

# **ESARBICA JOURNAL**

**JOURNAL OF THE EASTERN  
AND SOUTHERN AFRICA  
REGIONAL BRANCH OF THE  
INTERNATIONAL COUNCIL ON  
ARCHIVES**

**Volume 41**

**2022**

ISSN 2220-6442 (Print), ISSN 2220-6450 (Online)

<https://dx.doi.org/10.4314/esarjo.v41i1.5>

# E-records guidance tools in records sharing at Tanzania Public Service College

**Chiku M Chang'a**

Tanzania Public Service College  
chikuchanga87@gmail.com

**Kardo J Mwilongo**

Mzumbe University, Tanzania  
kardo.mwilongo@mu.ac.tz

Received: 30 April 2021

Revised: 31 March 2022

Accepted: 30 June 2022

## Abstract

This study aimed to assess the e-records guidance tools for record sharing at the Tanzania Public Service College in Tanzania. A credible methodology is presented, followed by a discussion about the phenomena underpinning the study. The study engaged a quantitative research design to collect, process and analyse data. The quantitative research design was used to collect basic descriptive statistical data on demographic characteristics, awareness of e-records guidance tools, usefulness of e-records guidance tools in sharing records and the factors affecting the application of e-records guidance tools in sharing e-records. The findings established that the majority (>50%) of the respondents were well informed of e-records guidance tools and agreed on the fact that guidance tools' user-friendliness, trace procedures and user awareness positively affected access to and use of e-records guidance tools. However, the institutional developed procedures and regulations were applied to a high degree in the handling and sharing of e-records; although attention has to be critically recommended to the Tanzania National Archives on developing comprehensive e-records guidance tools to ensure effective e-records sharing practices.

**Keywords:** electronic records, e-office systems, e-records guidance tools, e-records sharing, e-records management

## Introduction

In Tanzania, electronic records or “e-records” are shared through various platforms, including email, social media networks and significantly on electronic office or “e-office” platforms (Kamatula, 2018). Among the areas that use e-office to share e-records are financial and educational institutions, those in the health sector and government agencies (Bank of Tanzania, 2018; Kamatula, 2018). Despite the benefits of e-records, applying guidance tools to sharing e-records is problematic, due to issues surrounding procedures uptake, privacy, and security issues (Nehemiah, 2014; Issa & Wamukoya, 2018). These areas are explored more fully in this case study of the use of e-records guidance tools for e-office systems at the Tanzania Public Service College in Dar es Salaam. Over the last few decades, advanced and rapidly changing technologies have been applied to all facets of human life, including in office, industry, health, and other sectors (Pfano & Beharry, 2016). Within office technology, there has been a paradigm shift from paper-based records sharing to modern settings in which

e-records are smoothly and efficiently shared, enabling quick decision-making. E-office systems adopted the innovation brought about by the advanced technology in e-records management and sharing (Pan, 2017). E-office refers to a computerised system that is aimed at sharing information; improving organisations' functions and records management; promoting the desirable values of transparency, efficiency, and accountability; and providing a modernised working environment (India National Informatics Centre (NIC), 2014). E-office was a term coined to describe the increasing use of computer-based information technology for office work, especially in the 1980s. It was a popular marketing buzzword during that era but is no longer widely used since most offices are electronic in nature (Fenner, 1996). More recent function-specific e-office systems have provided successful proprietary platforms to organisations and institutions all over the world. For instance, in the United States of America (USA), the health sector has advanced in sharing records through e-office platforms (American Hospital Association (AHA), 2018). However, this trend was not successfully established in developing regions due to challenges such as financial crises, technological expertise, inadequate infrastructures and a lack of skilled human capital (Pan, 2017; Brock, David & Miller, 2018; Mukred, Yusof, Alotaibi, Mokhtar & Fauzi, 2019). E-records sharing in both public and private organisations has to be guided by tools such as policies, procedures, principles, standards and regulations to maintain content, structure, context and security (Bello Faruk, Oloyode & Popoola, 2016; Pfano & Beharry, 2016; Pan, 2017).

## **Background to e-records guidance tools for sharing records**

Advances in information technology have contributed to the paradigm shift in records sharing practices (Asogwa, 2012). The management and sharing of e-records in developed countries, particularly North America and Europe, started gaining serious attention and recognition around the 1980s, when certain sectors generated e-records and deployed these technologies (Moloi & Mutula, 2007). The widespread introduction of information and communication technologies (ICTs) into records and archives management made e-records keeping and sharing practices in many developing countries different from traditional paper approaches (International Records Management Trust (IRMT), 2009). In sub-Saharan Africa, e-records sharing, and management is a challenging field for most records professionals and archivists. It has distorted traditional lifecycle approaches to records sharing and highlighted some limitations that records managers have to address if they are to continue making information access significant to the public (Asogwa, 2012).

The application of e-records guidance tools to sharing records is more prominent in developed countries, mostly in the United States of America (USA) and United Kingdom (UK) (NIC, 2014). For instance, the application of e-office and e-records guidance tools for sharing e-records has been remarkable within the research, education, agriculture and health sectors of developed regions (Mannan, Srirahayu, Anna & Harisanty, 2018; National Archives and Records Administration, 2018). In Africa, e-records were introduced to government sectors and public institutions in the 20<sup>th</sup> century with a support from the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Danish International Development Agency (DANIDA) (Popela and Dagada, 2016). Countries that have adapted to the use of e-office platforms and related e-records guidance tools for sharing e-records in Africa include South Africa, Nigeria and Ghana (Bigirimana, Jagero & Chizema, 2015). On the other hand, slower initiatives towards shifting from traditional paper-based sharing to modern e-office and e-government initiatives in African countries, including Kenya and other sub-Sahara African countries, have been noted in many other institutions and ministries (Odekunle, Odekunle & Srinivasan, 2017).

A broad adoption of e-office platforms in the sub-Saharan Africa region demands high effort to deal with common problems that set back deliberate initiatives. These include a low level of development in technology, insufficient ICT expertise, infrastructures, resources such as a lack of monetary incentives and differing priorities in an unsupportive environment (Odekunle et al., 2017). In this regard, Ibrahim (2016) states that in Uganda, the sharing of public e-records through a given platform (a practice guided by established legal instruments) has been a challenging task, as the working environment has not always been conducive to it. Such an environment can easily lead to these records being revised, deleted, or otherwise changed and manipulated, thereby challenging their authority, robustness and credibility over time.

## **Statement of the problem**

The Tanzania Public Service College (TPSC) collaborates with other training institutions, the central government and individual experts within and outside the country to deploy the latest technology to enable e-records sharing within institutions and among its stakeholders (TPSC, 2017). However, despite a concerted effort, initiatives in the application of e-office platforms and its working environment are only superficially conducive to efficiency and effectiveness in sharing e-records. An effective, organised, and motivational electronic working environment improves efficiency toward achieving institutional objectives. Guidance tools, which include relevant policy, standards, regulations, legislation, and principles, are a potential framework for delivering robust e-records sharing practices. The TPSC is currently not well contented with such a working environment or with the tools for sharing electronic records through an e-office platform. In view of this, it is interesting and motivating that since 2016, a platform has been in use at the TPSC to share e-records. In Tanzania, studies have been conducted on e-records preservation (Ahadi, 2010), electronic recordkeeping (Madulu, 2016) and e-records management (Issa & Wamukoya, 2018), but little has been done on the importance of guidance tools for sharing electronic records through a given platform. Therefore, this study aimed to assess the e-records guidance tools for record sharing at the TPSC.

## **Research purpose and objectives**

purpose of this study was to assess e-records guidance tools in sharing records through e-office platform at the TPSC in Tanzania. Specifically, the study examined the awareness of e-records guidance tools, usefulness of e-records guidance tools and the factors affecting the use of e-records guidance tools in sharing e-records through the platform.

## **Literature review**

### ***E-records sharing***

Electronic records sharing describes the process whereby e-records are communicated through a computerised platform within an organisation or between different organisations and other external agencies, such as the government and its organisational stakeholders. Electronic records sharing enables the communicating entities to have an effective decision-making process and organisational performance, as evidenced in an e-office health system study (Bhartiyaa, Mehrotraa and Girdhar, 2016). Related studies and reports by the United Nations (UN) (2015), the Philippines Ministry of Education, Culture and Sport (MECS)

(2016) and Madulu (2016) identified various ways of sharing e-records. Among the most prominent are those that provide for records transactions within and between organisations. This is also common with the TPSC where most of the e-records are shared within and between the institutions. The National Archives and Records Administration (NARA) (2018) advises that sharing e-records should be focused on developing a team inclusive of records professionals, decision makers and IT experts in order to efficiently operate with the records system. In addition, Aggarwal, Singh and Bohra (2014) underline the need for a professional relationship between records officers and IT personnel. With this mutual cooperation, secure e-records sharing supports effective e-records management. In this regard, access rights to sensitive records through technical support are maintained in a similar way.

Records staff also have to establish, manage and implement guidelines for effective sharing of e-records among stakeholders. In implementing e-records sharing, professional records staff should empower users to take correct, quick decisions by providing the necessary information at their fingertips (Demirtela & Bayramb, 2014; Maulid, 2015; Newa & Mwantimwa, 2019). In addition, records staff should ensure that all transactions are captured in accordance with legal requirements and that they can never be tampered with, and that unproductive or unintended e-file movements are eliminated (Pendergrass & Crawford, 2018). The records staff have a role to play in monitoring the mechanism available for tracking e-file movement and can provide regular reminders to users of pending e-files, while ensuring authenticity of e-records with the use of digital signatures (Aggarwal et al., 2014; UN, 2015; Madulu, 2016; MECS, 2016).

Electronic records staff and IT personnel are required to carefully plan and design a system that agrees on the essential characteristics of all e-records shared both within and outside the organisation (Madulu, 2016). The essential characteristics of e-records that must be maintained include authentic content, verifiable context, consistent structure and interoperability (Sutirman & Sasmita 2017; NARA, 2018). In this regard, a collaborative team of e-records staff and IT personnel is thus needed to design a sharing workflow that supports interoperability while maintaining these records characteristics (Savolainen, 2017). In the context of interoperability, key security issues that consider with whom to share, how much information is shared and how to share so that no unauthorised access is given to any data must be addressed (Bhartiyaa et al., 2016).

### ***E-office platforms***

The emergence of electronic records raised fundamental concerns within state governments, commercial organisations, and other institutions. It transformed the way records are created, captured, shared, and disseminated. Paper records services and information management were streamlined into e-government services and e-records management systems that operate through a computerised system. The e-office system emerged to manage existing platforms used to create documents, send and receive letters and distribute memos, among many other functions (Mannan et al., 2018). In the study by Sutirman and Sasmita (2017) on implementation of an electronic records management system in a Yogyakarta city government office in Indonesia it was revealed that the use of e-office was extended to both private and public institutions in sharing electronic records. It is obvious that the use of e-office has been imperative in private organisations, governments, and institutions as it can provide for improved records integrity, high availability, security, confidentiality, adherence to e-records policy and auditability. Sharing e-records over any e-office platform makes life easier for users in many ways, including good customer service, improved employee

productivity, saving of time and labour, reduced records duplication, provision of efficient use of storage space, and minimised costs, file losses and efforts spent on recovery. In addition, Shonhe and Grand (2019) opine that the use of an e-office platform resulted in more effective management of resources, minimised litigation risks, improved accountability, transparency, and decision making, and provided a foundation for legal requirements compliance.

Electronic records and systems such as e-office platforms through which the information is shared have also contributed to modernising organisational functions related to records management (Ibrahim, 2016; Tsabedze, 2018). The platform provides an effective mechanism that monitors the records professionals' and users' performance, and indicates pending, in use and cleared e-record files within a given workflow. The monitoring system increases the accountability and responsibility of records professionals, decision makers and user employees at all levels to bring positive change to the administrative system (Aggarwal et al., 2014; Warren, Clarke, Arora & Darzi, 2019). Records captured from outside systems and/or print-based records received are scanned, saved in storage media and uploaded to an e-office platform or networked server for further use (see figure 1). Electronic records captured through email or other formal communications media are integrated into the e-office platform for business processes. For instance, within the Indian governmental context, e-records metadata are prepared at the Central Registry Unit (CRU) and then shared with other units to support decision making (Aggarwal et al., 2014; Ibrahim, 2016; Kamatula & Kemoni, 2018). A well-designed system for sharing e-records allows knowledgeable employees to find and share records more easily in the shortest time possible (Adam, 2008).

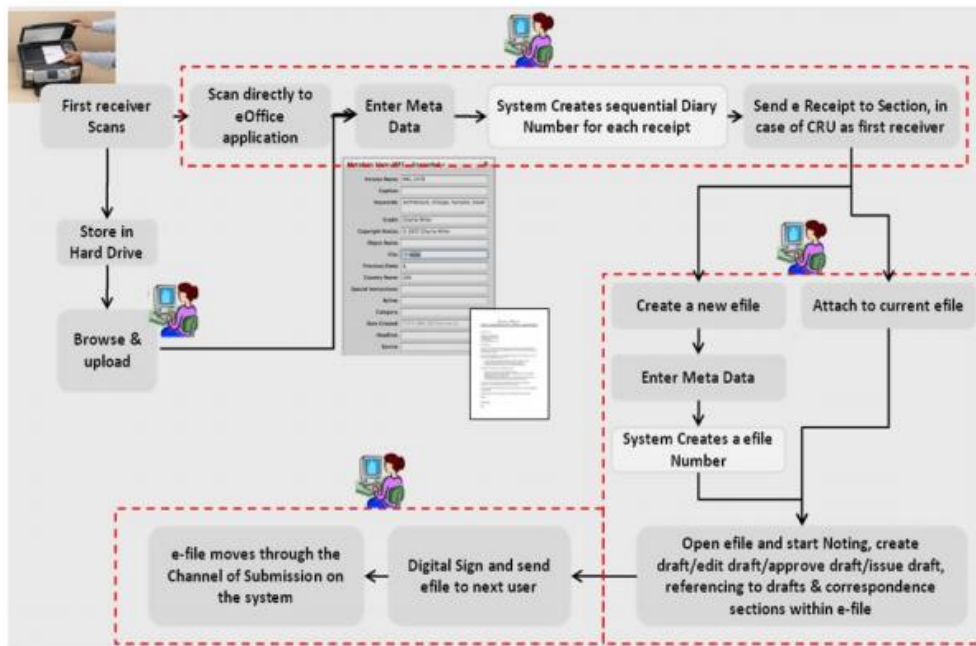


Figure 1: E-record file work flow in an e-office platform (Aggarwal et al., 2014)

### **E-records guidance tools**

The use of e-records policy, procedures, legislation, standards, and regulations facilitates effective records management and good practices in an organisation (Brock et al., 2018). To this effect, Mukred et al. (2019) insist on the importance of e-records policy and legislation for systematic, effective and efficient sharing of e-records. It is crucial for an organisation to provide an overview that addresses all aspects of e-records sharing in the form of a policy. Electronic records sharing systems or platforms should be operated according to the relevant

policy, standards, laws and regulations (Bello et al., 2016). The absence of e-records sharing policy or legislation can render organisations unable to retain or delete information within records sharing processes (Mukred et al., 2019). For instance, the University of KwaZulu-Natal, Africa University in Mutare – Zimbabwe, Duke University and Loughborough University lacked e-records sharing policies and this had an impact on the security, processing, privacy, and use of e-records among decision makers and other institutional stakeholders (Bigirimana et al., 2015).

The e-records sharing policy refers to a formal statement or document that describes the procedures and guidelines for e-records transaction in order to achieve and maintain its authenticity, reliability, integrity and usability (MECS, 2016). Those guidelines include, but are not limited to, the protection of e-records against unintentional or unauthorised access, modification, deletion, or disclosure; protection against corruption or loss due to technical failure or disaster; and ensuring that e-records remain accessible and readable for the duration of their retention period (State of Florida, 2010; Kamatula & Kemoni, 2018; Newa & Mwantimwa, 2019). The e-records sharing policy applies to e-records of all kinds of government, an organisation or institution, including, but not limited to email, computer application processed documents, databases, images, video, audio, multimedia, interactive documents, websites, scanned or digitised documents and all computer records created or received in the process of decision making (MECS, 2016). The e-records sharing procedures entails a comprehensive and consistent document that provides a detailed recipe or instruction for records administrative functions and transactions through a computerised system such as an e-office platform (Pessa, 2019). The system administrator or e-records manager has to abide by the e-office platform procedures for software installation, performing a system backup, granting access rights to a system and setting up new user accounts (Henriksen & Andersen, 2008; Pessa, 2019).

Legislation and regulations are legal documents, principles, rules and laws that incorporate policies and procedures that provide the right of access, ownership or service provision (Ngoako, 2018; Pessa, 2019). The generated e-records play an important function in conserving the rule of law, documenting compliance or non-compliance with laws, rules, regulations, and procedures, and offering consistency, legal demonstrable sources of proof on policies, transactions, activities, decisions making and actions (Kamatula & Kemoni, 2018; Pessa, 2019). For instance, electronic signatures on e-records sharing have been legally accepted and thus may not be denied legal effect, validity, or enforceability merely because they are in electronic format. The e-records sharing has to be in line with the standards for the platform or system and on the ways of capturing, access and transaction between and within the organisation (Ngoako, 2018).

A standard is a published document with scientific and technical literature that sets out specifications and procedures designed to ensure that a material, product, process, method, or service quality complies with, is fit for its purpose and performs in the way it was intended to (Ambira, 2016). E-records sharing standards are those that have been developed to control and guide the records transaction and management function. The International Standards Organisation (ISO) developed various standards to provide guidelines for e-records transactions and the general management of e-records. For instance, the ISO (15489-1:2001) provided requirements for e-records management system creation and capturing, classification and description, management, access, sharing and security, search and retrieval, retention and disposition, preservation, and archiving.

Abuzawayda, Yusof and Aziz (2013) make recommendations on the use of e-records policy and standards, which guide the management, sharing and dissemination of e-records in higher learning institutions in Libya. In addition, Clarke, Watt, Sheard, Wright & Adamson (2017) indicate that the use of e-records policy and information technology (IT) policy is important for institutions and organisation in the management, sharing and dissemination of e-records in England. In addition, in the study of establishing a framework for the management of medical records in the Limpopo province of South Africa, Marutha and Ngoepe (2018) argued that there are important elements that should be in place for the effective and efficient sharing of health e-records in hospitals. These elements are broadly applied as guidance tools to any kind of field or organisation with a sophisticated platform for sharing e-records. The elements include governing practices that guide e-records management and transactions which incorporate the policies, legal and regulatory facilities, procedures, and job descriptions indicating responsibilities and accountability of decision makers and records professionals. For instance, Madulu (2016) states that the Tanzania national records and archives management policy of 2011 places emphasis on proper recordkeeping and sharing systems that capture records created or received by public office electronically.

#### ***Awareness on e-records guidance tools***

Awareness of e-records guidance tools is essential for the effective creation, use, sharing and storage of e-records (Pan, 2017). Although e-records are advantageous to an organisation, sharing and preserving them for the long term may be complex if record officers are not aware of the important guidance tools for the records' well-being (Mannan et al., 2018). Sharing e-records without policy and procedures for handling them may deliberately result to records deletion, alteration, and manipulation. In this regard, the National Electronic Commerce Coordinating Council (NECCC) (2004) and Bigirimana et al. (2015) suggest that there should be quality policies and procedures for e-records sharing and management, which should include e-records organisational and functional flowcharts, e-records classification, storage, back-up and disposition procedures, e-records system documentation, e-records retention and disposition schedules and e-records disaster preventions and recovery procedures. However, the established policies and procedures should be dynamic, well known to records managers and other e-records professionals, it should provide opportunities for e-records professional development programmes and the documents have to be frequently reviewed and normally on annual basis.

The main objective relating to awareness of e-records guidance tools is to ensure that the organisation and records officers create and maintain trustworthy records through the establishment of e-records integrity, usability, authenticity, and reliability (Kamatula, 2018). Apart from awareness of e-records guidance tools, the organisation and records officers have the responsibility of maintaining e-records and being involved in updating the e-records tools. However, there should be appropriate training related to e-records practices in respect of the operating platform that enables the professionals to adopt the changing e-records sharing technology (Asogwa, 2012; Pan, 2017; Kamatula, 2018).

#### ***Factors affecting application of e-records guidance tools in sharing e-records***

The efforts to modernised sharing of e-records have to be sustainable and realised to most of the African countries only when much attention is given to issues related to strategic utilisation of the infrastructures (Odekunle et al., 2017). However, establishment of reliable and functional legislation and regulatory tools for e-records management and sharing is equally important. In this regard, prioritising and dedicating resources to technological innovations and frequently reviewing the recruitment policy that efficiently ends up



recruiting competent personnel have to be observed (Asogwa, 2012; Odekunle et al., 2017; Ambira, Kemoni and Ngulube, 2019). In implementing e-records sharing processes and use of guidance tools has been reported constrained by various issues among the organizations and institutions in developing countries (Ambira et al., 2019). These constraints include, but are not limited to, a lack of e-records legislative tools, dependence from traditional approaches, poor commitment from top management unit, outdated awareness, traceability, and the language used in developing the tools (Bigirimana et al., 2016).

In addition, in the study of the application of guidance tools in managing and sharing e-records in South Africa, Marutha (2018) identified various factors that hinder the use of e-records guidance tools. Despite having the legislative tools for managing and sharing e-records, many African countries are faced by problems with using these tools, as they always struggle with the best implementation strategy that operationalises the application of the tools. Furthermore, Asogwa (2012), Pan (2017) and Ambira et al. (2019) indicate other fundamental factors deterring the application of guidance tools, which include failure of tools in addressing comprehensively e-records management and sharing practices, inadequate basic resources for sharing e-records, weak policies, and procedures for sharing e-records, outdated legislative tools, insufficient and qualified records managers and staff who can appropriately use and update the tools.

## **Study design and methods**

This study used the quantitative research design to collect, process and analyse data. The quantitative research design was used to collect basic descriptive statistical data on demographic characteristics, awareness on e-records guidance tools, usefulness of e-records guidance tools and the factors affecting the application of e-records guidance tools in sharing e-records. The study targeted TPSC managerial and administrative staff who made up a population of 96 staff members. Given the TPSC's staff member population, a census method was recommended to select a sample of 77 respondents for the study. In this study, 19 members of the staff (drivers and office attendants) were not involved, as they were not used in sharing e-records through the platform. Table 1 presents the demographic information of the respondents.

**Table 1: Social demographic characteristics (n=77)**

Characteristic	Category	Frequency	Percent
Gender	Female	38	49.4
	Male	39	50.6
Age (years)	Less than 30	4	5.2
	30-35	19	24.7
	36-40	18	23.4
	41-45	7	9.1
	46-50	24	31.2
	51-55	5	6.5
Academic qualifications	Diploma	5	6.5
	Bachelor's degree	20	26.0
	Postgraduate Diploma	1	1.3
	Master's degree	46	59.7
	PhD	5	6.5
Work experience (years)	Less than 2	2	2.6
	2-5	15	19.5
	6-10	37	48.1
	11-15	19	24.7
	More than 15	4	5.2

**Source:** *Field Data (2020)*

Furthermore, the study used a combination of methods to collect both secondary and primary data. Secondary data were obtained through documentary reviews while primary data were collected through a cross-section survey using structured self-administered questionnaires with both open and closed questions that were administered to 77 TPSC staff members. The data collected were subjected to processing and were quantitatively analysed using Statistical Product and Service Solution (SPSS) version 23 and Microsoft Excel 2010 to generate descriptive information.

## Results and analysis

### *Respondents' use to e-records*

The use of e-records facilitated effective decision making in various organisations and institutions. TPSC staff were asked to indicate whether they were used to e-records for the institutional functions and decision making. Table 2 presents the results of the respondents' use of e-records.

**Table 2: Respondents' use to e-records (n=77)**

Gender	Do you use e-records?				df	p
	Yes		No			
	Frequency	Percent	Frequency	Percent		
Male	38	49.4	1	1.3	1	0.541
Female	36	46.8	2	2.6		
<b>Total</b>	<b>74</b>	<b>96.2</b>	<b>3</b>	<b>3.9</b>		

**Source:** *Field Data (2020)*

The findings indicated that 74 (96.2%) respondents used e-records and 3 (3.9%) respondents did not use e-records. This implies that the majority of TPSC staff use e-records for decision-making and institutional functions. This phenomenon may be attributed to various factors, including responsibilities, computer, and e-records literacy.

### *Sharing e-records*

Tanzania Public Service College (TPSC) staff involvement in sharing e-records for the institution's functions and decision-making is imperative in fostering the changing technology landscape with regard to e-records transaction. In this study, TPSC staff respondents were asked to indicate if they were involved in the sharing of e-records; the results are presented in table 3.

**Table 3: Respondents' involvement in sharing e-records (n=77)**

	Are you involved in sharing e-records?					
	Yes		No		df	p
	Frequency	Percent	Frequency	Percent		
Male	36	46.8	3	3.9	1	0.432
Female	33	42.9	5	6.5		
<b>Total</b>	<b>69</b>	<b>89.6</b>	<b>8</b>	<b>10.4</b>		

**Source:** *Field Data (2020)*

Table 3 shows that 69 (89.6%) respondents were involved in sharing e-records while 8 (10.4%) respondents were not. The findings indicated that the majority of the TPSC staff (89.6%) were involved in sharing e-records. This suggests that the majority of TPSC staff were competent in the e-records sharing platform and were involved in decision-making. The findings further indicate that 8 (10.4%) TPSC staff members were not involved in sharing e-records, and this may be attributed to the organisational structure and the work distribution among the employees. However, issues related to security, computer literacy and authority in decision making may also be considered as among the limiting factors. In this regard, guidance tools form a crucial component of ensuring that the e-records sharing practice is securely controlled and records professionals are informed of the ethics in sharing e-records. This helps to maintain authenticity, reliability, integrity, and usability of the shared e-records.

### *E-records guidance tools awareness*

The process of sharing e-records has to be guided by various tools to maintain its security and ensure ethical issues with regard to e-records management and transaction are addressed. In view of this, TPSC staff were asked to indicate if they were aware of the e-records guidance tools such as policy, regulation, standards, principles, and procedures for handling e-records. Table 4 present results from the respondents.

**Table 4: Respondents' awareness on e-records guidance tools (n=77)**

E-records G/tools	Aware		Not aware	
	Frequency	Percent	Frequency	Percent
Policy	60	77.9	17	22.1
Regulation	57	74	20	26
Standards	46	59.7	31	40.3
Principles	40	51.9	37	48.1
Procedures	52	67.5	25	32.5

**Source:** *Field Data (2020)*

The findings indicated that 60 (77.9%) and 57 (74.0%) respondents were aware of e-records policy and regulations, respectively. On the other hand, 52 (67.5%) and 46 (59.7%) respondents reported that they were aware of procedures and standards, respectively, whereas 40 (51.9%) respondents were aware of the principles for sharing e-records. In addition, 37 (48.1%) and 31 (40.3%) respondents reported being not aware of principles and standards, respectively, for sharing e-records. Generally, the findings implied that TPSC staff were aware of e-records guidance tools and their roles in handling and sharing of e-records. However, through observation these guidance tools could not easily be traced. In this study, some respondents (<50%) were not aware of e-records guidance tools and this may be attributed to the fact that they were not involved in handling and sharing e-records as per their professional backgrounds and responsibilities within the institution.

#### *Usefulness of e-records guidance tools in sharing e-records*

E-records guidance tools are important and useful to ensure effective and efficiency handling and sharing of e-records within and beyond the organisation and/or institution. In this study, respondents were asked to indicate how useful the e-records guidance tools at TPSC were. Table 5 presents the findings on the usefulness of e-records guidance tools.

**Table 5: Usefulness of e-records guidance tools (n=77)**

Guidance Tools	Very useful		Useful		Not useful		I don't know	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Policy	34	44.2	25	32.5	7	9.1	11	14.3
Regulation	22	28.6	35	45.5	9	11.7	11	14.3
Standards	14	18.2	38	49.4	9	11.7	16	20.8
Procedures	25	32.5	33	42.9	2	2.6	17	22.1
Principles	14	18.2	40	51.9	5	6.5	18	23.4
Legislation	10	13	28	36.4	20	26	19	24.7

*Source: Field Data (2020)*

The findings in table 5 indicated that 34 (44.2%) respondents indicated that e-records policy was very useful while 40 (51.9%), 38 (49.4%) and 35 (45.5%) respondents indicated that e-records principles, standards, and regulations, respectively, were useful in guiding the handling and sharing of e-records. Furthermore, 20 (26%) and 9 (11.7%) respondents reported that legislation, but also regulations and standards, respectively, were not useful in guiding e-records sharing practices. Moreover, 19 (24.7%), 18 (23.4%) and 17 (22.1%) respondents did not know the usefulness of legislation, principles, and procedures, respectively, in the handling and sharing of e-records at the TPSC. The findings of this study showed different perceptions of TPSC staff on the usefulness of e-records guidance tools. However, most of the TPSC staff were generally aware of e-records guidance tools, but their views on its usefulness varied, which may be attributed to the availability of and accessibility to these tools, institutional organisation structure and the function performed by individual staff. On this, and through observation, it was noticed that much of the policy, principles and standards were not in place and the institution used in-house developed guidance procedures and regulations. In this regard, it is important that the Tanzania National Archives ensure that e-records guidance tools are developed, distributed, and updated to meet the changing technology in e-records management practices. The TPSC in-house developed e-records sharing procedures and regulations may fall short of content and thus lead to ineffective practices. However, the TPSC management stated that it is the responsibility of the

government to implement countrywide e-records guidance tools, which include e-records sharing policy, legislation, standards, and principles.

***Factors affecting the application of e-records guidance tools in sharing e-records***

In this study, it was also important to find the extent to which factors related to traceability, friendliness, language of guidance tools, users' awareness and updateness of the e-records guidance tools could affect the use of tools. The respondents were requested to indicate the extent of its influence; the findings are presented in table 6.

**Table 6: Factors affecting the use of e-records guidance tools (n=77)**

Factors	S/Agree		Agree		Neutral		Disagree	
	Freq.	Perc.	Freq.	Perc.	Freq.	Perc.	Freq.	Perc.
Trace procedures positively affect access to and use of e-records guidance tools	12	15.6	43	55.8	20	26	2	2.6
Guidance tools' user-friendliness positively affects their access to and use	11	14.3	46	59.7	19	24.7	1	1.3
Language used in guidance tools positively affects their access to and use	22	28.6	33	42.9	21	27.3	1	1.3
Users' awareness positively affects access to and use of guidance tools	13	16.9	43	55.8	20	26	1	1.3
Updateness of guidance tools positively affects their access to and use	31	40.3	26	33.8	18	23.4	2	2.6

**Source:** Field Data (2020)

The findings indicated that 46 (59.7%) respondents agreed that guidance tools' user-friendliness positively affected access to and use, whereas 43 (55.8%) respondents agreed on trace procedures, and users' awareness positively affected access to and use of guidance tools. Furthermore, 33 (42.9%) respondents agreed that the language used in guidance tools positively affected access to and use of the resources. With regard to updateness of guidance tools, 31 (40.3%) respondents strongly agreed that the factor positively affected access to and use of the resources, while 26 (33.8%) respondents agreed that updateness of guidance tools positively affected access to and use. In addition, 22 (28.6%) respondents strongly agreed that language used in guidance tools positively affected access to and use of these tools, while 21 (27.3%) respondents were undecided, and 1 (1.3%) respondent disagreed. Similarly, 12 (15.6%) respondents strongly agreed on trace procedures as they positively affected access to and use of e-records guidance tools, whereas 20 (26%) respondents were undecided, and 2 (2.6%) respondents disagreed. In this regard, the study findings indicated that the majority (>50%) of the respondents agreed on the fact that guidance tools' user-friendliness, trace procedures and users' awareness positively affected access to and use of e-records guidance tools.

## Discussions

### *Use and sharing of e-records at the TPSC*

The study findings as shown in tables 2 and 3 indicated that the majority (96.2%) and (89.6%), respectively, of TPSC staff members used and shared e-records over the e-office platform. Findings on the use of e-records at the TPSC were closely related to the study by Demirtela and Bayramb (2014) on the efficiency of e-records management systems in Turkey who observed that 85% of the respondents from the ministry of development used e-records in performing the ministerial functions and decision-making. On the other hand, Rakemane and Serema (2018) studied electronic records management practices at the Companies and Intellectual Property Authority (CIPA) in Gaborone, Botswana. According to Rakemane and Serema (2018), 44 (100%) respondents at the CIPA were involved in creating and sharing e-records in the authority by using various platforms such as emails, workflow systems and databases. In this regard, an organisation or institution with an effective platform for e-records sharing encourages and motivates various stakeholders' involvement in the process of records transaction. However, it is recommended in the use of e-records guidance tools for comprehensive and consistency e-records sharing practices. Moreover, a sound e-record sharing platform that effectively involves stakeholders enhances organisation performance, visibility, transparency, accountability, and ultimately effective decision-making.

### *E-records guidance tools awareness*

The management and sharing of e-records are crucial for fast decision-making and time management. Records managers and other records professionals have to be aware of e-records guidance tools for consistent and efficient sharing of e-records. Findings as shown in table 4 indicated that the majority (77.9%) and (74.0%) of respondents were aware of e-records policy and regulation, respectively, and fewer than 50% of the respondents were not aware. Along this line, Newa and Mwantimwa (2019) argue that awareness of e-records guidance tools such as standards and policy are imperative tools for e-records handling and sharing, as they assist in the provision of frameworks and guidelines on how e-records have to be handled within the institution or organisation. According to Newa and Mwantimwa (2019), standards and policy can also provide guidelines on what other elements of e-records guidance tools can operate. Similarly, in Tsabedze's (2018) study on e-records readiness in context of e-government strategy in Swaziland observed that all the respondents (163: 100%) were fully aware of e-records management and sharing guidance tools. Contrary to this finding, a study by Bigirimana et al. (2015) on assessment of the effectiveness of e-records management at Africa University, Mutare, Zimbabwe, showed that only 8 (33.4%) respondents indicated that they were aware of e-records policy and procedures, whereas 16 (66.6%) were not aware. Based on these findings and awareness of e-records guidance tools variations, it is obvious that various organisations and institutions are used to e-records and shares between different stakeholders. In view of this, it is imperative that e-records officers and other employees in the organisations are well informed of the availability of e-records guidance tools for effective handling and sharing of e-records. In this regard, organisations and institutions management have to ensure that e-records guidance tools are in place and have to be well communicated to the employees and other stakeholders.

### *Usefulness of e-records guidance tools in sharing e-records*

The study findings on the usefulness of e-records guidance tools in sharing e-records at the TPSC signify that majority of the staff are well informed of the usefulness of e-records guidance tools. This was also observed by Rakemane and Serema (2018) that the Companies and Intellectual Property Authority (CIPA) in Gaborone, Botswana, confirmed the usefulness

of ideal procedures, standards and policy in handling and sharing e-records. Similarly, in the study on e-records readiness at the Karonga District Council in Malawi, Malanga and Kamanga (2018) report that effort on sharing e-records was good but there was inadequate and poor adherence to policies, standards and procedures for handling and sharing e-records although 23 (41.1%) respondents revealed that e-records guidance policy was useful in the process of sharing e-records. Moreover, in the study by Chikomba, Rodrigues and Ngoepe (2020) on the management of digital records in selected financial services parastatals in Zimbabwe, it was revealed that the parastatals used and shared e-records without guidance from the requisite tools. Employees and other stakeholders use experience in sharing e-records. The authors put forward the fact that the financial service parastatals under study had no e-records guidance tools such as policies, guideline procedures and standards, but also had inadequate infrastructures and skilled human resources for effective and efficient handling and sharing of e-records. Moreover, organisations and institutions have to ensure that useful e-records guidance tools are available at the working environment; otherwise, a need for developing its own guideline is imperative. Additionally, both private and public organisations and institutions have a role to remind the records national organs to establish these tools provided that they are centrally prepared.

On this, Tsabedze (2018) found that the Swaziland National Archives was responsible for the provision of e-records policy, standards and principles to different ministries and institutions in Swaziland for guidance of the processes of handling and sharing e-records, but it was not improvised. In this regard, the in-house procedures and regulations were used to manage and share e-records and records staff were frequently reminded to adhere to the developed tools. In addition, the National Archives of Zimbabwe has a legal mandate to provide e-records policy, standards, and principles for guidance on the management and sharing of e-records among the government agencies and institutions. However, it has not improvised with these tools, instead the institution's developed procedures and principles are often used, and staff are frequently reminded to use it in the e-records transaction (Chikomba, Rodrigues & Ngoepe, 2020). Generally, and based on these findings, it is imperative that the national archives of developing countries have to ensure availability of e-records guidance tools for various organisations, institutions and government agencies as they aided value in management and sharing of e-records. The absence of these potential guidance tools and reminders on its use undermines various entities' attempts to effective management and sharing of e-records.

#### ***Factors affecting the application of e-records guidance tools in sharing e-records***

The study findings in table 6 indicated that the majority (>50%) of the respondents agreed on the fact that guidance tools' user-friendliness trace procedures and users' awareness positively affected access and use of e-records guidance tools. These findings imply that there were few e-records guidance tools and it seemed that it could not be found and thus were not user-friendly and employees were not assured about the availability of these tools. In a study by Maulid (2015) on the assessment of the effectiveness of electronic records management systems in selected courts of Tanzania, he observed that awareness of e-records guidance tools affected the handling and sharing of records. Similarly, on the study of the framework for e-records in support of e-government implementation in the Tanzanian public service, Kamatula and Kemoni (2018) indicated that employees were not informed of the existing e-records legislation, policies and regulations and reported on difficulties to trace these tools. It is obvious that, with e-records guidance tools for the handling and sharing of records, issues related to its availability, friendship, appropriate infrastructures, sufficient resources,

including skilled manpower and funds, could add value in making comprehensive e-records sharing among staff and the institution at broader perspective.

## Conclusion

The study has shown that the sharing of e-records at the TPSC is primarily guided by in-house tools such as procedures and regulations. It is therefore recommended that the institution should collaborate with the Tanzania National Archives to ensure that e-records guidance tools are developed and shared to the organisations or institutions throughout the country. In this information age, most of the public and private organisations and institutions are used to create and share e-records and, therefore, there should be national standards, policy, procedures and principles that guide the relevant processes. Moreover, these tools have to be updated frequently to allow for and adapt to the rapid technological changes in e-records management and sharing processes. Further study of the factors that prevent the establishment of a suite of national guidance tools should be carried out. The institution currently uses its own outdated and limited guidance in-house tools. The Tanzania National Archives has a key role to play in developing and promulgating guidance tools and, therefore, those factors hindering their development must be identified and addressed.

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