

## The Effectiveness of Performance of E-Office System in Tanzania's Public Institutions

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**Abstract.** The main objective of this study was to examine the effectiveness of the performance of the e-office system in Tanzania's Public Institutions at the President's Office of Public Service Management and Good Governance (POPSMGG). Specifically, the study determined the extent to which the e-office system is used at PO PSMGG, assessed the impact of using the e-office system at PO PSMGG, and examined the challenges faced in using the e-office system at PO PSMGG. The study adopted a cross-sectional research design. A total of 132 participants participated in this study, equal to an 86.8% response rate. The Resource-Based View theory guided the study. The study employed questionnaires and interview methods to collect data. The findings revealed that the majority of respondents, 58%, said they use e-office daily. The study results indicated that most respondents, 90%, agreed that the e-office system improves customer service. The findings revealed that most of the respondents, 71% disagreed with the statement that the lack of adequate ICT infrastructure affects the POPSMGG to use the e-office system. Also, the study revealed that most of the respondents, 59% disagreed with the statement that the most significant barrier to using the e-office system is a lack of willingness to use the system. Generally, the overall results regarding the challenges experienced when using the e-office system showed that most respondents indicated issues such as unreliable power supply, security concerns, and technology dependency. The study recommends that the government integrate the e-office system with other government systems to facilitate data and information sharing.

**Keywords:** E-office System; Electronic Office System; Tanzania; Public Institutions

**Abstrak.** Tujuan utama dari penelitian ini adalah untuk menguji efektivitas kinerja sistem e-office pada Lembaga Publik Tanzania pada Manajemen Pelayanan Publik dan Tata Kelola Pemerintahan yang Baik (POPSMGG) Kantor Presiden. Secara khusus, penelitian ini mengetahui sejauh mana penggunaan sistem e-office di PO PSMGG, menilai dampak penggunaan sistem e-office di PO PSMGG, dan mengkaji tantangan yang dihadapi dalam penggunaan sistem e-office di PO PSMGG. Penelitian ini mengadopsi desain penelitian cross-sectional. Sebanyak 132 peserta berpartisipasi dalam penelitian ini, setara dengan tingkat respons 86,8%. Teori Pandangan Berbasis Sumber Daya memandu penelitian ini. Penelitian ini menggunakan metode kuesioner dan wawancara untuk mengumpulkan data. Temuan menunjukkan bahwa mayoritas responden, yaitu 58%, mengatakan mereka menggunakan e-office setiap hari. Hasil penelitian menunjukkan bahwa sebagian besar responden yaitu 90% setuju bahwa sistem e-office meningkatkan layanan pelanggan. Hasil temuan mengungkapkan bahwa sebagian besar responden yaitu 71% tidak setuju dengan pernyataan bahwa kurangnya infrastruktur ICT yang memadai mempengaruhi POPSMGG untuk menggunakan sistem e-office. Penelitian ini juga mengungkapkan bahwa sebagian besar responden, 59%, tidak setuju dengan pernyataan bahwa hambatan paling signifikan dalam menggunakan sistem e-office adalah kurangnya kemauan untuk menggunakan sistem tersebut. Secara umum, hasil keseluruhan mengenai tantangan yang dialami saat menggunakan sistem e-office menunjukkan bahwa sebagian besar responden menunjukkan permasalahan seperti pasokan listrik yang tidak dapat diandalkan, masalah keamanan, dan ketergantungan teknologi. Studi ini merekomendasikan pemerintah untuk mengintegrasikan sistem e-office dengan sistem pemerintahan lainnya untuk memfasilitasi pertukaran data dan informasi.

**Kata Kunci:** Sistem E-Office; Sistem Kantor Elektronik; Tanzania; Institusi Publik

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## INTRODUCTION

Information and Communication Technology (ICT) has transformed all aspects of human life. Omran and Nadeem (2019) indicated an increased need for the application of ICT in human life, including how records are managed in offices. The traditional approach to record management in offices has been reported to be tedious, time-consuming, and full of errors (Hyunsun & Yoon, 2018). Also, previous studies indicated that traditional record management failed to keep track of records and consumed space for storing the files, which, as a result, posed a security risk such as fire, rodents, and deterioration of records (Omran & Nadeem, 2019; Hyunsun & Yoon, 2018). Therefore, ICT applications are applied to tackle these challenges and transform the record management sector. The United Nations (2017) report argued that ICT applications have been recognized in many aspects of human life to improve accountability. Among the electronic records management systems that have gained popularity in recent years for managing records is the e-office system.

E-office system is among the ICT applications that are used to manage records. The e-office system is software for data processing, information sharing, and other communication activities (Naidu, 2019). The e-office system performs office activities related to managing records, which involve storing, tracking, and managing office documents from creation to archiving. According to Hyunsun and Yoon (2018), using the e-office system to manage records saves time, provides accuracy, keeps track of the documents, increases accountability, and improves organizational performance.

The history of record keeping in Tanzania dates back to the pre-colonial era (World Bank, 2017). However, URT (2017; 2018;2019) highlighted that the Tanzania Government has been experiencing records management challenges since independence. For instance, in 1997, the record management system had almost broken down. Other challenges that record management in the country faces, as reported by literature, include inadequate storage space, poor handling of records, and missing files (URT, 2018; 2019; 2017), to mention a few. Despite government initiatives to improve record management in the country, record management remains a problem (UNDP, 2018). According to Ondari-Okemwa (2017), record

management in the country is still facing challenges; as a result, there is poor management and preservation of public records, which slow down the availability of documents when needed and hinder development.

Despite the challenges that the record keeping sector faces, the government has been trying to employ various systems to improve the record management sector. The application of these record management systems aims to resolve record management challenges that most government registries were facing in the country, such as overcrowding registries, poor record handling, inadequate record storage, a poor tracking system, record loss, and challenges in retrieving records.

For instance, since the 1990s, the Tanzania Public Service has been implementing multiple restructuring measures on record keeping to enhance efficiency, effectiveness, and customer satisfaction. The first electronic record management system was the Human Capital Management Information System (HCMIS), installed in 1995 (International Monetary Fund, 2010). However, the system was not fully utilized because the critical data were not readily accessible to populate it. In the 2000's the government implemented the Public Service Reform Programme (PSRP) in two phases (PSRP I and PSRP II). The first phase lasted from 2003 to 2006, while the second phase began in 2007 and ended in 2012. Implementing these programs proved to be an effective performance management system, most notably the Integrated Human Resources and Payroll Management System (HCMIS). This system has improved HR management information and facilitated controlling and predicting payroll costs. The system has also significantly reduced the issue of ghost workers and reintroduced payroll integrity, resulting in substantial savings. The government also adopted e-government strategies and implemented e-government guidelines in 2017, influencing a more coordinated, citizen-driven government. Also, the government enacted e-Government Act No. 10 of 2019, which led to the establishment of the e-Government Authority (e-GA), whose main objective is to promote e-government initiatives in Tanzania's public service organizations. In 2015, the Electronic Record Management System (ERMS) was introduced in some public offices. The purpose of the introduction of ERMS was to automate registry services (e-GA,2018). The government, through President's Office Public Service Management

and Good Governance (POPSMGG), initiated the development of this system (starting with the e-office Management Module) that was piloted by President's Office Public Service Management (PO-PSM) with some of her co-institutions in December 2016 (e-GA, 2018). The pilot phase was essential for the system to be scaled up and used by all public institutions. This initiative has been made possible after all public institutions across the government successfully implemented the "Key Word and File Series System" or Modern paper-based registry system (e-GA, 2018).

Existing literature has so far pointed out different issues related to e-office in Tanzania. While this literature provides a valuable contribution to understanding the status of the e-office system, it leaves room for further important information on the effectiveness and performance of the e-office system in Tanzania. How effective the e-office system is not known. Therefore, this study examined the e-office system performance at the President's Office, Public Service Management, and Good Governance because this office serves many people and institutions compared to other offices. The office does serve more than 550,000 public servants. For this reason, the study was intended to assess the performance of the e-office system in managing files and documents.

### Usage of e-office Global Perspective

E-office is a new global phenomenon (Rahman, 2016). Although the extent of e-office usage varies from country to country, literature reports high use of e-office systems in developed countries compared to developing countries (Al-Sobhi, Kamal, Weerakkody, 2009). For instance, studies in countries like America, Europe, Korea, and Singapore indicated high usage of e-office systems (UN e-Government Survey, 2020). According to Clutch (2022), the use of e-office in developed countries is not only for government offices but also for large corporations and small and medium-sized enterprises. Clutch (2022) showed that over 70% of businesses in developed countries use e-office systems. The increased use of the e-office system in these developed countries is attributed to the availability of technological infrastructure that these countries have invested in, a high digital literacy rate, supportive policies, and guidelines that promote the adoption of technologies. According to UN e-Government Survey (2020), using e-offices in developed countries became necessary

due to the COVID-19 pandemic, where companies rely on remote system applications to continue to operate.

Apart from developed countries, developing countries are experiencing e-office expansion (Alshehri & Drew, 2010). According to the UN e-Government survey, African countries such as South Africa, Mauritius, and Seychelles, outpace other African countries. Although literature reports increasing utilization of Electronic Record Management Systems (ERMS) in African countries, according to the UN e-Government survey, most African countries have invested in adopting this e-government system to increase their online presence through developing websites for government offices, departments, ministries, and agencies. The literature further pointed out that the status of the adoption of e-offices is deficient (Bwalya, 2009; Ifinedo, 2014). The situation is attributed to the problems facing many sub-Saharan countries, such as inadequate funding, weak technological infrastructure, lack of resources, user attitudes, improper planning, lack of skills and training, resistance to change, and security issues, to mention a few (Bwalya, 2009; Ifinedo, 2014; Janssen, Wimmer, Moe, & Skiftenes, 2017; the United Republic of Tanzania, 2013).

Similarly, literature has indicated that ICT innovations such as the e-office system have been implemented in several East African countries. For instance, in Uganda, the government stressed using the e-office system due to errors that occur during documentation and data losses experienced in manual process methods or method of conducting organizational activities (Akinnubi, Etus, & Udunwa, 2014). Similarly, in Kenya, the government intends to provide e-government along the way, and adopting the e-office system is among them (the Republic of Kenya, Office of the President, 2004). Unfortunately, literature reports that the progression in the adaptation and use of e-office management systems in many developing countries remains very low (Akinnubi et al., 2014; E-Government Agency, 2020; Mohammed, Safura and Tetteh, Rebecca and Ahmed Azumah, 2018; Nengomasha, 2013; van Reijswoud & de Jager, 2009).

## Literature Review

### The Use of E-office Experience from Tanzania

Tanzania is one of the countries striving to adapt and implement e-government in all Public Institutions despite numerous challenges, such as technological infrastructure problems, inadequate personnel, and budgetary constraints. The government of Tanzania has put down numerous initiatives to ensure the implementation of e-government. Among the initiatives is that the government has data centers that host and operationalize various e-government systems (E-Government Agency, 2020). The government has built the national optic fiber backbone to network all ministries, departments, agencies, and regional administrations for reliable internet connections, established Information Communication Technology Units in all public offices, and successfully revamped the government portal. The current e-services operations include online job applications, online registrations, other government payments, obtaining permits, obtaining licenses, government announcements, forms, and various types of information from Ministries and Departments (URT, 2013), the adoption of e-office systems in some of the public service institutions.

Recognizing the need to reduce the possibility of Tanzania being excluded from the global knowledge-based society. The government harmonized independent Information Communication Technology-related initiatives, including the installation of a government-wide network and almost all ministries, departments, and agencies. The Government Network Management Centre has been built at the PO PSM. This center hosts the government's secure network hub for voice and data communications and spearheads the coordination of infrastructure, software, and security measures within the government. Also, the government has been conducting Information Communication Technology (ICT) sensitization and training for more than five thousand (5,000) public servants and other stakeholders (URT, 2013).

Furthermore, the government of Tanzania is implementing several initiatives to improve public services in terms of their structure, systems, functions, and processes (Lufunyo, 2013). Some of the initiatives include the implementation of the Public Service Reform Programme (PSRP) phase, which began in 2003-2006, followed by phase II which started in 2007-2012. Among other functions, these programs (PSRP

I and PSRP II) installed critical performance management systems, including an Integrated Human Resources and Payroll Management system (HCMIS), the only one in Sub-Saharan Africa. It is a computerized HR database containing the country's public servants' personal, professional, and career information. This is fully operational, has enhanced HR management information immeasurably, and has made it possible to control and predict payroll costs. This system has already paid for itself twice over from the savings made by reintroducing payroll integrity, including reducing the problem of ghost workers. All these initiatives focus on the provision of timely and quality services.

### **The Impact of Using the e-Office System**

The significance of the e-office system relies on its ability to automate administrative workflow, making the whole process of managing office paperwork more efficient. The e-office system allows the organization to digitize the use of paper work required to perform office tasks. The digitization of administrative workflow saves money for printing and storage. Also, using an e-office system allows employees to access important office information wherever they are, increasing performance efficiency. Another significant aspect of the e-office system is its ability to enable communication and collaboration among employees. The system allows employees to work together on a task, share feedback, and collaborate; this improves teamwork and boosts organizational productivity. Generally, the e-office system improves organizational performance and efficiency (Cluch, 2022). E-office system enables the organization to improve its services to customers. The literature argues that using an e-office system provides accessible communication among employees. In addition, Hidayanto, Karnida, and Moerita (2012) argued that the e-office system increases convenience because the office worker does not spend much time carrying around files and documents. This system allows employees to request or ask for a particular file or document.

According to European Union (2021), 93% of office transactions and business transaction are done electronically and use the Internet for communication. This report further indicated that the use of office system proves to provide efficiency in work. Dujmovc and Ćosić (2013) pointed out that electronic methods have

streamlined the workflow of many European offices. The contribution of these electronic systems reduces manual processes and frees up staff time for other tasks. For instance, communication through email or video conferencing, one of the features of the e-office system, has eliminated the need for physical meetings, thereby reducing the time employees would have spent moving around to attend them physically. Additionally, e-office has allowed for faster record-keeping and retrieval of documents, reducing time wasted on manual searches.

In addition, Mascarenha (2015) and El-Seou (2019) highlighted that in America, e-office systems enable offices to operate virtually, and physical barriers no longer limit business operations. The business can be conducted online, whereby staff can attend to office documents wherever they are. They can hold virtual meetings and conferences with participants from all over the world. Moreover, communication through emails, instant messaging, and video calls has become the norm, making it easier for businesses to correspond with customers and partners. Mascarenha (2015) and El-Seou (2019) reported that using e-office systems has also made document sharing easier; in the past, during traditional office management, businesses relied on physical documents, which were challenging to retrieve. With e-office systems, businesses can share, store, and access documents from anywhere, anytime, provided an internet connection.

Sithoe and Van der Waldt (2016) pointed out that using an e-office system also speeds up service delivery to customers. It allows the organization to serve customers, attend to more files or documents, and accurately track everything. The study by Satish (2019) pointed out that using the e-office system in the registry office and other offices responsible for file and document management facilitates serving many customers at once. In addition, the documents can be accurately tracked. Not only that e-office system also solves the file-tracking problems, as Manyambula (2009) and Yonazi (2010) found. Literature also pointed out that the traditional system is crowded with piles of files (Satish, 2019). The experience is quite different from the office equipped with an e-office system, whereby the office is sophisticated, and the office with piles of files are replaced with other office uses such as staff, server, and computers.



Furthermore, the e-office system provides lower operating costs, increased security and control over office documents and information transactions, and more (Hidayanto, Karnida, & Moerita, 2012). In addition, using the e-office decreases fraud risk, allows for a higher volume of office transactions to be completed in a shorter amount of time, allows remote transactions to replace the physical presence of workers in an office, and improves transaction speed and accuracy. Traditional office administration methods are time-consuming and expensive, so e-office was introduced to replace conventional systems worldwide. In addition, the e-office management system provides real-time, user-centered records that enable instant access to files and documents and can be used by various users simultaneously (Satish, 2019). This improves organization performance by improving service quality and organization productivity.

Generally, e-office provide innovative services that benefit offices and staff compared to traditional office systems. It has become imperative to understand the effectiveness of the performance of e-office systems in Tanzania, focusing on the President's office dedicated to serving all government employees. The study intends to determine whether adopting the e-office impacts office operations.

#### Challenges facing the use of e-office

The challenges facing e-office system usage vary from country to country, for instance, in developed countries with a massive adoption rate of e-office systems (Deloitte, 2022). Literature points to technology dependency as among the challenges facing the adoption of e-office systems (Rasool, 2022). This is because the utilization of these systems requires heavy investments in technology, including software, hardware, Internet connectivity, and related. The literature stressed further that when the business faces any technological disruption or system challenges, they affect the business productivity and cause inconvenience to customers. Although developed countries have reliable technological infrastructure (Deloitte, 2022), they are not immune from time-to-time system downtime and other technical glitches.

Keshta and Odeh (2021) reported that security and privacy concerns are among the challenges facing using e-office systems in developed countries. The e-

office system involves creating, storing, sharing, transferring, and processing sensitive information. Data breaches, hacking attempts, or inadequate security measures can expose confidential data and compromise privacy. Developed countries, prime targets for cyberattacks, must implement robust cybersecurity measures to mitigate these risks effectively. For instance, in 2019, around 5,000 data leaked cases exposed around 7.9 billion organizations' confidential data (Kerspersky, 2020). Security and privacy concerns are severe problems that lead to organizational loss.

While e-office offer numerous advantages in developed countries, Rasool (2022) reported that using e-office systems causes employees fatigue and information overload. This is caused by the fact that employees are constantly connected to office demands and responsibilities. The literature highlighted that when employees are constantly connected with the e-office system, they may feel overwhelmed by the increase in emails, messages, and notifications, impacting their well-being and productivity. When the technological device connects the team member with work life all the time, it affects employee productivity negatively by causing stress, information overload, and overwhelming employees.

Regarding developing countries, the challenges do not vary; this is because many African countries share the same prevalent factors. According to Rahman (2008), despite massive demand from the community, particularly urban offices, Bangladesh's electronic office (e-office) is still in its early stages due to several constraints, including the lack of a backbone network connecting the entire country, the inadequacy of reliable and secure information infrastructure, particularly telecommunication infrastructure, and slow ICT penetration in the public sector. This hinders the utilization of the e-office system in India.

In addition, Ibrahim (2017) investigated the lack of technological infrastructure, high Information Communication Technology equipment costs, and regulatory and legal issues as among the reasons that impede the usage of e-office in developing countries. In the same vein, Awuondo (2014) pointed out that public offices use old buildings not designed to accommodate new technological innovations. Al-Sobhi and Weerakkody (2011) concluded that some public offices lack

power supplies and other technical installations. As a result, it becomes impossible to accommodate technological changes and the usage of e-office systems in developing countries.

Scholars Al-Sobhi and Weerakkody (2011); Pontoh (2017) highlighted that individual readiness is significant for practical technology usage in developing countries. Therefore, the non-readiness of public offices and other stakeholders (acceptability) to use e-office systems poses a severe threat to the practical usage of the system. Literature points out that employees' resistance to changes is attributed to a lack of awareness of the advantages of new technologies, a lack of trained personnel in critical institutions, and a tendency to be content with the existing structures. As a result, these factors hinder the use of e-office in developing countries. The inefficient Information Communication Technology infrastructure and traditional organizational culture impede the adoption of e-office.

The reviewed literature reported the challenges of the e-office system. Previous studies suggested that the identified challenges vary from country to country. For instance, Rasool (2022), technology dependency, security, and privacy concerns (Keshta & Odeh, 2021), and employees' fatigue and information overload (Rasool, 2022) are among the challenges that face usage of e-office systems in developed countries. Rasool (2022) highlighted that the challenges do not only affect the organization but also impact employees' well-being and productivity. Moreover, in developing countries, the challenges that affect e-office include the lack of a backbone network, the inadequacy of reliable and secure information infrastructure, particularly telecommunication infrastructure, high Information Communication Technology equipment costs, regulatory and legal issues (Rahman, 2008) user attitudes, improper planning, a lack of skills and training, resistance to change, and security issues, to mention a few (Bwalya, 2009; Ifinedo, 2014; Janssen, Wimmer, Moe, & Skiftenes, 2017). In that case, the challenges faced using the e-office system in public services institutions, including PO PSMGG, is unknown. Therefore, this study aimed to find out.

## METHOD

The study was conducted at the President's office, public service management, and good governance to assess the effectiveness of the e-office system in Tanzania's Public Institutions. The sampling frame consisted of 300 personnel from the President's office, public service management, and good governance. This study used Yamane (1967) to calculate the appropriate sample size for the study, whereby 152 participants were given questionnaires, and ten administrators participated in the interview. The rate of response was 86.8 per cent. The Statistical Package analyzed quantitative data for Social Sciences for Windows version 25 (IBM SPSS). Also, the results were analyzed using descriptive analysis using bar charts, pie charts, and frequency charts. The study also applied content analysis for analyzing qualitative data as proposed by various scholars such as (Lacey & Luff, 2007; Miles et al., 2013). The content analysis was used to analyze documented information in texts, interviews, conversations etc. In this regard, the researcher recorded all interview notes well to be easily sorted, organized, and analyzed.

## RESULT AND DISCUSSION

The respondents' demographic characteristics revealed that, 51%, of the respondents who participated in the study were male, while 49% were female. All of the respondents had formal education backgrounds ranging from diploma level education to Master's education. Regarding working experience, the results revealed that 48% of the respondents had seven years or more of working experience, as illustrated in Table 1.

**Table 1.**  
**Demographic characteristics of respondents**

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
<b>Sex</b>		
Male	67	50.76
Female	65	49.24
<b>Highest education qualifications</b>		
Diploma	17	12.88
Bachelor's Degree	56	42.42
Master's Degree	59	44.70
<b>Experiences in position</b>		
1 to 2 Year	28	21.21
3 to 4 Years	20	15.15

5 to 6 Years	21	15.91
Above 7Years	63	47.73

Source: (Field Data, 2022)

The demographic characteristics of the participants who participated in the interview showed that three-quarters of the key informants, 60% were male, while one-quarter, 40%, were female. Furthermore, it was discovered that the majority of participants, 90% had a Master's Degree, and 10% had a PhD. Concerning the age of interview participants, the findings revealed that most of the participants, 80% were between the ages of 36 and 45, while the rest of the respondents, 20%, were over the age of 46. (see Table 2).

### The Frequency of Using E-office System

The researcher wanted to determine how frequently the e-office system was used within PO PSMGG. How frequently the users used the e-office system was crucial in deciding how much time the users spent on the e-office system. The information obtained helps track how much time the user of the e-office system spends on the system. Understanding this frequency usage is crucial since it provides the basic information that is valuable in understanding the user experience and, as a result, evaluates the system performance and improve the user experience.

The findings revealed that the majority of respondents, 58%, said they use e-office daily. In addition, 31% said they used e-office several times per week. Furthermore, 11% indicated that they did so several times per month. Over half of those who responded to the survey said they used e-office daily. The results suggest that the e-office system is frequently used in the surveyed area.

The findings imply that the e-office system is frequently used and that the employees in the surveyed areas used the system to perform various tasks, including creating, storing, organizing, and retrieving documents. The situation is attributed by the fact that handling the office documents is currently done electronically. The registry personnel upload the majority of office documents into the system, not otherwise. When the office received printed documents, the registry staff scanned physical documents to be held electronically. These findings align with the study by e-GA (2018), who reported that the adoption of e-office is gaining momentum and

that public offices in the country are adopting and implementing e-office systems. In contrast to the previous studies done by Bwalya (2009), Ifinedo (2014) who pointed out that the status of the adoption of e-office is deficient.

**Table 2.**  
**Extent of using the e-office system**

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
<b>The extent of using an e-office system</b>		
Everyday	77	58.33
Several times a week	41	31.06
Several times a month	14	10.61
<b>Performing all office activities through the system</b>		
No	18	13.64
Yes	114	86.36

Source: (Field Data, 2022)

The results of this study generally indicated that employees were using an e-office system to perform office work. The findings of the study contradict those of Komba (2014), Ndenje-Sichwale (2010), and Yonazi (2010), who found a low adoption of e-office technologies in the country. The current high usage of e-office systems revealed in this study is attributed to government initiatives and the e-government agencies that support adopting e-office systems in public institutions. Also, using the e-office system is attributed to the availability of reliable internet infrastructure including the ICT broadband backbone fiber optics connected to government offices. The internet infrastructure provides a strong foundation for adopting and implementing the e-office system in public offices. Furthermore, the government has trained personnel to increase efficiency and productivity (E-Government Agency, 2020). Therefore, these government initiatives explain the increased usage of e-office systems in the surveyed offices.

### **The effectiveness of using the e-office system at PO PSMGG**

The study's second objective was to assess the effectiveness of using an e-office systems at PO PSMGG. Understanding the effects of the system usage was crucial since it provided valuable information for evaluating the system's effectiveness. The information on the effectiveness of the use of the system assists in decision-making regarding the use of the system, pointing to the areas that need improvement. As a result, the system will continue to perform accordingly.

The findings revealed that most respondents 89% agreed that the e-office system enables employees to access records easily. The results imply that the respondents find that the e-office system simplifies the whole process of record accessibility. Compared to the traditional records management system, office files were stored in boxes, shelves, and cabinets. Accessing the documents was challenging and time-consuming, especially when the records were kept in various locations and there was a poor record indexing system. The findings of this study align with the survey done by Mascarenha (2015) and El-Seou (2019), who highlighted that the e-office system provides easy access to files wherever needed. With a single click on the e-office system, features, for instance, advanced search, indexing, and access, allow document accessibility and retrieval. In addition, the e-office system enables staff to access records wherever they are. They don't need to be physically available at the location where the document is stored to access the document.

The study results indicated that the majority of respondents, 90%, agreed that the e-office system improves customer service. The finding implies that e-office systems enhance the provision of customer services. This is attributed to the fact that the e-office system enables customer records to be accessible all the time, and when needed, the staff can easily access the record and provide the information required. The method further assigns, tracks, and ensures that different customer requests and files are handled on time. As a result, it improves customer care services. The results of this study align with the study done by Sithoe and Van der Waldt (2016), who reported that the use of e-office system provides faster responses, especially when the customer's request information regarding the progress of their submitted letters or files. With a single click, one can gain insight into the status of the file and documents and respond to the customer.

According to the findings, the results revealed that most of the respondents, 84% indicated that the e-office system speeds up service delivery. This is because an e-office system eliminates the manual handling of office documents, reduces the processing time, and minimizes errors resulting from the physical transportation of the documents. This is made more accessible because all the official documents are stored electronically, making it easier to search, retrieve, and track records. The

availability of these features speeds up service delivery. The findings of this study align with previous studies done with Hidayanto, Karnida, and Moerita (2012) and Clutch (2022), which highlighted that the use of an e-office system speed up service delivery.

The findings also revealed that the majority of respondents, 82% agreed that the e-office improves working conditions. According to the Controller Auditor General report (2017;2018;2019) highlighted that due to the use of traditional record-keeping, most public offices registry is cluttered with piles of files stored in boxes, shelves, and cabinets, posing challenges for the registry personnel to search, retrieve documents in that environment. With the e-office system, the working conditions have improved, and most of the official documents are stored electronically. Making the place used to store physical documents empty and can be used for other office activities, the use of the e-office system further enables registry staff to be more comfortable working while sitting compared to previously, where they used to move around carrying files or searching for files manually, which was time-consuming and exhausting. This study's findings align with the survey done by Satish (2019), which also pointed out that the e-office system improved the working conditions, making the whole record handling process sophisticated and appealing.

Generally, the overall results showed that most respondents (92%) agreed that an e-office system positively impacts the organization. An e-office system enables easy access to records, simplifies retrieval of documents, reduces the need for huge storage facilities, and offers quick and easy ways of handling office documents. However, it is essential to note that not all office documents and files are managed using the e-office system. Some are still held traditionally due to secrecy reasons. Moreover, the positive impact of using the e-office system in public institutions increases customer satisfaction, accountability, and productivity.

**Table 3.**  
**Impact of e-office system**

Variable	SD	D	N	A	SA	Mean ±SD
the system enables access records easily	1(0.76)	0(0.00)	12(9.09)	35(26.52)	84(63.64)	3.48±0.73



the system improves services to customers	0(0.00)	2(1.52)	10(7.58)	52(39.39)	68(51.52)	3.59±0.70
the system speeds up service delivery	2(1.52)	1(0.76)	16(12.12)	42(31.82)	71(53.79)	3.64±0.84
the system improved the working condition	1(0.76)	3(2.27)	18(13.64)	56(42.42)	54(40.91)	3.80±0.82
the system reduces record fraud risk	2(1.52)	7(5.30)	21(15.91)	54(40.91)	48(36.36)	3.95±0.94
The system enables to perform higher	2(1.52)	4(3.03)	11(8.33)	50(37.88)	65(49.24)	3.70±0.86
the system increases accuracy	0(0.00)	4(3.03)	15(11.36)	54(40.91)	59(44.70)	3.73±0.78
the e-office system increases organizational	2(1.52)	4(3.03)	14(10.61)	44(33.33)	68(51.52)	3.70±0.89
the e-office system is more efficient	2(1.52)	2(1.52)	7(5.30)	40(30.30)	81(61.36)	3.52±0.80
the e-office system increases accountability	1(0.76)	1(0.76)	8(6.06)	39(29.55)	83(62.88)	3.47±0.71
the e-office system saves time	1(0.76)	1(0.76)	7(5.30)	42(31.82)	81(61.36)	3.48±0.70
<b>The overall impact of the e-office system</b>	0(0.00)	1(0.76)	9(6.82)	57(43.18)	65(49.24)	3.59±0.65

Source: (Field Data, 2022)

In general, the results showed that the impact of the e-office system is crucial, as it saves time, increases accountability, and allows staff to track office documents easily, knowing exactly where the document is and who is handling it. If there are notes, assignments, and directions concerning the documents, the system offers those features. Furthermore, using an e-office system increases accuracy in handling office activities and reduces the risk of record fraud because letters are scanned and registered for the required processes, including previewing. The impact of the e-office system is in relation to those of Satish (2019); Manyambula (2009); Yonazi (2010); Hidayanto, Karnida, and Moerita (2012), who found that e-office systems have a positive impact on offices; that is, easy searching and retrieval, improved service delivery, improved working conditions, saving time, and reduced office running costs.

### The challenges faced in using the e-office system at PO PSMGG

The study also examined the challenges faced using the e-office system at PO PSMGG. Understanding the challenges of using an e-an office system was crucial

since it provided valuable information for evaluating its effectiveness. The challenges faced when using an e-office system provide helpful information for understanding potential problems associated with the e-office system and its limitations. As a result, public institutions can proactively address problem and find the solutions before it affects the overall performance and efficiency of the e-office system.

The findings of this study, as illustrated in Table 4, portrayed that most respondents disagreed with the statement that indicated challenges they face when using an e-office system. For instance, the statement that lack of adequate ICT infrastructure affects the POPSMSGG to use the e-office system; most respondents, 71%, disagreed. The results imply that the lack of ICT infrastructure is not a challenge employees face when using the e-office system at POPSMSGG. The situation is attributed to public institutions being equipped with ICT infrastructure. This was made possible by various initiatives taken by the government of Tanzania. For example, the Universal Communication Service Access Fund, which is established under the Universal Communications Service Access Act, Cap 422, fund various projects that involve providing ICT infrastructure to public institutions in the country (Universal Communication Service Access Fund, 2022). Also, according to the National ICT broadband backbone project ensures reliable internet connectivity for public institution.

Furthermore, the government encourages partnerships with other private organizations that intend to invest in the country's ICT infrastructure (National ICT Policy, 2003). As a result, these initiatives lead to the availability of ICT infrastructure in public organizations. These results are contrary to the study done by Mallya and Kibona (2019), which entails that the lack of adequate ICT infrastructure affects the use of e-office systems.

Also, the study revealed that most of the respondents, 59% disagreed with the statement that the most significant barrier to using the e-office system is a lack of willingness to use the system. The findings imply that willingness to use the system is not a barrier, meaning that the user of the e-office system has a positive attitude towards the usage of the e-office system. According to Anam (2023), when users of the system are willing to use it, they become motivated and open to adopting and

using it. Anam (2023) further explained that the willingness to use e-office systems could be influenced by the user's perception that the system is easy to use and beneficial. Compared with traditional office record management systems, e-office systems are easy to use, for instance, the process of retrieving the previous record. The findings are contrary to the study done by Al -Sobhi and Weerakkody (2011); Pontoh (2017), who highlighted that individual non-readiness is significant for practical technology usage. Since readiness influences intention and usage of technology in general. Therefore, the readiness of public institution personnel to use e-office systems influences high usage of the system.

The findings revealed that 40% of the respondents disagreed with the statement that there is a lack of technical staff to install and troubleshoot the e-office system. The findings imply that the respondent did not experience a lack of technical staff challenges. This means that there were technical personnels who managed the e- office system in the designated areas. The availability of technical personnel who manage the e-office system is attributed to various factors, including the government investment in education and training programs on ICT programs through higher learning institutions and vocational training institutes that offer ICT and the related skills. Furthermore, the government has also been conducting Information Communication Technology sensitization and training for more than five thousand (5,000) public servants and other stakeholders (URT, 2013).

Also, the study results indicated that most of the respondents, 77% disagreed with the statement that poor internet connectivity hinders the usage of the e-office. Implying that there is no poor internet connectivity and that the internet connectivity is working effectively to support the use of the e-office systems. The findings revealed that reliable internet service fosters the use of the e-office system. The availability of internet services in the surveyed area is because the offices are connected to the national ICT broadband backbone, which aims to provide reliable internet connectivity to public offices, which, as a result, assures reliable internet connectivity to public institutions, including surveyed areas.

The finding illustrated in Table 4.5 revealed that 59% of the respondents disagreed that a lack of organizational motivation to use the system hinders its use.

The results imply that the organization in the surveyed areas encourages and supports the e-office system. These results signify that there is strong support from the management regarding using the e-office system. The findings align with previous studies by Venkatesh and Davis (2000), who portrayed that organization and motivation play a crucial role in ensuring system usage in offices. Venkatesh and Davis further elaborated that administrative support, such as training and resources, influences the use of the system.

Generally, the overall study results showed that the majority of respondents disagreed with the statement indicating challenges in using the e-office in the organization, which were lack of ICT infrastructure, no willingness to use the system, lack of technical personnel, poor internet connectivity, and lack of organization motivation to use the system that hindered its use.

**Table 4.**  
**Perceived challenges faced in using the e-office system at PO PSMGG**

<b>Variable</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>	<b>Mean ±SD</b>
Lack of adequate ICT infrastructure	27(20.45)	40(30.30)	21(15.91)	11(8.33)	33(25.00)	2.87±1.48
The absence of willingness to use the system	26(19.70)	25(18.94)	30(22.73)	23(17.42)	28(21.21)	3.02±1.42
Lack of technical personnel	26(19.70)	28(21.21)	32(24.24)	18(13.64)	28(21.21)	2.95±1.41
Complications of the system	14(10.61)	17(12.88)	34(25.76)	35(26.52)	32(24.24)	3.41±1.28
Poor internet connectivity	36(27.27)	27(20.45)	31(23.48)	18(13.64)	20(15.15)	2.69±1.40
Lack of organizational motivation	12(9.09)	33(25.00)	33(25.00)	24(18.18)	30(22.73)	3.20±1.29

*Source: (Field Data, 2022)*

This study's results align with the survey by Rasool (2022), who reported that technical glitches are inevitable when organizations rely on technology. As a result, these technological disruptions or system challenges affect business productivity and cause inconvenience to customers. Therefore, there is a need for the organization to

anticipate and invest in technical facilities to handle the possible technological disruption that may occur.

The study findings revealed that, in terms of security, the e-office system is set up to permit staff usage not only within their designated office but also in any public office. The implementation of stringent security measures is crucial, given the rising global cybersecurity threats targeting public offices for data breaches and ransom-related hacking attempts. Inadequate security protocols could potentially expose sensitive data and compromise organizational privacy.

Moreover, the study highlighted that 20% of the key informants identified a lack of concern and low prioritization among public servants as challenges hindering the adoption of the e-office system. Respondents noted a general apathy among public servants towards transitioning to the e-office, opting to stick with traditional paper-based office management practices despite repeated emphasis on the necessity for electronic filing. This persistence in physical document handling poses a significant obstacle.

These findings align with a 2013 survey by Yılmaz and Kılıçoğlu, which emphasized that not all staff members readily embrace new systems within organizations. Some individuals may exhibit reluctance towards adopting and utilizing an e-office system due to concerns about its impact on their roles and job security.

## CONCLUSION

In summary, the findings of this study indicate a notable correlation between e-office usage and the various challenges encountered with its implementation, including issues like unreliable power supply. To ensure the effective utilization of the e-office system, it is crucial for organizations to address these challenges proactively.

Firstly, providing a reliable power supply is paramount. Uninterrupted access to electricity is essential for the smooth functioning of the e-office system, preventing disruptions and data loss.

Secondly, close monitoring and continuous reminders for employees regarding the guidelines for e-office usage are vital. Regular reminders and monitoring can help

reinforce best practices, encourage proper utilization of the system, and reduce errors or misuse.

Lastly, frequent training sessions should be conducted to educate employees on the functionalities and benefits of the e-office system. Ongoing training not only enhances employees' proficiency in using the system but also fosters a culture of continuous learning and adaptation within the organization.

In conclusion, by addressing these aspects—ensuring a reliable power supply, providing consistent reminders and monitoring, and offering regular training—organizations can maximize the benefits of the e-office system and mitigate the challenges associated with its usage, ultimately promoting efficiency and productivity in the workplace.

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