties, and disorganized record files. From the research, it was found out that both the manual and computerized filing systems have strengths and weaknesses that depend on the needs and circumstances of the particular office. It can be recommended that, with better record-keeping skills, proper organization, training, and technology, effective file retrieval procedures can be achieved.

Keywords: Time Efficiency, Filing System Performance, File Retrieval, Manual Filing, Digital Filing, Office Environments, Technology, Operations

Date of Submission: 28/05/2026

Date of Review: 26/06/2026

Date of Acceptance: 04/07/2026

IJMSS / Volume 1, Issue 1, (Jan-Jun)2026

INTRODUCTION

Effective records management is essential to running a successful office. To support decision-making, maintain accurate records, and guarantee the seamless operation of daily tasks, organizations rely on appropriate documentation. Documents were kept in actual folders, cabinets, and record books at offices that used manual filing systems in the past. However, a lot of businesses have begun utilizing digital filing systems as a result of the ongoing advancement of technology. These systems enable computers and specialized software to store, arrange, and retrieve documents. As a result, the efficiency, accuracy, and accessibility of manual and digital filing systems vary, particularly in terms of the speed at which files may be located when needed.

Ease of use and familiarity are often associated with paper filing systems, especially where there is limited availability of technology. However, as the number of documents increases, they tend to become slow and cumbersome. Employees may find themselves spending a lot of time searching for files within cabinet drawers, and sometimes important documents may be misplaced. Furthermore, problems like lost files, sluggish retrieval, and security threats are more common with manual systems, which can have an impact on productivity (MES Ltd., 2021). However, employing databases, electronic storage platforms, and keywords, users of digital file systems can quickly locate papers (Shehzadi, 2025).

Digital approaches can increase productivity by automating operations, lowering errors, and enabling quicker access to information, according to studies comparing manual and digital systems (Shehzadi, 2025). It is quite evident that speed in retrieving files plays an important role in office environments, where speedy access to the necessary documents impacts productivity and service quality. The ability of employees to easily locate the required documents would enhance efficiency and maintain a proper order at work. According to (TATmyeoffice, 2025), digital document management systems improve efficiency by making it easier and faster to search for files, while also providing better security and access compared to traditional filing methods. As organizations continue to improve their processes, it becomes more important to evaluate which filing system works best (Wagan et al., 2025). Even though many organizations are now using digital filing systems, there is still limited local research that directly compares manual and digital systems in terms of how fast files can be retrieved, especially in government offices like Parañaque City Hall. Most existing studies focus on private organizations or general office environments, which may not fully represent the situation in public offices that handle a large number of documents every day. There is also limited data showing exactly how much faster digital systems are compared to manual systems in real work settings. This creates a gap in understanding whether digital systems are always the best option, especially for offices with limited resources or technology.

The objective of this study is to analyze the filing system employed by government offices in Parañaque City, which serves as the principal administrative center of the city government. The City Hall handles a substantial volume of official papers, files, and processes. As such, an effective file management system will be crucial for streamlining processes and ensuring efficient public service.

Therefore, this research aims to compare the time it takes to retrieve files using manual and digital filing systems in selected government offices in Parañaque City. By identifying the advantages and limitations of both systems, the study aims to determine which method allows faster and more efficient access to documents. The results of this study may help improve records management practices and provide suggestions for making office work more efficient through better filing systems.

BACKGROUND OF THE STUDY

It is common in every office in the fields of education, health, and government to find that records and papers are the key components of operations within these offices. Examples of records include forms, letters, agreements, and reports, among others, which require documentation, storage, protection, and retrieval whenever required. Traditionally, manual filing was practiced exclusively in these offices, and this method was the earliest way of keeping office records. Manual filing involved sorting paper records according to various indexes, such as the alphabet, in file cabinets and drawers. With the passage of time, the emergence of ICT has made organizations shift their attention to electronic filing of documents.

Efficiency, speed, and enhanced security are among the benefits of shifting from manual to electronic record-keeping. Nonetheless, manual record-keeping continues to remain very significant in many institutions, especially in situations where it is mandatory to keep certain records physically according to some laws or regulations, such as notarized contracts, land ownership, or original copies that cannot currently be replaced by electronic versions (Udo and Essien, 2020).

In this modern time of high-tech digital technology, many organizations have shifted from a manual paper-based document system to an electronic document management system. This digital system allows for efficient management, storage, and access of electronic documents, helping save time and increase productivity. Additionally, the digital document management system enables collaborative work processes and supports remote work.

Seller and Harper (2002), describe that paper documents provide certain advantages that digital formats cannot fully replicate. These advantages include flexible navigation, the ability to read multiple documents at once, the ability to annotate while reading, and the ability to combine reading with writing tasks. On the other hand, digital documents provide unique benefits, such as quick storage and retrieval of large volumes of information, rapid full-text searching, and a direct link to related materials, and capacity for dynamic updates. The authors also categorize documents based on their usage: “hot” documents are actively in use, “warm” documents have been recently used or are likely to be needed soon, and “cold” documents are archived for occasional reference. Different categories require different types of support, with some examples including capability editing and annotation for hot documents, and efficient searching for cold documents. This point illustrates the fact that the nature of the use of the document will determine the type of file system that is used, either manually or electronically.

For any proper management of critical records, an appropriate mechanism must be put in place to ensure that the entire process is done properly and efficiently. This includes proper filing, data integrity, and proper access to confidential records. The Electronic Records Management System (ERMS) helps in efficient filing of records because it allows one to keep track of their documents and maintain them efficiently. Compared to manual filing systems, digital filing systems offer multiple advantages, including faster access, cost reduction, and enhanced data security (Smallwood 2020). Despite these benefits, many offices still operate in a hybrid environment that combines both manual and digital practices, creating a mixed landscape of document handling procedures.

This study is based mainly on the Task-Technology Fit (TTF) Theory formulated by Goodhue and Thompson (1995). According to the Task-Technology Fit Theory, the performance of the technology depends on how appropriate the technology is with respect to the task it is supposed to perform. In other words, technology improves performance only when its features and capabilities correspond to the specific requirements of users’ tasks. According to Goodhue and Thompson (2002), the better the fit between task demands and technology functions, the higher the probability that there will be improved performance outcomes. In the context of document management, it means that digital filing systems are efficient in terms of enhancing performance only if their functions, such as searching, indexing, version control, and remote access, directly support office tasks like retrieval, record organization, and data processing (Goodhue and Thompson, 1995). The Task-Technology Fit Theory helps explain why digital systems often outperform manual systems in terms of efficiency: technologies that are well-matched to specific office tasks lead to faster, more accurate, and less error-prone performance.

Katuu (2016), notes that the current practices of digital records management ensure instant access to data, its accessibility, and reliability, as well as efficiency of administration within the firm. The practice of effective document management will have a positive effect on decision-making and administrative efficiency. A well-organized and easily accessible record can be used to ensure fast access to data by staff and management, contributing to proper planning and decision-making.

According to Nguyen and Mohamed (2021), an institution using structured information management systems is capable of enhancing the efficiency of work processes and improving data accessibility for reference, which in turn enhances organizational productivity. A document management system may help ensure that there is security of the information, compliance with the law, and even the availability of documents in the future. One of the key factors to keep in mind is the confidentiality of documents as well as making sure they are available to authorized people only. The practices of document management include electronic achievement, data redundancy, and authorization. Alshibly (2016) notes that

the introduction of an electronic document management system has enhanced the level of data security in the organization and has also improved the management of the information resources.

It is important to show the difference between manual filing systems and digital filing systems is crucial because it delivers evidence-based insights into their real-world performance, replacing assumptions about digital superiority with measurable outcomes (Kenneth C. Laudon & Jane P. Laudon, 2020). The organization can make comparisons based on factors such as retrieval time, accuracy, and effectiveness to see how much better the technology is compared to using traditional methods. This makes it easier for them to invest in technology because they have clear reasons behind their decision and know what to choose. Based on the work of Kenneth C. Laudon & Jane P. Laudon (2020), it is evident that the evaluation of information systems using measurable metrics, including speed and accuracy, is critical in enhancing the productivity of organizations. As such, inclusion of such an analysis process aids in the comprehension of efficient document management processes, as well as in the establishment of suitable filing practices.

According to Mendoza & Catugda (2024), a work-life balance results in improved efficiency, productivity, and job satisfaction, which are linked to the idea of utilizing an effective filing system that enables employees to access records easily and perform their job effectively. It is essential to mention the journal's analysis of performance management, which stresses the importance of the coordination of tasks assigned to employees and organizational objectives, much like a manual and automated filing system, which aims at improving retrieval speed, reducing waste of time, and ensuring efficient office performance, while discussing shift work and leisure activities, this articles make an indirect contribution to our study by proving that time limitations, work overload, and other factors related to the schedule influence worker efficiency, in a way similar to the impact of the file retrieval time on worker productivity and general performance. Lastly, the article indicated that efficient systems contribute to increased efficiency in the output of workers, linking filing systems even more strongly.

The primary objective of the study is to know the comparison of efficiency in time retrieval of the manual and digital filing systems. The study carried out in this regard involves performing the process of file retrieval using both methods and measuring the time difference involved. Other areas that have been evaluated include accuracy level, frequency of errors, and the overall experience of the retrieval process. This will provide a holistic perspective on the pros and cons of each system, helping improve office productivity.

STATEMENT OF THE PROBLEM

This study seeks to analyze the efficiency of file retrieval between manual and digital filing systems used in offices in the government offices in Parañaque City. Specifically, the study aims to determine which of the filing systems allows faster retrieval of documents. Thus, the researchers aim to answer the following questions:

1. What is the demographic profile of the respondents in terms of:

- 1.1 Age
- 1.2 Gender
- 1.3 Job Position
- 1.4 Years of experience in the job

2. What is the average time of file retrieval when using the following system:

- 2.1 Manual Filing System
- 2.2 Digital Filing System

3. Is there a significant difference between manual and digital filing systems in the process of file retrieval?

4. What are the problems/issues encountered by the respondents during the process of file retrieval when using the following system:

- 4.1 Manual Filing System
- 4.2 Digital Filing System

5. Which between the manual and digital filing system demonstrates a greater time efficiency in the retrieval of files in an office environment?

OBJECTIVES OF THE STUDY

This study aims to evaluate the efficiency of manual and digital filing systems in terms of file retrieval times in the government offices in Parañaque City. The study will also determine the respondents' demographic characteristics. Specifically, this study aims to:

- To compare the efficiency of manual and digital filing systems in terms of file retrieval time in offices at the government offices in Parañaque City.
- To identify the demographic profile of the respondents in terms of age, gender, job position, and years of experience.
- To identify which filing system provides greater time efficiency in retrieving files in the office environment.

SIGNIFICANCE OF THE STUDY

The outcomes of this study will contribute to:

Office Administrators and Office Staff: This study can provide a platform for increased efficiency in retrieving the existing files and for designing efficient future filing systems.

Government Offices and Public Institutions: It improves the records management process and helps to increase office productivity and improve the delivery of services through the utilization of the electronic filing system to ease document processing.

Students of Office Administration and Related Programs: The study gives insight regarding the design of a filing system and how to retrieve documents.

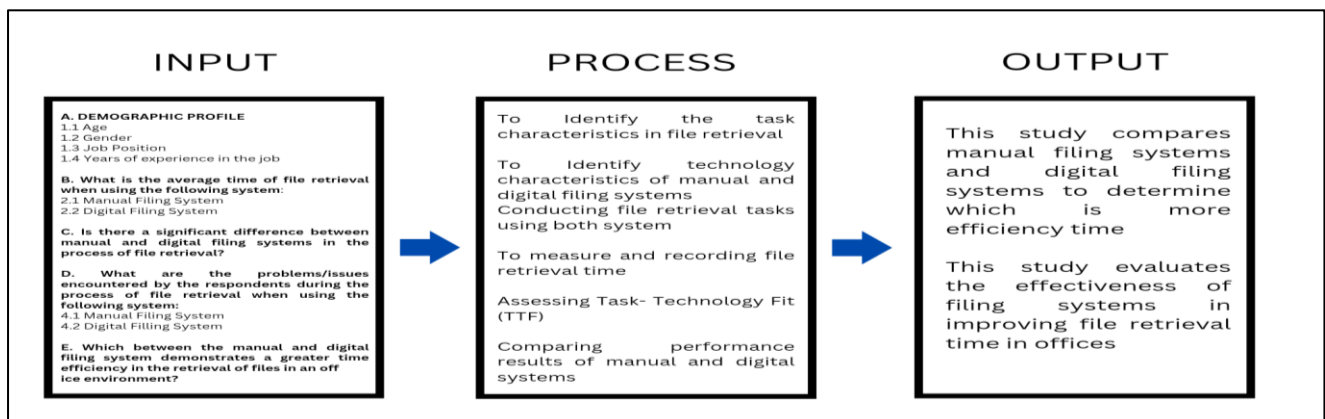
Future Researchers: This research can help future researchers in finding ways to optimize record management systems.

SCOPE AND LIMITATIONS

In this study, emphasis is placed on the analysis of the file retrieval process efficiency between manual and digital filing systems in selected public offices. The objective is to determine and compare the amount of time necessary to find and retrieve the files from the manual and the digital filing system. The participants for this study would be administrative staff members, along with other record keepers who have the duty to search and organize office records. Time would be logged upon searching and recovering files. The test will be performed at the government offices in Parañaque City, where both manual and computer-based filing systems are employed.

However, it must be pointed out that the current research is limited to evaluating search effectiveness alone. The factors of cost efficiency, data security, user-friendliness, or storage volume cannot be considered in this case. Besides, the results obtained from this experiment can be biased due to the familiarity of participants with the filing systems used, their experience, and the personal efficiency of each participant involved. Moreover, the process of conducting the experiment can be interrupted or affected by other factors that are beyond researchers' control, such as distractions at the workplace, volume of work assigned, or technological problems if digital systems are used.

CONCEPTUAL FRAMEWORK



This study determines the file retrieval times in offices using manual and digital filing systems through the Input–Process–Output (IPO) method. It aims to identify which system is more efficient in managing and filing documents. A comparison of the retrieval time between manual and digital filing systems to identify which system provides faster and more effective filing of documents. These steps are aligned with the Task-Technology Fit Theory, as they examine how well the characteristics of each filing system support the task of file retrieval, and how this alignment affects performance in terms of time efficiency. The results of the study provide a comparison of the effectiveness of manual and digital filing systems in terms of file retrieval time in the workplace.

HYPOTHESES

H₁: There is a significant difference between the manual and digital filing system in terms of file retrieval efficiency.

DEFINITION OF TERMS

Electronic Records Management System - a digital system that keeps electronic records safe, well-organized, and easy to find when needed.

File Retrieval - It is the process of locating, accessing, and retrieving a file from a filing system when it is needed.

Information Communication Technology - Refers to digital technologies for handling information.

Record Management System - a software solution or organized framework used to track, store, manage, and control both digital and physical records throughout their entire lifecycle - from creation to disposal.

Task Characteristic - Refers to the nature and requirements of the work and can be applied to file searching within an office. Also considers the type of activities office staff undertake when working with documents.

Task-Technology Fit - The extent of how well a filing system supports and enhances the performance of file retrieval tasks.

Technology Characteristics - The characteristics of the filing system technology, manual or digital, that dictate the tasks to be performed in file retrieval.

Time Efficiency - Refers to the time required to perform a file search and effectively locate and retrieve the file.

REVIEW OF RELATED LITERATURE

The rapid advancement in technology has drastically changed the office functions; most of the jobs are now done in a way that adapts to modern technologies. However, amid the rapid technology transition, some are still stuck in the traditional process and refuse to adapt. The process of managing documents plays a vital role in ensuring efficiency in any office. As office work generates a large volume of paper-based documents and filled-in folders, they are stored in cabinets. While this approach is sufficient, recent studies have shown that manual filing systems have proven to be slow and prone to errors.

In Goodhue and Thompson's theory, the importance of task-technology fit (TTF) is highlighted in explaining how the technology can lead to performance impact. It explains the relationship of its factors to each other, the task characteristics and technology characteristics to the task fit technology, and performance impacts.

In this study, it provides a valuable insight into understanding the filing system performance in offices by analyzing whether a technology fits certain tasks. It emphasizes that when the features of the type of filing system match the task characteristics, it determines the performance outcome of the work in terms of the document search time and accuracy. A better fit is likely to result in a shorter search of the document and high accuracy, whereas a less likely fit results in a longer search that affects the efficiency of the work. The task characteristics specify the tasks being done in the offices, such as searching, filing, locating, and organizing documents, while the type of filing system is the one used in the technology characteristics. The performance outcomes are defined by how efficient the work is in relation to task-fit technology. By applying this theory in the framework of the study, it would develop a clear understanding of how these different systems support tasks required for effective file retrieval. Through this analysis, the researchers can better determine which system may be more time-efficient.

Information Processing Theory explains how people take in, understand, store, and recall information in a way that is similar to how a computer works. According to Saul McLeod (2024), our brain does not simply absorb information all at once. Instead, it goes through a process where we first notice or pay attention to something, then try to understand it, and finally store it in our memory so we can use it again later. This shows that remembering things is not automatic; it requires attention and meaning. The theory also explains that memory has different stages: sensory memory, short-term memory, and long-term memory. Sensory memory holds information for a very short time, just enough for us to notice it. If we pay attention to it, the information moves to short-term memory, where we can think about it briefly. With enough focus and understanding, it can then be stored in long-term memory, where it stays for a much longer time. However, not everything we see or hear is remembered, because our brain naturally filters out information that seems unimportant or is not properly processed. When information is clear, meaningful, or well-organized, it becomes easier to remember and retrieve later (McLeod, 2024).

In relation to this study, this theory can be connected to how filing systems work in real life. Just like the brain organizes information to make it easier to recall, filing systems are designed to store documents in an organized way so they can be found quickly when needed. When files are messy or poorly arranged, it takes more time and effort to locate them, similar to how it is harder to remember disorganized information in our minds. But when documents are properly labeled and arranged, retrieval becomes faster and more efficient. This is why digital filing systems are often seen as more effective than manual ones. They allow information to be stored neatly, searched easily, and accessed within seconds. They also help reduce the risk of losing important documents and make work more convenient, especially in busy environments. Overall, the theory shows that whether in the human mind or in filing systems, good organization leads to better understanding, faster retrieval, and improved efficiency.

The Technology Acceptance Model (TAM) explains that if you use new digital technology that can be used to improve work performance, and it is said that there are two factors: perceived ease of use and usefulness, which says that it will speed up and make a task easier when used to operate the system. If users believe that this will help, they will use it more to create a document. These two factors are the key that drives the technology adoption. In theory, it is stated that when employees get access to new technologies and find them beneficial to their work, they will easily embrace them. According to Schorr (2023), the latest review of Technology Acceptance Model Theory (Davis, 1989), TAM can be used by most because digital learning can help with the widespread use of digital learning because it helps to explain why people accept or reject technological systems in different places, including the workplace. The adoption of digital tools can be explained by this theory in the context of contemporary workplaces. It offers a comprehension of how workers assess and use technology, especially with regard to increasing performance output and productivity. As a result, this is frequently used in studies that look at how digital technology affects worker productivity and organizational efficacy. For this study, TAM provides a connection and relevance because it explains how employees use or prefer the use of a digital filing system over a manual filing system. If a digital filing system provides faster, organized, easy-to-use, and less time-consuming work, employees will choose to use it compared to a manual filing system that requires more time to create, produce, or complete a document.

The Diffusion of Innovation Theory explains how new ideas, technologies, or systems slowly spread among people or within organizations. According to Kurt and Kurt (2023), an innovation is simply something that people see as new, while diffusion is the process of how that new idea is shared and eventually accepted by others in a community or group. This means that people don't instantly accept new systems. Instead, they take time to learn about it, understand how it works, and decide if it is useful for them. The theory also explains that people go through different stages before fully accepting an innovation. First, they become aware that it exists. Then, they start to get interested and think about its benefits. After that, they try it out and eventually decide whether to fully accept or reject it based on their experience. It also points out that not everyone adopts new ideas at the same time. Some people are quick to try new things, while others are more cautious and only adopt when they see that it is already proven effective.

According to this study, the theory helps explain how digital filing systems are introduced and accepted in workplaces. At first, only a few people may try using it because it is new and unfamiliar. But as they begin to see how helpful it is, especially in making document storage and retrieval faster and easier, more people start to use it as well. The system becomes widely accepted because users experience its benefits firsthand. Kurt and Kurt (2023) emphasize that the success of any new system does not depend only on the technology itself, but also on how people understand it, accept it, and adjust to using it in their daily work.

Records Management Theory explains that having proper organization and maintenance of records can help increase efficiency in retrieving information and can support the effective management of documents within an organization. It shows that when documents are properly organized, it will be easier to find important files, and the time spent searching is reduced, and the overall performance of office operations is improved. Having good records management can save time, effort, space, and other resources, and also strengthen accountability and promote good governance in organizations. It shows that proper records management is important in ensuring that information is properly managed and easily accessible when needed.

Records Management Theory is relevant to this study because it provides information on how to organize and maintain files properly, which can affect the efficiency of file retrieval. Manual filing systems depend on systematic categorization, such as alphabetical, numerical, or chronological, to maintain files. It is important for small organizations, as it offers high control and low technical costs, but requires physical space, manual maintenance, and a long time to allocate.

Local Literatures

The process of filing is important in office management, considering its function of improving record-keeping and making the office more efficient. Filing can be done manually using physical files or digitally using electronic databases. Bisnar et al.(2026) distinguish the use of digital tools in the North Caloocan City Hall. According to them, digital tools increased the efficiency of work in the City Hall. They found out that digital technologies could enhance the productivity of office work through fast processing and minimal mistakes. The author emphasizes that delays in document retrieval, data loss due to corrupt files, system crashes, and poor Internet connections might affect the speed of work. Digitalization is a way to increase the efficiency of governmental institutions, but the reliability of technology and the preparedness of employees remain important factors. Using digital makes it possible for employees to accomplish their tasks much faster and more coordinated. This study implies that the adoption of modern technologies and systems may lead to enhanced office performance because information exchange becomes faster. According to Caluza (2017), who conducted a study on the Electronic Document Archive Management System (EDAMS) used in a Philippine university registrar's office, manual filing results in lost documents and delays in retrieving them. Meanwhile, digital archiving is more secure and ensures faster retrieval. Aliazas et al. (2024) investigated the use of electronic document management systems in higher education institutions in the Philippines and showed that their use increases the efficiency of administration, facilitates document accessibility, and accelerates the process of processing. This research emphasizes the fact that paper-based systems work much more slowly than electronic document management systems and have a higher chance of making mistakes.

According to Cabaluna & Almacen (2021), dependence on manual record filing systems exposes medical record-keeping to the danger of non-sustainability, especially regarding the preservation of the medical records of patients' pasts. Record keeping is an essential part of healthcare because good record-keeping practices enable healthcare professionals to follow up on a patient's medical history and thus make relevant decisions that will help prevent any further health risks to the patient in the future. With poorly maintained records or inaccurate documents due to a lack of consistency in record management, the care delivered to patients could be substandard. In addition to being at risk of loss in cases of poor maintenance, paper records are very susceptible to damage from environmental conditions like fires, flooding, or even bugs. These records cannot be recovered, and as a consequence, there may not be sufficient records that can give enough information regarding the state of the patient. The ideal alternative is through the use of electronic records storage systems. Electronic record storage has been implemented in highly developed nations for decades with great success. The importance of good record keeping cannot just be confined to the field of medicine alone. It also extends beyond that to other places, such as government agencies. Regardless of whether records are manual or electronic, what matters most is that all records are kept accurately and properly organized. However, in view of the rising need for efficiency and security, many organizations today are opting for electronic file-keeping systems.

The study of Mauricio-Garcia (2024) to investigate the strengths, weaknesses, and strategies associated with secondary school teachers' use of digital platforms in their lesson plans within a specific division. Student engagement and understanding improve as a result of increased teacher engagement and interaction in the classroom. Additionally, digital platforms provide flexibility in the delivery of educational materials, supporting a range of learning styles and paces. It shows the strengths, weaknesses, and skills that digital will provide or demonstrate when used for learning, because this study can provide ideas to inform professional development programs and educational policies. These results show that

the importance given to digital platforms can help facilitate the work and complete it without having to manually spend time on a task.

Digital platforms not only support teaching but also help teachers to perform important tasks in managing and organizing their teaching materials. These tools reduce the need for manual work, making the work faster. It can be used to guide the creation of better training programs for teachers and improve educational applications related to the use of technology. This suggests that digital platforms have a significant role in modern education because they increase the number of tasks such as work, improve performance, and save time. In relation to this study, it supports the idea that digital systems are more usable than manual processes, especially those that require rapid information retrieval.

In the study of research conducted by the Commission on Audit (COA) (2020), effective record management systems help government agencies function efficiently by minimizing the time spent on searching for documents as well as improving the verification process. This is because systematic record management ensures timely transaction processing and improves the provision of services. The National Archives of the Philippines (NAP) emphasizes the need for proper documentation and record-keeping to ensure that all information is accurately stored and accessed when needed. According to Babasa et al. (2002), the development of the Electronic Filing and Payment System was aimed at creating a mechanism for filing and paying taxes that is more efficient compared to manual filing and payment procedures. The study analyzed the two systems based on factors such as time required, satisfaction of users, and cost- all of which contribute to the degree of efficiency achieved through the use of each procedure. This means that the system may help to reduce any delay and complexity involved in performing the transactions by both the taxpayer and the employees of the organization involved. According to Fernandez et al. (2024), some organizations in the Philippines rely on traditional paper-based records, which are time-consuming. A study by Balbontin et al. (2009) was performed in a university office in the Philippines. The results revealed that manual filing systems lead to problems such as poor organization of files, slow search for documents, and ineffective utilization of storage facilities. In addition, Pagayonan (2021) found that digital filing systems significantly improve document retrieval speed, organization, and data accuracy compared to manual filing systems.

As stated in the study, Gamido et al. (2023) explain that the integration of EDMS (electronic document management systems) has led to increased efficiencies in administration within the government. The EDMS offers real-time information through the provision of document storage, retrieval, workflow, auditing, search, and publication services. Furthermore, EDMS usage has led to cost savings for organizations since it cuts down costs associated with paper documents and overheads in preparing and disseminating the documents. An effective document management system is critical to the operation of an organization. The system concentrates on developing an electronic document management system that enhances the effectiveness of document preparation, distribution, dissemination, and archiving. EDMS entails capturing, storing, indexing, and retrieving documents, which enhances information access and retrieval by users. The EDMS transforms paper-based documents into digital records by storing them in an organized file structure and format, minimizing wastage of paper and improving information management. The system supports the sharing of information among stakeholders, adhering to set rules and regulations. The EDMS improves user efficiency since information is available at all times to users, saving them time and enhancing their productivity.

Foreign Literatures

Due to the quick development of ICTs, governments have increasingly adopted various elements of e-government over the last several decades. Digital transformation outside the public sector is constantly reshaping citizens' expectations regarding the necessity for public administrations to provide high-value, real-time digital services (Mergel et al., 2019). According to Enang et al. (2020) and Gil-Garcia et al. (2018), most governments have failed to achieve their goal of making all their public services and processes digital; there has been a substantial growth in adopting innovations, leading to a dramatic change in government organizations. This happened after the result of the COVID-19 pandemic, which has only recently become crucial for moving towards a true digital public administration. These changes are founded on the assumption that the utilization of digital technologies in performing different activities related to public services will lead to increased effectiveness and efficiency in the delivery of these services (Mergel et al., 2023). It is worth noting that the government consistently modifies its operational model for the provision of more efficient and effective services. The e-government literature extensively explores how digitalization has improved the efficiency and effectiveness of public service delivery (Aminah & Saksono, 2021; Margetts & Dunleavy, 2013; Scholl, 2022). Digital transformation beyond

the public sector is reshaping citizens' anticipations regarding governments' capacity to provide high-quality, instantaneous digital services (Clarke, 2020). According to the ideas put forward by Aminah and Saksono (2021), the term e-government can be defined as the application of ICT for providing public services in a more effective and efficient manner. It represents the integration of ICT into governmental operations and delivering government services through the utilization of information technology to enhance the performance of government institutions and services (Rodriguez Dominguez et al., 2011).

According to Dineen & Julien (2019), computers offer enough time to store multiple digital files, folders, downloading, transfer, saving, copying, reviewing, and sharing, and this activity, referred to as File Management (FM), represents a basic and common task that an individual may perform in a job or office environment, particularly in modern times, digital systems play crucial role in carrying out activities correctly, such as computers that are normally used to collect information without human interaction. This review highlights this study on user interactions with digital files in terms of office documentation. The manual filing method is commonly employed to arrange documents based on labels to ensure that all significant records can be quickly located.

Slyngstad & Helgheim (2022), in their study entitled *How Do Different Health Record Systems Affect Home Health Care? A Cross-Sectional Study of Electric vs Manual Documentation System*, examined the differences between electrical (digital) and manual (paper-based) documentation systems. The findings revealed that digital systems reduced the time needed for recording and retrieving documents, leading to greater workflow efficiency. Furthermore, electronic (digital) documentation provided more accurate and consistent record management, while manual (paper-based) systems required more time to organize and locate records. Based on these findings, the researchers concluded that digital documentation systems can enhance operational efficiency, provided that users receive adequate training and that the system is designed to be user-friendly.

As per Englefield & Beale (2025), manual information management is likely to involve the physical searching and organizing of documentation, thereby delaying the search process and ultimately lowering productivity levels in the workplace environment. As elaborated by the authors, manual information management entails the absence of automation tools, meaning that any documentation stored is prone to being misplaced, lost, or scattered due to the fact that manual information management is highly dependent on human labor rather than digital tracking systems.

As cited by Prince (2025), if you look at studies that compare systems, you can see that manual systems are not good because you have to get the documents yourself, which makes things slow at the office, and people do not get as much work done. Manual filing is also bad because you can easily lose documents. There is no system to keep track of them. It is easy to misplace them.

In the contemporary work environment where technologies are now rapidly growing, employers look for secretaries who possess knowledge and skills that can help enhance job performance as the high level of successful skills in Information and Communication Technologies is said to be the key to a secretary's job performance in an increasingly information-based environment, according to Wogboroma, N. & Nwaeke, J.E. (2024). The advancement in technology has changed the traditional operations by adopting computer-based tools that make the work faster, more accessible, and more consistent. Office automation creates a consistent execution of the task that improves the overall workflow in an office and organizations compared to traditional processes, where inconsistencies are always spiking, mostly when faced with workloads. These tools allow the employees to reduce the time spent on a simple task, allowing them to focus on more important responsibilities and reduce repetitive tasks, which greatly improves the employees' performance and avoids ineffective work. This transition of technologies has reshaped the administrative workflow. Thus, the inefficiencies associated with manual processes can be improved when it is adopted in modern technology, along with the overall quality of administrative support. Modern technologies are designed to be more energy efficient and fast that can be used for heavy workloads. It can handle a large volume of documents quickly that are really essential for secretaries and in an office environment. Paperwork is often seen as overwhelming and prone to delays in finishing a certain task, which affects the organization's quality of work and can lead to unwanted challenges. Using these tools can enhance the speed of work and ensure deadlines and proposed timeline, not only does it focus on the actual labor within the office, but it can also improve collaboration and communication within an office. The ability to acquire and learn the skill of adapting to rapid technology advancement shows a higher placement in organizations, and highlights the importance of

adaptability not only in individuals, but in the workplace. Hence, modern processes are significant in enhancing the efficiency, accuracy, and productivity of the secretaries in organizations.

SYNTHESES

Based on the reviewed literature and studies, it is clear that records management plays an important role in how efficient an office can be, especially when it comes to retrieving files. Both local and foreign studies show that there is a clear difference between manual and digital filing systems in terms of speed, accuracy, and overall productivity.

Manual filing systems are still used in many offices because they are simple and familiar. However, many studies describe them as slow and prone to mistakes. When there are too many documents to handle, searching through folders and cabinets can take a lot of time. There is also a higher chance of misplacing or losing important files, which can affect the flow of work (Balbontin et al., 2009; Yulianto et al., 2024; Prince, 2025).

Unlike manual systems, digital filing systems are often seen as more efficient and reliable. Studies show that they make it easier to find documents quickly using search tools, labels, and organized databases. They also help reduce errors and make information more accessible, which improves productivity in the workplace (Pagayonan, 2021; Gamido et al., 2023; Aliazas et al., 2024). In the Philippine setting, several studies also support the use of digital systems, showing that they can make office work faster and more organized, even though some challenges like technical issues and user adjustment may still occur (Bisnar et al., 2026; Cabaluna & Almacen, 2021).

The theories discussed in this chapter also help explain these findings. The Task-Technology Fit Theory states that work becomes more efficient when the system used matches the task being performed (Goodhue & Thompson, 1995). In the same way, Information Processing Theory shows that organized information is easier to understand and retrieve (McLeod, 2024). The Technology Acceptance Model explains that people are more willing to use a system if they find it helpful and easy to use (Schorr, 2023). Meanwhile, the Diffusion of Innovation Theory describes how new technologies, like digital filing systems, are slowly accepted over time as people begin to see their benefits (Kurt & Kurt, 2023). Records Management Theory also supports the idea that proper organization of files leads to faster and more efficient work (Touray, 2021).

Furthermore, both local and international studies show that many organizations, especially in government offices, are moving toward digital systems to improve their services and operations. Digitalization helps make processes faster, more accurate, and more accessible, which is important in today's fast-paced work environment (Commission on Audit, 2020; Mergel et al., 2019; Aminah & Saksono, 2021).

The literature suggests that while manual filing systems still have their place, digital filing systems generally provide better efficiency, especially in terms of file retrieval. However, the success of any system still depends on how well it is used, how familiar employees are with it, and the needs of the organization. This supports the goal of the study, which is to compare both systems and determine which one is more time-efficient in actual office settings.

METHODOLOGY

RESEARCH DESIGN

This study used a quantitative descriptive-comparative research design to analyze the comparison of time efficiency between the manual and digital filing systems. This approach will help the researchers assess the collection and analysis of the required data for this study.

The descriptive-comparative design, on the other hand, will allow the researchers to assess the profile of the respondents and evaluate which of the filing systems is implemented more in office organizations. This method involves gathering data, wherein the researchers will formulate a questionnaire for the study.

RESEARCH LOCALE

The study was conducted in selected government offices located in Parañaque City. These offices serve as key administrative units of the local government and process a large volume of documents and records on a daily basis. The records are managed using both manual and digital filing systems, making the setting appropriate for examining file retrieval efficiency.

The selected government offices represent an actual workplace environment where efficient records management is essential for public service delivery. The presence of both filing systems allows for a clear comparison of their effectiveness in terms of speed, organization, and accessibility of documents retrieval.

RESPONDENTS OF THE STUDY

The respondents consisted of office staff, administrative personnel, and file-recording clerks. Through the purposive sampling, the selection is focused on each participant that has actual experience in using the manual and digital filing system.

The respondents were classified according to their age, gender, job position, and years of experience. This classification enabled the researchers to describe the respondents' demographic profile and examine significant variations in their perceptions and experiences, which is important in testing the study's hypothesis.

SAMPLING TECHNIQUE

This study employed purposive sampling technique to select respondents who are directly involved in records management and file retrieval in selected offices in Parañaque City. This means that the researchers purposely chose participants who have actual experience in using both manual and digital filing systems, making them the most suitable respondents of the study. The number of participants was based on the availability and willingness of office personnel during the data gathering period. The respondents included administrative staff, clerks, records custodians, and other employees whose regular tasks involve organizing, storing, and retrieving office documents. Their daily experience with filing systems helped provide accurate and relevant information for the research.

Purposive sampling is appropriate for this study because it focuses on individuals who have direct knowledge of the topic being examined. Since the study aims to compare the time efficiency of manual and digital filing systems, choosing respondents who actively use these systems helped the researchers gather more reliable and meaningful data.

RESEARCH INSTRUMENT

The main instrument used in this study was a survey questionnaire using google forms. The questionnaire contained questions about the average time of retrieval using manual and digital filing systems, comparison of time efficiency, problems encountered during retrieval, and identification of which system is more efficient.

A 5-point Likert Scale was used:

- 5 – Strongly Agree
- 4 – Agree
- 3 – Neutral
- 2 – Disagree
- 1 – Strongly Disagree

The survey questionnaire is useful for collecting data because it enables the researchers to collect answers in a clear, structured, and measurable way. Since file retrieval time is the main focus of the study, it helps the respondents provide more accurate answers and to easier compare and analyze the data.

Before the actual data collection, the questionnaire underwent content validation by Rodel C. Mendoza, MBA, Research Mentor. His comments and recommendations regarding the clarity, relevance, and appropriateness of the questionnaire items were incorporated to improve the instrument.

DATA GATHERING PROCEDURE

Approval to conduct the study was first secured from the administrations of selected government offices in Parañaque City where the research was carried out. A formal request letter was sent to the concerned offices asking permission to distribute the survey questionnaire and conduct the data gathering process. After approval, the researchers coordinated with office heads and assigned personnel to make sure the activity would be organized and convenient for everyone involved.

Prior to the conduct of the study, the researchers also secured the approval of the research adviser and complied with the research requirements of the Polytechnic University of the Philippines- Parañaque City Campus. Institutional permission from the participating government offices was obtained before the administration of the survey questionnaire.

The data gathering procedure was conducted under the guidance of Rodel C. Mendoza, MBA, Research Mentor, who provided direction in the preparation, validation, distribution, and collection of the research instruments.

Before participating, the respondents were clearly informed about the purpose of the study, the confidentiality of their answers, and that their participation was completely voluntary. Informed consent was obtained from all participants before the survey was given.

The survey questionnaire was administered during scheduled office hours and coordinated sessions in the selected government offices in Parañaque City to ensure convenience and minimal disruption to daily operations. The questionnaire was distributed through Google Forms to selected office staff, administrative personnel, records custodians, and employees who regularly handle file management and retrieval. Respondents were given enough time to answer the questionnaire honestly and based on their actual experiences using both manual and digital filing systems.

After the completion of the survey, the responses were collected, organized, checked for completeness and accuracy, and then tallied for statistical analysis.

DATA ANALYSIS

The following statistical tools were utilized in the study:

Frequency and Percentage Distribution - this method is for respondents' profile (age, sex, job position & etc.)

Mean (Average) - the tool to measure the average file retrieval time and survey responses.

Standard Deviation - this statistic will show how consistent or varied the responses are.

T-test - used to determine if there is a significant difference in file retrieval time between manual and digital filing systems.

ETHICAL CONSIDERATION

The study was conducted in accordance with established ethical research principles. Prior to data collection, permission to conduct the study was obtained from the concerned government offices and the approval of the research adviser and the Polytechnic University of the Philippines- Parañaque City Campus was secured.

Prior to participation, respondents were provided with a clear explanation of the research's objective and purpose before involvement, ensuring voluntary participation and that respondents have the right not to be involved. An informed consent form was provided for all the participants before they answered the questionnaire.

In addition, it is guaranteed that all the data and other information gathered were treated with strict confidentiality and were used solely for academic and research purposes without bias or manipulation of the data. No data were altered or manipulated throughout the conduct of the study.

SUMMARY

This chapter presents the methodology employed to examine and compare the time efficiency of the manual and digital filing systems in selected government offices in Parañaque City. The study utilized a quantitative descriptive - comparative research design and purposive sampling to obtain data from qualified respondents. A structured survey questionnaire served as the primary data collection instrument, while appropriate statistical treatments were applied to ensure the reliability and objectivity of the result.

The chapter outlined the research locale, respondents, sampling technique, data gathering procedures, analysis, and ethical considerations observed throughout the conduct of the study. The methodology provided a systematic framework for obtaining reliable data to address the research objectives.

PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

This chapter presents the data gathered from the respondents of the study. The information collected is organized, analyzed, and interpreted in accordance with the objectives of the research. Tables and statistical tools are used to clearly present the findings and to provide a better understanding of the results.

Furthermore, this chapter highlights the significant patterns, relationships, and trends observed from the data. Each set of data is carefully examined to support the research questions and to determine whether the proposed assumptions of the study are accepted or rejected. The analysis aims to provide meaningful insights that will serve as the basis for the conclusions and recommendations presented in the succeeding chapter.

SOP 1. Demographic profile of the respondents

Table 1. Distribution of Respondents According to Age

Age Bracket	Frequency	Percentage (%)
20 - 30	67	67%
31 - 40	22	22%
41 - 50	7	7%
51 - 60	4	4%
Total	100	100%

Analysis

Table 1 displays the respondents' distribution by their respective age groups. Of the 100 respondents, most of them fall under the age group 20-30 years old with a percentage of 67%. This means that most of the respondents are young adults. Age group 31-40 years old scored 22% which is the second largest age group among all. Respondents aged 41-50 years have the percentage of 7%, while those aged 51-60 have only 4%.

Interpretation

From the findings, it is clear that the respondent population comprises mainly young people who fall in the generation of working people, specifically those within the age bracket of 20-30 years old. The few respondents that fall within the age bracket of 41-60 indicate that the total respondent sample does not comprise many people within this age bracket. The findings of the research are thus unlikely to be guided by the preferences and opinions of people within this age bracket. To conclude, the findings show that the main respondents are young adults implying that there are quite many young employees in the firm under study.

Table 1.1. Distribution of Respondents According to Gender

Gender	Frequency	Percentage (%)
Female	56	56%
Male	44	44%
Total	100	100%

Analysis

Table 1.2 depicts the classification of the respondents based on their gender. From the total of 100 respondents, 56% are women, while 44% are men. Thus, the data show that women respondents make up the majority of the study sample.

Interpretation

Based on the results obtained, the study appears to have more women respondents than men respondents. However, despite the higher number of women respondents, the relatively equal distribution between male and female respondents

indicates that the study has captured the views of both genders. Overall, the data clearly show that women are the majority of the respondents, while men are a substantial minority of the study sample.

Table 1.2. Distribution of Respondents According to Job Classification

Job Classification	Frequency	Percentage (%)
Office and Administrative Personnel	73	73%
Operations Personnel	15	15%
Supervisory and Managerial Personnel	12	12%
Total	100	100%

Analysis

Table 1.3 displays the breakdown of respondents based on their job classification. Among the 100 respondents, the highest percentage is represented by the Office and Administrative Personnel with a percentage of 73% out of the total number of people. This shows that the greatest number of respondents in the study are workers who have been assigned to carry out administrative and office tasks. The percentage of Operations Personnel is 15%, which is less than those doing administrative work in the office.

Interpretation

This means that the context of the research is dominated by Office and Administrative Personnel, considering the high level of representation among them. The low levels of representation among Operations Personnel and Supervisory and Managerial Personnel could mean that not many people have roles as operators or supervisors/managers. All in all, it could be stated that Office and Administrative Personnel hold an important position within the company and dominate among respondents.

Table 1.3. Distribution of Respondents According to Years of Experience in the Job

Years of Experience	Frequency	Percentage (%)
Less than 1 year	16	16%
1 - 5 years	44	44%
6 - 10 years	25	25%
11 years and above	15	15%
Total	100	100%

Analysis

Table 1.4 below gives a breakdown of respondents based on years of experience. In a population of 100 respondents, the biggest percentage belong to the 1-5 years category representing 44% of the total population. This shows that the majority of respondents are at the initial stage of their career development. Those with years of experience less than one year comprise 16%. Those in the 6-10 years of experience make up 25% which is the second largest group in terms of percentages. Finally, those with years of experience equal to and above 11 years are the smallest group of respondents comprising 15%.

Interpretation

From the results, it can be inferred that most of the respondents are early career employees, especially those with 1-5 years of work experience. It is thus clear that the study findings have been drawn from the perceptions of comparatively

less experienced people who might be in the process of developing their professional abilities. It can also be noted that a smaller number of the respondents have over 10 years of experience. In other words, people with a high level of experience are few in the respondent group. It is likely, therefore, that the results will reflect more of the perception of early career and mid-career respondents than veteran employees.

SOP 2. What is the average time of file retrieval when using the following system:

Table 2. Average Time of Manual Filing System

Manual Filing System	Retrieval Time	Frequency	Percentage (%)
How long does it take to retrieve a file using the manual filing system?	Less than 1 minute	2	2%
	1 - 3 minutes	23	23%
	4 - 6 minutes	35	35%
	7 - 10 minutes	20	20%
	More than 10 minutes	20	20%
Total		100	100%

Analysis

The table shows that the majority of respondents (35%) reported that retrieving files using the manual filing system takes 4 to 6 minutes. This was followed by 1–3 minutes (23%), 7–10 minutes (20%), and more than 10 minutes (20%), while only 2% of the respondents indicated that manual file retrieval takes less than one minute.

These findings are consistent with recent local and international studies on records management. Wagan et al. (2025) found that manual filing systems require more time for document retrieval because employees must physically search and organize paper records, resulting in slower office operations. Similarly, Fernandez et al. (2024) reported that organizations relying on traditional paper-based records experience delays in locating documents, particularly when managing large volumes of files. Internationally, Englefield and Beale (2025) explained that manual information management depends on physical document handling, which slows retrieval and reduces workplace productivity. Likewise, Prince (2025) emphasized that manual filing systems increase retrieval time due to the need for manual searching and the greater likelihood of misplaced documents.

Interpretation

Based on the results, it usually takes a few minutes to find the required document while utilizing the manual filing system. This may affect productivity and delay office transactions and document processing. Overall, the manual filing system received 35% of the responses in the 4-6 minute retrieval time category. On the other hand, the digital filing system received 60% of the responses in the 1-3 minute category. This shows that the digital filing system allows faster retrieval of files compared to the manual filing system. As a result, in terms of file accessibility and retrieval time, the digital filing system is more effective in terms of file accessibility and retrieval time.

Table 2.1. Average Time of Digital Filing System

Digital Filing System	Retrieval Time	Frequency	Percentage (%)
	Less than 1 minute	21	21%

How long does it take to retrieve a file using the digital filing system?	1 - 3 minutes	60	60%
	4 - 6 minutes	8	8%
	7 - 10 minutes	5	5%
	More than 10 minutes	6	6%
Total		100	100%

Analysis

The table shows that 60% of the respondents reported that retrieving files using the digital filing system takes 1 to 3 minutes, while 21% stated that retrieval takes less than one minute. Only a small percentage of respondents experienced retrieval times exceeding four minutes, indicating that digital filing systems enable faster access to documents.

Interpretation

These findings are consistent with the local studies of Aliazas et al. (2024) and Gamido et al. (2023), which reported that electronic document management systems improve document accessibility, reduce retrieval time, and enhance administrative efficiency. Similarly, Wagan et al. (2025) found that digital records management systems increase workplace productivity by allowing employees to locate documents more quickly. Internationally, Nguyen and Mohamed (2021) emphasized that structured digital information management systems improve work efficiency by providing faster access to records, while Mergel et al. (2023) highlighted that digital transformation streamlines administrative processes and enhances organizational performance. The similarity between the present study and previous research suggests that digital filing systems improve retrieval efficiency through electronic indexing, search functions, and organized databases.

SOP 3. Is there a significant difference between manual and digital filing systems in the process of file retrieval?

Table 3.

Indicators	Weighted Mean	Standard Deviation	Verbal Interpretation
Manual filing systems require more time to retrieve a document compared to digital systems.	4.07	0.96	Agree
It is more convenient to retrieve files using the manual filing system.	3.18	1.01	Neutral
I am more likely to retrieve the correct file using the digital filing system than the manual system.	4.12	0.89	Agree
I can retrieve manual files anytime without difficulty.	3.31	1.08	Neutral
Overall Mean	3.67	0.99	Agree

Analysis

The table shows that the highest weighted mean of 4.12 indicates that respondents agree they are more likely to retrieve the correct file using the digital filing system than the manual filing system. Respondents also agreed that manual filing

systems require more time to retrieve documents ($M = 4.07$). The overall weighted mean of 3.67 indicates that respondents generally perceive digital filing systems as more efficient in file retrieval.

Interpretation

These findings are consistent with the local studies of Gamido et al. (2023) and Aliazas et al. (2024), which concluded that electronic document management systems improve retrieval accuracy, document organization, and administrative efficiency. Similarly, Wagan et al. (2025) reported that digital records management systems help employees retrieve information more accurately and efficiently. Internationally, Nguyen and Mohamed (2021) found that digital information management systems improve accessibility and operational performance, while Mergel et al. (2023) explained that digital transformation enhances the efficiency of administrative processes by reducing delays in accessing information.

Table 3.1. Significant Difference Between Manual and Digital Filing Systems in the Process of File Retrieval

Variables	Mean	SD	t-value	p-value	Decision	Interpretation
Manual Filing System	3.29	1.02				
Digital Filing System	4.18	0.87	-7.63	0.000	Reject Ho	Significant

Analysis

This table shows the significance difference between manual and digital filing systems in file retrieval using the Paired Sample t-test. The manual filing system obtained a mean score of 3.29 with a standard deviation of 1.02, while the digital filing system obtained a higher mean score of 4.18 with a standard deviation of 0.87. Perceiving digital filing systems as more efficient in file retrieval compared to manual filing systems. The computed value of -7.63 and the p-value 0.000 are both lower than the 0.05 level of significance. As a result, null hypothesis is rejected. Thus, shows that there is a significant difference between manual and digital filing systems in file retrieval.

Interpretation

The findings are consistent with the local studies of Gamido et al. (2023) and Aliazas et al. (2024), which concluded that electronic document management systems significantly improve document retrieval, workflow efficiency, and records management compared to traditional filing methods. Likewise, Wagan et al. (2025) found that digital records management systems contribute to faster processing and improved organizational productivity. Internationally, Nguyen and Mohamed (2021) reported that digital information management systems enhance efficiency by improving document accessibility, while Mergel et al. (2023) emphasized that digital transformation improves organizational performance by streamlining administrative processes.

SOP 4. What are the problems/issues encountered by the respondents during the process of file retrieval when using manual and digital filing systems?

Table 4. Statistical Analysis of Problems/Issues Encountered During File Retrieval

Statement	Weighted Mean	Standard Deviation	Verbal Interpretation
Retrieving files manually takes too much time, especially when handling a large volume of records	4.31	0.98	Strongly Agree
System crashes or software errors interrupt the process of retrieving digital files	4.18	0.96	Agree
Technical issues (internet or	4.29	1.02	Strongly Agree

software) delay file retrieval			
Files are difficult to retrieve due to a lack of proper categorization	4.16	1.01	Agree
Overall Mean	4.24	-	Strongly Agree

Analysis

The results show that respondents strongly agree overall (M=4.24) that there are significant problems in file retrieval, reflecting inefficiencies in both manual and digital filing systems. The highest concerns are the time-consuming process of manual retrieval (M=4.31), and technical issues such as internet or software delays (4.29), both interpreted as Strongly Agree. Meanwhile, system crashes or software errors (M=4.18) and lack of proper file categorization (M=4.16) are interpreted as Agree.

Interpretation

These findings are consistent with the local studies of Gamido et al. (2023) and Fernandez et al. (2024), which reported that while digital filing systems improve efficiency, technical problems and inadequate system maintenance can interrupt document retrieval. Similarly, Wagan et al. (2025) noted that organizations implementing digital records management still encounter challenges related to system reliability and user preparedness. Internationally, Mergel et al. (2023) explained that successful digital transformation depends not only on technology but also on reliable infrastructure and employee readiness. Likewise, Englefield and Beale (2025) emphasized that manual filing systems remain inefficient because physical document handling requires more time and effort.

SOP 5. Which between the manual and digital filing system demonstrates a greater time efficiency in the retrieval of files in an office environment?

Table 5. Time Efficiency of Manual and Digital Filing Systems in File Retrieval

Indicators	Weighted Mean	Standard Deviation	Verbal Interpretation
Manual filing systems require more time to retrieve a document compared to digital systems.	4.08	1.02	Agree
The manual filing system takes more time in locating needed documents.	4.14	1.01	Agree
Using a digital filing system improves efficiency in office file retrieval.	4.29	0.95	Strongly Agree
Digital filing systems reduce delays during file retrieval.	4.14	0.98	Agree
Overall, the digital filing system is more time-efficient than the manual filing system.	4.31	0.93	Strongly Agree
Overall Mean	4.19	4.19	Agree

Analysis

The table presents the respondents' assessment regarding the time efficiency of manual and digital filing systems in file retrieval. The highest weighted mean of 4.31 indicates that respondents strongly agree that the digital filing system is more time-efficient than the manual filing system. Likewise, respondents strongly agree that using a digital filing system improves efficiency in office file retrieval ($M=4.29$). On the other hand, the indicators stating that manual filing systems require more time to retrieve documents ($M=4.08$) and that manual filing systems take more time in locating needed documents ($M=4.14$) were verbally interpreted as Agree. Respondents also agree that digital filing systems help reduce delays during file retrieval ($M=4.14$). Overall, the table obtained an overall weighted mean of 4.19, verbally interpreted as Agree. This indicates that respondents generally perceive digital filing systems as more efficient and faster compared to manual filing systems in terms of file retrieval.

Interpretation

These findings are consistent with the local studies of Gamido et al. (2023) and Aliazas et al. (2024), which found that electronic document management systems significantly improve document retrieval, reduce processing time, and enhance records management efficiency. Similarly, Wagan et al. (2025) reported that the adoption of digital records management systems enables organizations to improve productivity by allowing faster access to information and more efficient document handling. Internationally, Nguyen and Mohamed (2021) found that digital information management systems enhance organizational efficiency by improving document accessibility and reducing retrieval time. Likewise, Mergel et al. (2023) emphasized that digital transformation enables organizations to streamline administrative processes, improve service delivery, and increase operational efficiency through the effective use of digital technologies.

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

SUMMARY OF FINDINGS

The study aimed to compare manual and digital filing systems in terms of file retrieval efficiency in office environments. Specifically, it sought to determine the demographic profile of the respondents; identify the average retrieval times for both filing systems; determine whether there is a significant difference between the two systems; identify the problems encountered during file retrieval; and determine which filing system demonstrates greater time efficiency. The respondents of the study varied in terms of age, gender, job position, and years of experience, providing diverse perspectives regarding the use of filing systems in office environments.

Based on the findings on retrieval time, the manual filing system generally required more time in locating and retrieving files. Most respondents (35%) reported that retrieving files manually took 4–6 minutes, while some (20%) reported more than 10 minutes. In comparison, many respondents using digital filing systems reported shorter retrieval times, with 60% stating that files could be retrieved within 1–3 minutes and 21% reporting retrieval times of less than one minute.

In terms of efficiency and effectiveness, the respondents generally agreed that digital filing systems provided advantages in file retrieval and organization. The weighted average score of 3.67 indicated agreement regarding the efficiency, accuracy, and reduced retrieval time associated with digital filing systems. In addition, the paired sample t-test showed a significant difference between the manual and digital filing systems with a p-value of 0.000, indicating that the two systems differ in terms of file retrieval efficiency.

The findings also showed that both filing systems have corresponding challenges. For manual filing systems, respondents identified the retrieval and organization of records as time-consuming, especially when handling large volumes of files. For digital filing systems, respondents mentioned problems such as system crashes, internet connectivity issues, software malfunctions, and improper organization of digital files. These factors may affect the retrieval process and office workflow.

Overall, the findings showed differences between manual and digital filing systems in terms of retrieval time and efficiency. Based on the responses gathered, digital filing systems were associated with shorter retrieval times and more organized file management, while manual filing systems were viewed as more time-consuming in certain situations. The overall average score of 4.19 reflected the respondents' assessment of the efficiency of digital filing systems in office environments.

CONCLUSIONS

Based on the results gathered, it was concluded that digital filing systems are more efficient, faster, and more effective compared to manual filing systems in terms of file retrieval in an office environment.

The findings revealed that the respondents had longer retrieval times in manual filing systems, with the majority concluding that retrieving files manually usually takes 4 to 6 minutes or more. However, most of the respondents agreed that digital filing systems enable files to be retrieved within 1 to 3 minutes. These results highlighted that digital systems provide quicker access to files and improve workflow efficiency in offices.

The study also found a significant difference between the manual and digital filing systems in terms of file retrieval efficiency. As can be found from the statistical findings, the computed value of p was lower than the value of the level of significance, which led to the rejection of the null hypothesis. This concluded that digital filing systems have significantly outperformed manual filing systems in terms of speed, accuracy, and convenience during the retrieval process.

Furthermore, the findings of the study support the Task-Technology Fit Theory of Goodhue and Thompson, which explains that work performance improves when the technology being used properly matches the tasks that need to be performed. The results of the study showed that digital filing systems were generally more effective in supporting file retrieval tasks because they allowed faster access to documents, reduced delays, and improved organization. However, the study also found that digital systems still experience challenges such as technical issues, internet problems, and software errors that may affect retrieval efficiency.

On the other hand, manual filing systems were observed to require more time in retrieving files, especially when handling large volumes of documents. Despite this, some employees may still find manual filing useful in situations where physical verification of documents is necessary or when digital systems are unavailable. This means that both filing systems have their own advantages and limitations depending on the needs and situation of the office.

Overall, the study concludes that the effectiveness of a filing system does not depend only on the system itself, but also on how well it fits the tasks, the organization of records, and the ability of employees to properly use the system. Therefore, offices should continue improving both technological support and records management practices to achieve better efficiency and productivity in file retrieval.

RECOMMENDATIONS

As the results show, the following recommendations are proposed to improve records management procedures in office settings using both manual and digital filing systems. These recommendations aim to increase the effectiveness of file retrieval and provide support for future researchers and employees.

1. **For Employees:** Employees should participate in training programs and seminars related to digital filing systems to improve their knowledge, technical skills, and ability to retrieve and manage files more efficiently.
2. **For Government Offices:** Government offices in Parañaque City are encouraged to continue improving their digital filing systems by adopting updated technologies and ensuring proper maintenance of digital records to support faster and more efficient file retrieval.
3. **For Office Administrators:** Office administrators should ensure that documents are properly organized, labeled, and categorized in both manual and digital filing systems to reduce delays and improve accessibility of records.
4. **For Organizations:** Organizations are encouraged to gradually integrate digital filing systems while maintaining necessary physical records for backup, legal purposes, and document security. Proper planning and monitoring should also be observed during the transition process.
5. **For Future Researchers:** Future researchers may conduct related studies in different institutions or industries and explore other variables affecting the efficiency and effectiveness of manual and digital filing systems. This may help provide additional information and address gaps identified in the present study.

SUMMARY OF THE OVERALL STUDY

“A Comparative Analysis of File Retrieval in Time Efficiency: Manual and Digital Filing Systems in Office Environment in Parañaque City” was conducted to assess which filing system is more efficient in terms of the efficiency of file retrieval. The study focused on analyzing the comparison of manual and digital filing systems by identifying the average

retrieval time and challenges encountered in retrieving files to discover whether there is a significant difference between the two systems. This includes the demographic profile of the respondents, that made a better understanding of their views and knowledge of the systems.

The researchers utilized a survey questionnaire to gather the data that attained study's objectives. The findings showed that manual filing systems were generally slower in retrieving files. Conversely, digital filing systems allowed for faster retrieval. In addition, the results provide an answer to the study that there is a significant difference in the efficiency of file retrieval. Indicating that digital filing systems perform better than manual filing systems in terms of speed, accessibility, and overall efficiency. However, it was also highlighted that, despite the effectiveness of the digital filing system, digital filing systems also experience challenges just as manual filing systems. This concludes that both filing systems serve their purpose in their own effectiveness.

This study provided valuable insights that can help government environments, employees, and future researchers improve filing procedures, enhance records management practices, and increase productivity and efficiency in office environments.

REFERENCES

- Ahmad, B. I. (2025). *E-filing and digital records: Filing systems and digital record-keeping*. National Judicial Institute. https://nji.gov.ng/assets/publication/Session-8_Efiling-and-Digital-Records.pdf
- Aliazas, J. V., Dela Cruz, R., & Ilagan, N. (2024). Enhancing university operations: A study of the electronic document management systems (EDMS). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5714542
- Alshibly, H., Chiong, R., & Bao, Y. (2016). Investigating the critical success factors for implementing electronic document management systems in governments: Evidence from Jordan. *Information Systems Management, 33*(4), 287–301. <https://doi.org/10.1080/10580530.2016.1220213>
- Almacen, A. M. B., & Cabaluna, A. Y. (2021). Electronic document management system (EDMS) implementation: Implications for the future of digital transformation in Philippine healthcare. *Journal of Computer Science and Technology Studies, 3*(2), 82–90. <https://doi.org/10.32996/jcsts.2021.3.2.8>
- Aminah, S., & Saksono, H. (2021). Digital transformation of the government: A case study in Indonesia. *Jurnal Komunikasi: Malaysian Journal of Communication, 37*(2), 272–288. <https://ejournal.ukm.my/mjc/article/view/48659>
- Babasa, L. R., Go, K. A., Go, S. C., Mariano, M. P., Paulino, C. A., & Tan, A. P. (2002). *A comparative evaluation of the electronic filing and payment system (EFPS) and the manual filing and payment system of the Bureau of Internal Revenue (BIR)* (Bachelor's thesis, De La Salle University). Animo Repository. https://animorepository.dlsu.edu.ph/etd_bachelors/14061
- Balbontin, P. A., Cahilig, S. A., Elecanal, E. T., Navarro, C. R., & Villafania, S. D. (2009). *Electronic document archiving system*. Central Philippine University. <https://www.researchgate.net/publication/322219535>
- Bisnar, M., Ramirez, C. J., Punay, M. M., Loberas, J., Felizarta, J., Bainto, D. I., & Embile, K. J. B. (2026). Optimize office productivity: An evaluation of digital tools' effectiveness at North Caloocan City Hall. *Ascendens Asia Singapore–Bestlink College of the Philippines Journal of Multidisciplinary Research, 7*(1). <https://ojs.aaresearchindex.com/index.php/aasgbcpjmra/article/view/15863>

- Caluza, L. J. B. (2017). Development of electronic document archive management system (EDAMS): A case study of a university registrar in the Philippines. **International Journal of Digital Information and Wireless Communications*, 7*(2), 106–117. <https://www.researchgate.net/publication/322219535>
- Clarke, A. (2020). Digital government units: What are they, and what do they mean for digital era public management renewal? **International Public Management Journal*, 23*(3), 358–379. <https://www.tandfonline.com/doi/full/10.1080/10967494.2019.1686447>
- Commission on Audit. (2020). **Title of the annual audit report**.
<https://www.coa.gov.ph>
- Dinneen, J. D., & Julien, C.-A. (2020). The ubiquitous digital file: A review of file management research. **Journal of the Association for Information Science and Technology*, 71*(1), E1–E32.
<https://doi.org/10.1002/asi.24222>
- Enang, I., Asenova, D., & Bailey, S. J. (2020). Identifying influencing factors of sustainable public service transformation: A systematic literature review. **International Review of Administrative Sciences*, 88*(1), 258–280. <https://journals.sagepub.com/doi/abs/10.1177/0020852319896399>
- Englefield, P., & Beale, R. (2025). Managing personal information: Tactics, strategies, and outcomes. **Interacting with Computers**. Advance online publication. <https://academic.oup.com/iwc/advance-article/doi/10.1093/iwc/iwaf054/8377849?login=false>
- Fernandez, et al. (2024). Records management practices in Philippine organizations. <https://scholar.google.com/scholar?q=Fernandez+et+al.+2024+records+management+Philippines>
- Gamido, M. V., Gamido, H. V., & Macaspac, D. J. P. (2023). Electronic document management system for local area network-based organizations. **Indonesian Journal of Electrical Engineering and Computer Science*, 31*(2), 1154–1163 https://www.researchgate.net/publication/372814922_Electronic_document_management_system_for_local_area_network-based_organizations
- Gil-Garcia, J. R., Dawes, S. S., & Pardo, T. A. (2018). Digital government and public management research: Finding the crossroads. **Public Management Review*, 20*(5), 633–646. <https://www.tandfonline.com/doi/full/10.1080/14719037.2017.1327181>
- Goodhue, D. L., & Thompson, R. L. (1995). Task-technology fit and individual performance. **MIS Quarterly*, 19*(2), 213–236. <https://doi.org/10.2307/249689>
- Katuu, S. (2016). Managing digital records in a global environment: A review of the landscape of international standards and good practice guidelines. **The Electronic Library*, 34*(5), 869–894. <https://doi.org/10.1108/EL-04-2015-0064>
- Kurt, S. (2023, September 16). **Diffusion of innovations theory**. Educational Technology.
<https://educationaltechnology.net/diffusion-of-innovations-theory/>
- Margetts, H., & Dunleavy, P. (2013). The second wave of digital governance: A quasi-paradigm for government on the Web. **Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 371*(1987), 20120382. <https://royalsocietypublishing.org/rsta/article/371/1987/20120382/59483/The-second-wave-of-digital-era-governance-a-quasi>
- Mauricio-Garcia, S. M. (2024). Benefits, challenges, and practices on the utilization of digital platform among secondary school teachers in a division. **International Journal of Multidisciplinary: Applied Business and Education Research*, 5*(8), 3191–3194. <https://ejournals.ph/article.php?id=24398>
- Mergel, I., Edelman, N., & Haug, N. (2019). Defining digital transformation: Results from expert interviews. **Government Information Quarterly*, 36*(4), 101385. <https://www.sciencedirect.com/science/article/pii/S0740624X18304131>

- Mergel, I., Dickinson, H., Stenvall, J., & Gasco, M. (2023). Implementing AI in the public sector. *Public Management Review*. Advance online publication. <https://www.tandfonline.com/doi/full/10.1080/14719037.2023.2231950>
- Mladenović, N. (2022, October 12). *Why employees refuse to adopt new tools: Technology aversion or simply fear of change?* Lorino. <https://www.lorino.app/blog/resistance-to-change-how-to-encourage-fast-technology-adoption>
- Pagayonan, S. M. S. (2021). Record management system with document control. *International Journal of Multidisciplinary Research and Analysis*, 4*(12), 1929–1934. <https://www.researchgate.net>
- Prince. (2025). *Manual vs. digital record-keeping systems*. Prezi. <https://prezi.com/p/hxgecspm8shp/manual-vs-digital-record-keeping-systems/>
- Rahman, H. U., Nawaz, N., Kodikal, R., & Hariharasudan, A. (2021). Effective information system and organisational efficiency. *Polish Journal of Management Studies*, 24*(2), 398–413. https://www.researchgate.net/publication/357478025_Effective_information_system_and_organisational_efficiency
- Mendoza, R. C., & Catugda, A. (2024). Assessing work-life harmony among call center representatives: A comparative analysis of motivation frameworks for day and night shifts in Parañaque City. *Library Progress International*, 44*(3), 7976–7986. [bapasjournals.com. https://doi.org/10.48165/bapas.2024.44.2.1](https://doi.org/10.48165/bapas.2024.44.2.1)
- Rodríguez-Domínguez, L., García-Sánchez, I. M., & Gallego-Álvarez, I. (2011). Determining factors of e-government development: A worldwide national approach. *International Public Management Journal*, 14*(2), 218–248. <https://www.tandfonline.com/doi/full/10.1080/10967494.2011.597152>
- Simply Psychology. (2026, April 1). *Information processing theory in psychology*. <https://www.simplypsychology.org/information-processing.html>
- Scholl, H. J. (2022). Digital government research: A diverse domain. In Y. Charalabidis, L. S. Flak, & G. V. Pereira (Eds.), *Scientific foundations of digital governance and transformation* (pp. 51–71). Springer. https://link.springer.com/chapter/10.1007/978-3-030-92945-9_3
- Slyngstad, L., & Helgheim, B. I. (2022). How do different health record systems affect home health care? A cross-sectional study of electronic- versus manual documentation systems. *International Journal of General Medicine*, 15, 1945–1956. <https://doi.org/10.2147/IJGM.S346366>
- Storetec. (2026). Office Filing System Guide: Paper vs Digital Document Management. <https://storetec.net/blog/how-to-organise-office-files/>
- Kittanah, K. M. S., & Abu Jarour, S. F. A. (2016). The impact of electronic documents management on performance. *Global Journal of Management and Business Research: A Administration and Management*, 16*(1), 1–15. https://journalofbusiness.org/index.php/GJMBR/article/download/1893/1-The-Impact-of-Electronic-Documents_html?inline=1
- Touray, R. (2021). A review of records management in organisations. *Open Access Library Journal*, 8*(12), e8107. [10.4236/oalib.1108107](https://www.oalib.com/oalib.php?id=1108107)
- Udo, R. A., & Essien, E. E. (2020). Records management practices and service delivery in public institutions. *Journal of Library and Information Science Research*, 4*(2), 45–62. https://www.researchgate.net/publication/344125678_Records_Management_Practices_and_Service_Delivery_in_Public_Institutions