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Master's Thesis of Public Administration

**An Analysis of E-Government Users'
Satisfaction in Tanzania**

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ABSTRACT

An Analysis of E-Government Users' Satisfaction in Tanzania

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E-Government users' satisfaction is an important factor for users to continue using E-Government Systems. Many countries, developed and developing ones, have been using E-Government services with the intention of transforming public service institutions and public services delivery. Governments have been investing heavily in E-Government so as to deliver quality services, engaging the community and stakeholders in decision making process and with the intention of minimizing corruption. There still remains the question of what factors really influence e-Government users' satisfaction.

This study aims to analyze factors influencing E-Government users' satisfaction, by using the E-Office Management System at the Judiciary of Tanzania as the case study. Basing on available literature on the field of e-Government, four independent variables that may influence E-Office Management System users'

satisfaction are analyzed in this study. Identified independent variables for this study are System Quality, Information Quality, Service Quality and Security and Privacy. Furthermore, Gender, Age, Level of Education, Working Experience, Job Position and Frequency of Using E-Office Management System are used as control variables of this study.

From four independent variables, four hypotheses were formulated in this study. Survey data from 112 employees of the Judiciary of Tanzania who have access to e-Office Management System were collected and used to test four hypotheses of the study. IBM SPSS Statistics software was used to analyze data collected from the respondents of this study.

Findings show that Information Quality and Security and Privacy positively influence e-Office Management System users' satisfaction. However, this study did not confirm if System Quality and Service Quality have a positive influence on E-Office Management System users' satisfaction. Moreover, all control variables were not confirmed to have any positive influence on users' satisfaction. The findings of this study provide some insights to decision makers to keep into consideration factors that positively influence E-Government users' satisfaction, and calls for more research to be conducted on effects of service quality and system quality on e-government users' satisfaction.

Keywords: System Quality, Information Quality, Service Quality, Security and Privacy, and e-government users' satisfaction.

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CHAPTER 1. INTRODUCTION

1.1 Background and Research Question

The Public Sector has been implementing e-Government Strategies and initiatives for the purpose of improving delivery of services to its citizens (Coursey & Norris, 2008). Before 1990s Governments and its institutions paid little or no attention to the quality of services and responsiveness to its citizens but with the New Public Management movements in developed nations from the 1990s changes happened (Teicher et al., 2002; Ndou, 2004). Although such changes in the public sector have largely been accepted as the procedures, they have not been without their problems taking into considerations the characteristics of the public service (Hazlett & Hill, 2003). Those problems created by the e-Government must be removed for it to serve the purpose as intended (Susman, 2001). It is essential to investigate factors influencing users' behaviors towards e-services (Hazlett & Hill, 2003).

Electronic Government, which involves the use of Information and Communication Technologies for Government operations has changed the way through which public services in general were delivered and the relationship between the Government, important stakeholders and people as well (Teicher et al., 2002). Information technology has changed people's lives, works, businesses, communications, opportunities and choices as well. It has created access to services for twenty-four hours a day, seven days a week. Moreover, it has increased choices (HMSO, 1999). E-Government has transformed internal processes of governments, has opened new

possibilities for transparency and has enabled fundamental changes in the relationships within the community. It has improved the quality-of-service delivery, transparency and accountability. It has created more chances for economic development, productivity and competitiveness in developing countries (Ndou, 2004).

Governments have intensified efforts to improve efficiency of public services by transforming public institutions through e-Government. It is governments desire to make public services more efficient so as to gain public trust (Weerakkody & Reddick, 2013). Developing countries have been investing heavily in e-Government with the intention of delivering quality services, engaging citizens and stakeholders in the decision making process, facilitating accountability and minimizing corruption (Bakon et al., 2020) however “e-Government innovation has often not met the expectations” due to poor planning and improper implementation (Choi & Chandler, 2020), transactional costs, low digital literacy and lack of awareness on e-government services (Sharma et al., 2021). Financial shortages, poor policies, infrastructures, poor integration across government electronic systems and across organizations, security threats and trust are also barriers towards e-Government success.

However, levels of trust, cost versus quality and readiness to use Information technologies must be kept into consideration when adopting e-Government services (Hazlett & Hill, 2003). Formal e-Government strategies, plans and capacity helps countries to achieve better results (Dias, 2020) must be kept into consideration as

well. After going through various literature in the field of Electronic Government, the main question for this study is: -

Research Question

This study has one main research question: -

1. What are the main factors influencing e-Office Management System (E-Office) users' satisfaction at the Judiciary of Tanzania?

1.2 Significance and Purpose of the research

Recently there has been an increase of e-government usage in Tanzania, but very few researchers have conducted studies on e-Government users' satisfaction in Tanzania. From the background discussed above and taking into consideration the progress that Tanzania has made particularly in e-government, it attracts the question of e-government users' satisfaction and attracts me to conduct a study on e-Government satisfaction specifically the e-Office Management System (E-Office).

There are some studies about e-Government globally and Tanzania in particular. Amongst the studies available, few have focused on e-government users' satisfaction in developing countries, specifically Tanzania and to the best of my knowledge, no researcher has researched about factors influencing E-Office user satisfaction so far. The background and development of e-Government in Tanzania creates another reason for me to seek to understand factors leading to E-Services users' satisfaction.

Therefore, through this research, a researcher will find an answer to question of factors leading to E-Office Management System users' satisfaction.

This research seeks to contribute to the development of e-government strategies and initiatives in Tanzania and the World at large. It will further be part of few literatures that are available for e-government user satisfaction in developing countries, specifically Tanzania and it will test the theory of modified Comparison Level Theory. In summary, the main purpose of this research is to assess factors influencing e-Government users' satisfaction especially in Tanzania, to contribute to the development of e-Government Policies, strategies and initiatives, to contribute the e-Government literature in developing countries especially Tanzania and to test DE Lone and McLean 2003 Information Systems Success Model (D&M 2003 IS Success Model) applicability in Tanzanian case.

1.3 Scope of the research

This study focuses on e-government services satisfaction: the quest for e-Office at the Judiciary of Tanzania. The Judiciary of Tanzania composes of two parts namely; (i) Judicial; (ii) and non-Judicial (administrative). The Judicial part deals with hearing and determining cases while the non-Judicial part or simply administrative section deals with financial matters, assets administration and human resource management as well. The Judiciary of Tanzania is under the supervision of the Honorable Chief

Justice who is also a leader of the Judicial section. The administrative section is under the supervision of Chief Court Administrator who is also the Chief Executive Officer.

Briefly, The Judicial part includes Court of Appeal Judges, High Court Judges, Registrars and Deputy Registrars, Deputy Registrars, Resident Magistrates and Primary Court Magistrates while the administrative section composes of the Chief Court Administrator, Court Administrators, Directors, Deputy Directors, and Action Officers (Human Resource Officers, Administrative Officers, Accountants, Economists, Statisticians, IT personnel, Procurement Officers, legal officers etc....) and other cadres such as Records Management Assistants, Personal Secretaries (typists), Drivers, Security guards, Telephone Operators, Chefs, and Office Assistants.

The scope of this study (e-Government services satisfaction: The quest for e-Office Management System at the Judiciary of Tanzania) is to find factors influencing E-Office users' satisfaction at the Judiciary of Tanzania. Participants in this study are Judiciary employees who have access to E-Office. Participants can be divided into three major groups namely; (i) The Management; (ii) Officers; and (iii) Records Management Assistants. It should be noted that not all employees of the Judiciary of Tanzania have access to E-Office and Therefore, participants will be selected from the sampling frame which includes only employees with access to E-Office.

1.4 Research Methodology

This study adopts quantitative and explanatory research design methodology to determine main factors influencing E-Office users' satisfaction at the Judiciary of Tanzania. The study will measure different factors said to influence e-government users' satisfaction with a case study of E-Office. E-Office is supervised by E-Government Agency (e-GA) and used by a number of Government ministries, institutions and independent departments in Tanzania. A stratified sample of 125 will be selected from 151 users of e-Office Management at the Judiciary of Tanzania. The users of e-Office Management at the Judiciary of Tanzania are divided into three main groups; (i) Management team; (ii) Officers; and (iii) Records Management Assistants.

A well developed, pre-tested survey questionnaire will be sent in form of **Google form** to selected respondents. If a number of responses will not be enough then phone call interviews will be used in this study. Data collected will be analyzed by using descriptive statistics (mean, median, mode, percentage, frequency and range) and inferential statistics (Correlation, regression and analysis of variance) through IBM SPSS statistics software. Visualization will be made through the same software and interpretation will base on the findings from primary and secondary sources.

In the introductory chapter, we have seen the background of e-Government and informatization in Public Sector, the significance of the study, the purpose of the study, scope of the study and research questions as well. Generally, we have been able to

see the emerging of e-government in public service during New Public Management movements and public service reforms, we have seen why this study is important specifically for Tanzania and other developing countries, we have seen the breadth of study and lastly questions to be answered by this study. The next chapter is Theoretical Background and Literature Review.

CHAPTER 2: THEORETICAL BACKGROUND AND LITERATURE REVIEW

2.1 Theoretical Background

There has been the rapid development of Electronic Government (e-Government) application in the public sector. Information and Communication Technologies have been used in daily government activities, businesses and operations as well. As a result, there has been an increase of studies about e-Government in recent years. Recently, many people want to live in the countries which provide quality services to its citizens and therefore it has become important for governments to improve the delivery of services and therefore, government institutions have been looking for ways to improve efficiency and effectiveness (Huai, J 2011).

E-Government is not just a movement that is happening in one country, but it is a truly global phenomenon affecting both nations (developed and developing). The e-Government took off with the commercialization in 1990s when the internet became an important tool for business to reach more customers (Reddick, 2010). E-Government was born out of the Internet boom just like e-Commerce; however, it is not limited to internet use or publicly accessible systems for the direct use of citizens or customers. (Gronlund et al., 2005).

Governments and institutions have adopted and implemented Information and Communication Technologies strategies and this practice have affected the relationships within societies (Himanen, 2001). Official governmental websites aiming at the delivery of services and information began appearing in 1990s with the promise to improve government Efficiency, transparency and responsiveness, and that was the beginning of the term e-Government to emerge Jackson and Curthoys, 2001). With the advancement of Information and Communications Technology, citizens' expectation towards delivery of Public Services have been increased (Wescott, 1999).

For e-Government to be a success, there is a need for stable and committed government that aims to harness the potential of Information and Communication Technologies for better delivery of services, coupling strategies with effective evaluation and learning from success stories (Bojang, 2019). It requires the realization of the importance of integration and transformation between Information Technology strategy, the process, technology and people (Azab et al, 2009). Citizen's perception toward using e-Government services, perceived usefulness of e-Government systems and perceived ease of use of e-Government services affects e-Government success (Alhujran, 2009). Moreover, Citizen's demand, political support, technical capacity, administrative professionalism and social economic characteristics such as education (Ingrams et al, 2018). Factors for e-Government success can be categorized into (a) managerial factors such as organizational

characteristics, processes and structures, (b) institutional factors which include law, regulation and norms which guide individual behaviors and lastly, (c) environmental factors which are organizational contextual (Kim & Eom, 2019).

Some factors which account for e-Government failure are exclusion of skill-levels, values, beliefs and motivations in e-Government projects, poor Information Technology infrastructure, uncompetitive rates of pay to high quality Information Technology professionals, outsourcing of e-government projects to private sector and dependence from donors lead for e-Government failure (Dada, 2006). Moreover, inadequate system requirements, poor project management, inadequate project planning, incomplete or missing features, inappropriate choice of technology, insufficient top management support, integration failure, procurement and contract shortcomings, poor business process management and staffing and skills shortfalls accounts for e-Government Information systems failure in Developing countries (Nyansiro et al, 2021). Other failures result from pre-conditions for e-Government and tactical challenge of closing design-reality gaps (Heeks, 2002; Bojang, 2019).

Since Governments and institutions have been adopting e-Government initiatives and strategies, measuring users' satisfaction becomes very important and inevitable. Various models have been suggesting criteria for measuring information systems such as that of De Lone and McLean Information Success Model and (D&M IS Success Model of 2003) and Shannon-Weaver model of Communication. Consumer/user

satisfaction in various services and goods has been evolved from using early theories such as dissonance theory (Festinger, 1957) contrast theories (Anderson, 1973) to medieval and contemporary theories such as Expectancy-Disconfirmation Theory (Oliver, 1977 & 1980), The Comparison Level Theory (Thibaut & Kelley, 1959) The Modified Comparison Level Theory (LaTour & Peat, 1979), Value-Percept Theory (Westbrook & Riley 1983).

In this research, The Modified Comparison Level Theory (LaTour & Peat, 1979) will be used as the foundation when studying the influence of Information Quality, System Quality, Service Quality and Security and Privacy on e-Government users' satisfaction. The Modified Comparison Level Theory holds an argument that users bring attributes and a number of criteria when comparing standards. Sometimes users may use predictive expectations basing on what has been said (communicated) about e-Government systems and have different standards basing on their prior-experiences on other E-Systems.

For the Modified Comparison Level Theory, user's satisfaction with the service can be determined by the percentage of Comparison Level (the difference between the outcome and as the standard of comparison). For the attributes where more attribute is desirable (positive) means satisfaction while negative attributes mean dissatisfying. Attributes can be weighted basing on personal prior experiences for similar services, levels of attributes which similar users have and expectations created by the

Government on e-Government services. Therefore, this research aims to analyze the influence of Information Quality, System Quality, Service Quality and Security and Privacy with relations to (i)prior experiences, (ii)other users experience and (iii) expectations on users' satisfaction.

2.2 The Concept of E-Government and E-Government in Tanzania

2.2.1 Defining E-Government

The definitions of E-Government have been provided by different Organizations and authors. Most of the definitions shows that e-Government is the use of information technologies and technological communication devices to provide services or to transform the relations between government and citizens. From the World Bank, Organization for Economic Co-operation and Development (OECD,2005) and the government of Tanzania definitions on e-government we can agree that e-Government is the use of the internet to affect the interaction of government, citizens and stakeholders and E-government strategy is adopted to solve problems which are related to time and cost efficiency, bureaucracy, transparency, corruption, lack of information etc... The following table (Table 2.1) summarizes some e-Government definitions: -

Source	Definition
(Molefi & Radhamany, 2021).	<p>The use of technological communications devices such as the internet, computers and smart phones to provide services to people.</p> <p>E-Government has given a chance for a more direct way and much citizen access to government and services.</p> <p>E-Government has provided an opportunity for governments to provide services directly and smoothly to the citizens.</p>
World Bank (WB)	The use by government agencies of information technologies that have the ability to transform relations with citizens, businesses, and other arms of government.
The Organization for Economic Co-operation and Development (OECD)	<p>The use of information and communications technologies (ICTs) and particularly internet, to achieve better government.</p> <p>This means that the government must create conducive environment for e-government strategies and initiatives to be a success.</p>
2016 National ICT Policy of Tanzania, Page IV	The use of information and communication technologies by the government to transform its relations with citizens, businesses, and within different arms of government
Brown & Brudney, 2001	<p>The use of Information and Communication technologies more often web-based applications to facilitate efficiencies in the delivery of government information and services.</p> <p>E-Government can be categorized into three broad categories which are government to government, government to business, and government to citizens.</p>

However, one may add government to civil society organizations and citizen to citizens if interaction among the citizens is related to the first three categories of e-Government.

Table 2.1 Definitions of E-Government

2.2.2 E-Government Development Stages

E-Government development stages can be clearly shown by using Gartner's four phases of e-Government and the UN-ASPA Models. Both models have much similarities and little differences. While Gartner's four phases show that E-Government development starts from Presence stage, Interaction stage, Transaction stage to Transformation stage UN-ASPA models shows that e-Government evolves from Emerging Web Presence, Enhanced Web Presence, Interactive Web Presence, Transactional Web Presence to Fully Integrated Web Presence. Table 2.2 and 2.3 provides a summary of E-Government development stages as presented by Gartner;

Stage	Characteristics	Summary
Presence stage	The beginning stage of e-government development and implementation in a particular time, Cheaper and simple, Offers very few options to citizens and stakeholders, No interaction between the government and citizens.	A presence stage can be a website showing important information of a certain organization such as address, location, operating hours and functions of that organization.

Interaction stage	The second stage, Websites offers interaction between the government and citizens, Limited interaction, the interaction stage involves exchange and provision of information.	Integration stage helps citizens and stakeholders to gather necessary information online without making routes to responsible offices of making phone calls for frequently asked questions.
Transaction stage	Third stage, Complex, involves a number of e-government functions such as renewing license, paying fees and taxes, bidding etc....	Transaction stage allows citizens and stakeholders to complete tasks electronically at any time and the response is generally regularized with predictable outcomes.
Transformation stage	The fourth and last stage, High use of technology to enhance government functions and service delivery to citizens and stakeholders.	Transformation stage is the stage of high use of technology.

Table 2.2 Gartner's Four Phases of e-Government

E-Government development according to UN-ASPA;

Stage	Characteristics	Summary
Emerging web presence	Government sites assumes the role of being the source of public information, Information provided on websites are static. Contact information such as telephone numbers, postal address, email address, services and goods offered, organization structure, functions etc.... is provided.	Similar characteristics with the first stage of Gartner's Four Phases of e-Government.
Enhanced web presence	Information is regularly updated, Information can be accessed by citizens and stakeholders, Useful forms and any other documents can be downloaded or applied online. Features which allow comments are accessible online.	Similar characteristics with the second stage of Gartner's Four Phases of e-Government.
Interactive web presence	Websites act as a portal; Specialized databases can be accessed by citizens and stakeholders. Documents and forms can be downloaded and submitted online, there is emerging of security and passwords.	It shares some characteristics with the second and third stage of Gartner's Four Phases of e-Government.
Transactional web presence	Completion of transactions online, Users can customize the portal in order to access their specific	Shares characteristics with the third and fourth stage of Gartner's Four Phases of e-Government.

priorities and needs, Websites are ultimately secured at this stage.

Fully intergraded (seamless) web presence	The last stage, Services provided are linked through a single portal, Different agencies and departments interact automatically, Payment services are available online as well, Cohesive interface, Customization according to user needs and the search engine option.	Similar characteristics with the fourth stage of Gartner’s Four Phases of e-Government.
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Table 2.3 Five stages of e-Government Development According to the United Nations -American Society for Public Administration (UN-ASPA).

2.2.3 E-government in Tanzania.

The United Nations report on Benchmarking E-Government: A global perspective (2002) shows that Tanzania E-government index (web presence, telecommunications infrastructure and human capital measures) was 0.83 while Africa (regional) average was 0.84 by 2001. From then, UN Reports has been showing that Tanzania is improving in terms of E-Government Development Index (UN E-Government Survey 2014, 2016, 2018 and 2020). The United Nations Department of Economic and Social Affairs shows that Tanzania E-Government Development Index ranked 152 of 193 (0.4206) and E-Participation Index ranked 98 of 193 (0.5595) by 2020. Tanzania Communications Regulatory Authority (TCRA) statistics shows that, 50% of the population in Tanzania had access to internet by March 2021.

The government of The United Republic of Tanzania at different moments has been adopting policies, strategies, laws, regulations, and strategic plans to promote and provide quality e-government services such as the National Information and Communications Technologies Policy of 2003 and 2016, Tanzania e-Government Strategy of 2013, Strategic plans of 2012, 2017 and 2021, The e-government Act of 2019, The Cyber Crimes Act of 2015, etc....The government of the United Republic of Tanzania implemented National Information and Communication Technology policy of 2003 in order to facilitate socio and economic progress by promoting Information and Communication Technologies initiatives which can benefit all sectors.

The Government provided areas for investments, especially in capacity building and knowledge sharing. The policy identified opportunities that Tanzania was supposed to utilize so as to attain The National Development Vision 2025. The policy aimed to promote good governance by promoting e-government, enhancing ICT infrastructure and facilitating competitive economy.

In Access, when Tanzania was adopting National ICT Policy of 2003, Tanzania's tele density was low (a tele density of 1.2- that is 12 mobile lines per 1000m people while Tanzania's Public Switched Telephone Network (PSTN) was over 95% digital. ICT facilities were not manufactured in Tanzania and there were no national standards guiding quality and quantity of imported facilities. Very few education institutions

had computer laboratories and other media facilities to enable teaching and learning environment. Teaching syllabus was outdated in respect to the development science of technology since the early 1990s. Societies accessed internet through internet Cafes and with limited participation. The most websites in Tanzania were in an English language (Not Swahili-Tanzania national language) and did not have updated and accurate information.

There was scarcity in the availability of Information Technology professionals compared to demands especially in areas which demanded highly qualified personnel. Very few local websites were offering electronic services and were constrained by lack of electronic payment system. On 2016, Tanzania adopted second National ICT Policy, which was the revision of the National ICT policy of 2003. Former policy created jobs and facilitated efficiency and productivity which led to increased ICT hence contribution to the growth of Gross Domestic Product. The national ICT Policy of 2016 seeks to facilitate socio-economic development. Some of its objectives are to facilitate public participation and understanding of ICT benefits.

By 2016 the ICT infrastructure was highly developed especially after the implementation of National ICT Broadband Backbone (NICTBB), construction of the National Data Centre in Tanzania, progress in internet exchange points as well as private sector participation. There has been an increase of mobile services usage nationwide although there are inequalities in access between rural and urban areas.

The Government of Tanzania through the Ministry responsible for Communication, Science and Technology (MCST) has implemented National ICT Broadband Backbone (NICTBB) seeking to provide ICT connectivity to Tanzanians at all levels as well as neighboring countries. The main customers of NICTBB are the licensed Telecoms Operators in Tanzania, which also provide services to bordering countries for access to submarine cables in Dar es Salaam Landing Points. Several national operators and cross boarder operators have been connected to NICTBB. The National ICT Broadband Backbone has facilitated the usage of ICT for social and economic development. It has enabled the implementation of e-government, e-learning, e-health and e-commerce in Tanzania.

In 2019, the government of Tanzania established E-Government Authority (e-GA). The agency promotes, coordinates and enforces e-Government policies in Tanzania so as to improve public access to services. It tracks and measures the progress and effects of e-government as well as ensuring that public institutions implement policies and collects statistics.

Table 2.4 Telecommunication Infrastructure Index in Tanzania

Year	2018					2020				
	PI	TII	MCS	FBS	ABS	PI	TII	MCS	FBS	ABS
Status	13	0.1403	72.06	3.33	8.94	25	0.243	77.24	1.53	9.1

PI = Percentage of individuals using the internet, TII =Telecommunication Infrastructure Index, MCS = Mobile cellular subscriptions per 100 inhabitants, FBS = Fixed broadband subscriptions per 100 inhabitants, ABS = Active mobile subscriptions per 100 inhabitants.

Source: United Nations E-Government Surveys of 2018 and 2020

Table 2.5 E-Government Development in Tanzania

Year	2010				2020			
Component	WR	HC	EP	ED	WR	HC	EP	ED
Status (Score)	137	0.6731	0.042	0.2926	152	0.4659	0.5595	0.4206

WB = World Ranking, HC = Human Capital Index, EP = E-Participation, ED = E-government Development.

Source: United Nations E-Government Surveys of 2010 and 2020

2.2.4 Functions of E-Government in Tanzania

Government to Government (G2G) which enables online communications between ministries, government organizations, agencies, and independent departments. G2G is enhanced by the use of online communication which allows sharing of resources among institutions. E-Systems which falls under this category are **e-Office Management System**, Government Mailing System, Enterprise Resources Management Suite (ERMS), Government e-Payment Gateway Portal, the Government of Tanzania Hospital Operations, etc....

Government to Citizens (G2C) which enables online communications between Government organizations and the general public. G2C provides online access to information and services from the government to individuals. E-Systems which falls under this category are Individual Online Tin Application, e-Immigration, Ajira (employment) Portal, Government Mobile Portal, e-Ticketing and Cargo System, Used Vehicle Valuation System, etc....

Government to Employees (G2E) which connects the Government and its Employees. G2E seeks to provide one-stop online access of services and information to employees through different systems. E-Systems which falls under this category are Salary Slip Portal, Government Lawyers Database, the Government Real Estate Management System, e-Vibali (permits), The IFM Staff Information System, etc.....

Government to Business (G2B) which facilitates the relationship between Government and Business Sectors. G2B seeks to provide one-stop online access to services and information to business sectors through different systems. E-Systems which falls under this category are BRELA Online Registration System, Tax Payment Registration, Fiscal Device Management, the Tanzania National e-Procurement System, TRA Online Gateway, TIRA RBS System Portal, etc....

Government to Students (G2S) which enhances the relationship between Government and Students. G2S provides online access to information and services to

students through different systems. E-Systems which falls under this category are Universities Information Management System (UIMS), the University Programs Management System (PMS), Members and Examination Management Systems (MEMS), Online Loan Application and Management System (OLAS), the Academic Registration Information System (ARIS) etc....

2.2.5 Advantages of e-Government in Tanzania

E-Government facilitates information sharing between the government, citizens and other stakeholders, improves interaction between government, citizens and stakeholders, simplifies transactions and enhances community transformation (OECD, 2005). Currently It requires little time for information to be transmitted from the source to the receiver compared to the period before e-Government. Through information sharing it is easy for important decisions to be made smoothly and thus this fosters development in communities. Information in the e-Government era is accurate and, in most cases, up to date. It is very easy to verify the source of information as well as to interact with. It is also very easy to correct information and to reach targeted people in the e-Government era. E-Government has improved interaction between government, citizens and stakeholders compared to the period before e-Government. Recently, citizen and stakeholders can interact with governments through various e-platforms.

E-Government has simplified transactions between government, citizens and other stakeholders. This aspect has led to greater tax and greater collection of revenues and has reduced fraud in systems, it has improved risk management as well as improved security. E-Government has transformed (modernized) communities by making information sharing, interaction and transaction between government, citizens and other stakeholders possible. E-Government has also increased citizens and stakeholders' involvement in government decisions and has thus contributed to transparency.

E-Government has improved efficiency between government, citizens and other stakeholders by reducing internal processes and saving time, it has improved customer service and reputation, service consistency and equality, improved communication, user satisfaction, trust and confidence, enhanced public policy, democracy and has made flexibility on working hours, reduction of errors and complaints, reduction of repetitions of work and the need for multiple collection of information from citizens and stakeholders (OECD, 2005).

2.2.6 Challenges of e-Government in Tanzania

The challenges of e-Government in Tanzania are irresponsiveness, inefficient and ineffective of the system and low quality of services provided by the E-Government Systems (Lupilya & Kwangho, 2015). There is uneven development and integration of Information and Communication Technology within the Government, shortage of

resources, disintegration of ICT applications, duplication of ICT infrastructure and unstandardized ICT equipment, devices and online services (Wahid, 2018).

2.2.7 E-Office Management System in Tanzania

E-Office Management System is a Government to Government (G2G) system which enables online communications between Government ministries, Government organizations, Government agencies, Local governments and independent departments. Government to Government system is enhanced by the use of online communication which allows sharing of resources among government institutions. E-office Management system in Tanzania is currently used by more than 30 government institutions including the Judiciary of Tanzania. The system is developed and supervised by the E-Government Agency of Tanzania (e-GA).

The Judiciary of Tanzania is using E-Office Management System since the second half of 2021 with expectations of achieving improved efficiency and effectiveness. Several action officers have been given access to E-Office Management System ranging from the management (Organizational leaders), Low-Mid-and Senior-Officers to Records Management Assistants (lower employees). For some instances, E-Office Management System seems to be a way towards paperless and less paper in Tanzania. This study will focus on factors influencing E-Office users' satisfaction at the Judiciary of Tanzania.

The core function of E-Office Management System (e-Office) is to automate Office registry business process of the Government of Tanzania. E-Office started with the pilot study on the development of e-file management module which was administered by the Presidents' Office Public Service Management and Good Governance in 2016. Central government ministries and local government authorities were provided with software and hardware which were essential for the system.

E-Office helps in building and reinforcing records and archives management and enhances the management of active digital records for government needs and business access and its usage. E-Office initiative aims at creating a platform based on the available information, ensuring ongoing access to digital records, enabling online access to sensitive government information contained in the confined government network. Moreover, the Government of Tanzania aims at reducing if not cutting down the use of papers on its operations (e-Office Management system user manual, 2019).

The first version of E-Office focused on the movements of files and documents with the aim to make the movement fully electronic and hence improve efficiency and accountability in the government operations, and simplify decision making process. The second version of E-Office included simplifying management of documents which used to be handled through government registries. Additional features in the second phase enabled the management and tracking of documents within the institution.

In the future, the aim is to create a government wide electronic document framework, which will cover the entire document life circle from creation to archiving. This framework will address many issues including movement of documents from one government entity to another, classification scheme, enforced retention and disposition schedules (e-Office Management system user manual, 2019).

E-Office system has four basic modules, (i) registry and file management, (ii) leave management, (iii) facility and resource booking, and (iv) document library. Modules can be accessed once a user has login into the system and there is difference on roles and access rights of users.

Government registry officers including Records Managements Assistants have roles and access rights to Create file, view all files, search files, access closed files, manage mails, register incoming and outgoing mails, access all closed mails and trace mails. Officers have roles and access rights to access mails assigned for action, access inbox which includes previous mails and copied mails and pass responsibilities to someone else within specific time. System administrators have roles and access rights to Assign/revoke roles to users, assign designation to system users and perform initial setup of the system for a particular organization. Lastly, Accounting Officers have roles and access rights to search file, preview and assign mails to different officers for action, access mails assigned to officers, access inbox, pass responsibilities to someone else within specific time (e-Office Management system user manual, 2019).

To be able to use e-Office Management System, a government entity should be connected to the Government network infrastructure, should have a capable and secure LAN with standard server room and standard hardware with standard specifications and all users should have email ID on the Government Mailing System (e-Office Management system user manual, 2019).

2.2.8 Information System Models

2.2.8.1 DE Lone and McLean (2003) Information Systems Success model (D&M IS Success Model)

It is a framework and a model for measuring the complex -dependent variable in Information Systems research. The update of D&M IS Success Model of 2003 was refined from D&M IS Success Model, which was firstly published in 1992. The update of the model is the result of changes of the role of Information Systems as well as Information Systems progress made throughout the decade. D&M IS Success Model outlines six dimensions of success which are interrelated.

The first dimension is Systems Quality which measures technical success of the system which includes the functionality of the system, the reliability of the system, the flexibility of the system, data quality, system portability, system integration as well as system importance. The second dimension is Information Quality which measures semantic success of the system which included the extent to which information provided is accurate, information timeliness, information completeness,

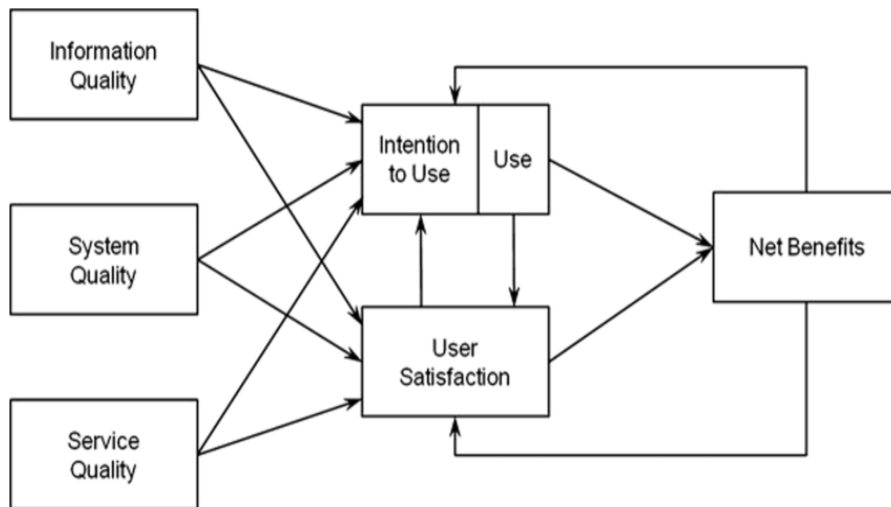
information relevance as well as information consistency. The third dimension is Service Quality which measures the extent to which service is tangible “up to date”, reliability of service “dependable”, the extent to which Information Systems employees give prompt service to users, the extent to which Information Systems employees have knowledge to do their job well as well as empathy “best interest at heart”.

The fourth dimension is Intention to use and use measures effectiveness success such as frequency of system use, time of use, a number of accesses to the system, nature of using the system, usage pattern and dependency to the system. The fifth dimension is User satisfaction which measures effectiveness success such as meeting users’ expectations as well as users’ satisfaction. The last dimension is Net Benefits which measure effectiveness success, including the extent to which the system improves job performance, the extent to which the system provides quality working environment, the extent to which the system facilitates decision making and whether the system is cost and time effective.

For D&M IS Success Model holds an argument that Information Systems are created first, then used and lastly the experience gained by using them (satisfactory or not satisfactory) influences users to continue using it or to reject it. On the other hand, D&M SI Success Model shows that there is the Causal relationship where by the

higher system quality is expected to lead to higher user satisfaction and use, which affects positively individual and organizational productivity.

Figure 1. DE Lone and McLean (2003) Model.



Source: DE Lone, W. H., & McLean, E. R. (2003). DE Lone and McLean Model of Information Systems Success: A ten-year update. *The Journal of Management Information Systems*.

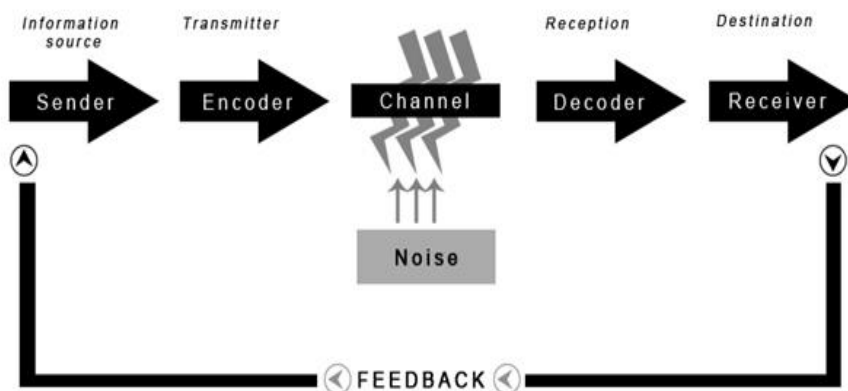
2.2.8.2 Shannon and Weaver Model of Communication

Claude Shannon and Warren Weaver model of communication which is explained in their book titled “The Mathematical Theory of Communication” of 1949 can be used to assess the communication effectiveness and efficiency. This model of communication is sometimes regarded as the mother of all models and was adopted

in the social sciences especially in the fields of communication sciences and organizational analysis.

Shannon and Weaver Model of Communication integrated concepts of information source, message, the transmitter, the signal, the channel, noise, the receiver, the probability of error, encoding, decoding, information rate channel and capacity. Shannon and Weaver Model of Communication also identified three levels of communications problems which are level A “*technical problem*” (How accurately can the symbols of communication be transmitted), level B “*semantic problem*” (conversion of precise meaning through symbols) and level C which is “*effectiveness problem*” (the effects of received meaning to intended people).

Figure 2. Shannon-Weaver’s Model of Communication. Source: Shannon, C and Weaver, W. (1964)



SHANNON-WEAVER’S MODEL OF COMMUNICATION

2.2.9 Theoretical frameworks for e-Government success

E-Government acceptance and success models can be divided into (a) Approaches related to the Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), Technology Acceptance Model (TAM), Unified Theory of Acceptance and Use of Technology (UTAUT) and (b) Diffusion of Innovation Theory (DOI) as discussed by Hofmann et al, (2012). The following is a summary of Technology Acceptance Model (TAM 2) and Diffusion of Innovation (DOI).

2.2.9.1 Technology Acceptance Model (TAM 2) Venkatesh and Davis (2000).

TAM 2 is used to explain computer usage behavior and determinants of computer acceptance which leads to explaining users' behavior across a broad range of end-user computing technologies (Lai, 2017). TAM 2 theorizes users' mental assessment of the match between important goals at work and the consequences of performing job tasks using the system serves as the basis for forming perceptions regarding the usefulness of the system (Venkatesh & Davis, 2000). The original TAM model included and tested two specific beliefs which are (i) Perceived usefulness (PU) - potential users' subjective likelihood that the use of a certain system will improve his action and (ii) Perceived ease of use (PEU) – degree to which the potential user expects the target system to be effortless.

TAM 2 incorporates additional theoretical constructs spanning social influence processes such as subjective norm, voluntariness and image and cognitive

instrumental processes such as job relevance, output quality, result demonstrability and perceived ease of use (Venkatesh & Davis, 2020). The summary of TAM 2 constructs is provided in table 2.6 below.

Social Influence Processes reflects the impacts of the three interrelated social forces impinging on an individual facing opportunity to adopt or reject a new system: subjective norm, voluntariness and Image.

1	Subjective Norm	Perception that most people who are important to him think he should or should not perform the behavior in question.
2	Voluntariness	The extent to which potential adopters perceive the adoption decision to be mandatory. Sometimes users are unwilling to comply with the mandates even when the system is perceived to be organizationally mandated.
3	Image	The degree to which use of innovation is perceived to enhance one's status in one social system.

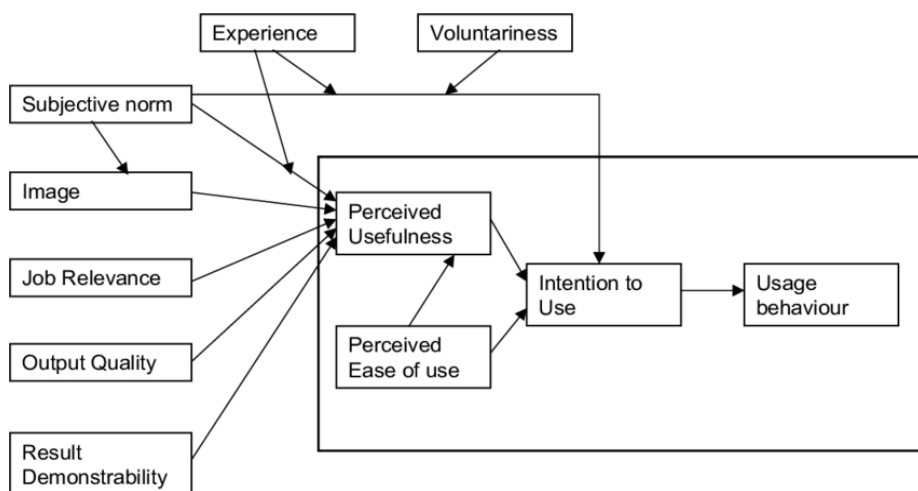
Cognitive Instrumental processes reflects that user's compare what a system is capable of doing with what they need to get done in their job. There are four

cognitive forces: job relevance, output quality, result demonstrability and perceived ease of use.

1	Job relevance	Individuals' perception regarding the degree to which the target system is applicable to his or her job.
2	Output Quality	How well the system performs tasks.
3	Result demonstrability	Tangibility of the results of using innovation.
4	The perceived ease of use	The less effortful a system is to use is significantly linked to intention, both directly and indirectly via its impact on perceived usefulness.

Table 2.6 Summary of TAM 2 constructs

Figure 3. Technology Acceptance Model (TAM 2) Source: Venkatesh and Davis (2000)



2.2.9.2 Diffusion of Innovation (DOI) by Everett Rodgers (1995).

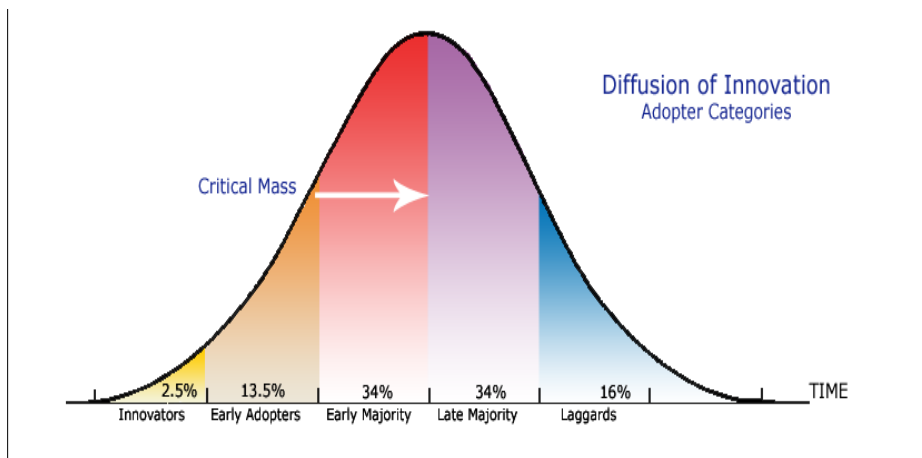
This theory tries to explain how new ideas can flow through communication channels over a period of time. DOI refers to the process of which occurs when people are adopting new ideas, practices, etc. The theory explains that at initial stages only few people will be open to the new idea, thus few will adopt and use it. As these early adopters spread the word more people will understand and adopt it which at last leads to the development. Rodgers (1995) distinguishes five categories of adopters of an innovation as shown in Table 2.7 below: -

SN	Category	Percent	Characteristics
1	Innovators	2.50%	Shortest adoption, Risk takers, appreciate technology, use complex technical knowledge, appreciate technology for its own sake, agents of change and recruit to be peer educators.
2	Early Adaptors	13.50%	Opinion leaders, role models within their social system, tester subjects to trial the innovation and they revolutionize competitive rules.
3	Early Majority	34%	Interact frequently with peers, comfortable with only evolutionary changes, do not like complexity, buy with a reference from trusted person, make steady progress.
4	Late Majority	34%	Respond to peer pressure, respond to economic necessity, often technological shy, very cost sensitive and rely on a single trusted advisor.

5	Laggards	16%	Isolated from opinion leaders, a point of reference is the way they have always done things, want to maintain the status quo. They think technology is hindrance to operations. They invest in technology if all other alternatives are worse.
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Table 2.7 A Summary of adaptor categories according to DOI.

Figure 4: Diffusion of Innovation: Adopter Categories. Source: Canadian Journal of Nursing Informatics.



Rodgers (1995) explains that the adaptation process involves five stages which are (i) Knowledge or awareness stage whereby a person is exposed to a certain innovation,

but he doesn't have enough information. (ii) Interest stage in which a person is attracted by innovation and starts to seek more information about it. (iii) Decision stage whereby a person tries to apply innovation on his context and makes a decision of trying it or not. (iv) A trial stage where by a person decided to make a use of innovation and lastly (v) Confirmation stage whereby a person decided to continue using such innovation.

2.3 E-Government users' satisfaction

E-Government services satisfaction is the dependent variable in this research. It will be measured by four independent variables and six control variables which are believed to have influence on E-Government services satisfaction. Four independent variables of this study are System Quality, Information Quality, System Quality and Security and Privacy. Six Control variables of the study are Gender, Age, level of education, working experience, frequency of using and job position.

2.3.1 Factors Influencing E-Government Users' Satisfaction

The aim of this research is to analyze factors influencing E-Government services satisfaction, specifically E-Office Management System users' satisfaction at the Judiciary of Tanzania. Various studies on E-Government have provided some factors which may influence e-government users' satisfaction.

For the purpose of this research, four factors influencing E-Government users' satisfaction are identified and discussed. Four factors which are believed to have influence on E-Government services satisfaction in this research are; (i) System Quality; (ii) Information Quality; (iii) Service Quality; and (iv) Security and Privacy. The following is the discussion for factors influencing E-Government services satisfaction; -

2.3.2 System Quality

System quality is the desirable characteristic of an Information system which includes flexibility of the system, reliability of the system, system ease of learning, inclusion of features of intuitiveness, system sophistication, system flexibility and system response times (Petter et al., 2008). System Quality measures functionality “the quality of being suited to serve the purpose well”, flexibility “the ability to be easily modified”, data quality “fit for intended uses in operations decision making and planning”, portability “the ability to be transferred from one system to another”, integration “one system to communicate with other systems” (De Lone & Mclean 2003, Yonazi & Boonsta, 2010; Mutangala, 2020; Ben Amor, 2021; Mukumbareza, 2014).

2.3.3 Information Quality

Information Quality is the desirable characteristic of the Information system outputs which is the management of reports and website pages, information relevance,

information understandability, information currency, information timeliness and information usability (Petter et al., 2008). Information Quality symbolizes timeliness “the speed to which information is received”, Appropriateness “suitability matching of receiver and information”, reliability, “if it is of any use”, accuracy “the correctness of the information” and Completeness “if information gives the complete picture or reality” (De Lone & Mclean 2003, Molefi & Radhamany, 2021; Mutangala, 2020; Yonazi 2013; Ben Amor, 2021).

2.3.4 Service Quality

Service quality refers to the support that system users receive from the Information System department and Information Technology personnel which includes timely responsiveness, accuracy and reliability, technical competence and empathy of Information Technology personnel staff as well (Petter et al., 2008). Service Quality measures up to date, reliability, responsiveness of Information System, giving support to users and assurance. It also refers to whether Information System employees have satisfactory knowledge to do their job well as well as empathy (De Lone & Mclean, 2003; Mutangala, 2020; Ben Amor, 2021; Mukumbareza, 2014).

2.3.5 Security and Privacy

Security and privacy are attributed with integrity, confidentiality, availability, accountability and privacy-preservability. These attributes must be free from the exploitation of attackers and threat models (Xiao et al., 2013). The protection of

personal information is very crucial and therefore it is important to ensure that there is Confidentiality, Availability and Integrity in E-Systems (Fernandez-Aleman et al., 2013). Under certain environments, E-Systems can face security and privacy risks such as data disclosure, data leakage, data loss and breaching of user privacy policies (Buyya, 2017).

E-Government developments must go hand in hand with securing data and information. Security and privacy should not be the basis for restriction of daily activities instead enhance safety from various threats (Alharbi et al., 2021). To enhance security and privacy have been a primary concern since governments started using E-Services (Moon et al., 2014). Security and Privacy measures the extent to which the services provided by the government electronically are safe and secure so that their privacy is well protected. It simply measures the extent to which personal information is kept away from various threats (De Lone & Mclean, 2003; Yonazi & Boonsta, 2010; Mutangala, 2020; Ben Amor, 2021).

2.4 Literature Review

Before conducting research on factors influencing e-Government services satisfaction, a literature review on related studies have been analyzed. Various researchers have written about E-Government users' satisfaction. Table 2.8 below presents a summary of 10 previous studies on E-Government. The studies which are summarized in Table 8 are Sichone and Mbamba (2021), Uchenna Nworah (2020),

Vinshath Weerakkody et al., (2014), Zubeida Khamis (2020), Yonazi, Sol & Boonstra (2010), Yonazi et al., (2010), Mutangala (2020), Mukumbareza (2014), Robert (2013) and Axelson & Melin (2014).

Author and Year	Findings
Sichone and Mbamba (2021)	<p>The article was published by the International Journal of Information, Business and Management, Vol 13 No. 3 of 2021.</p> <p>The article titled E-government service quality evaluation on Tax operations, a test of user satisfaction perception in Tanzania.</p> <p>Their findings show that service quality is a very important factor for users' satisfaction. Most users are concerned with the quality of service which is provided through E-Government.</p> <p>Privacy and Security also affects users' satisfaction therefore if users have fear on their privacy and security they will not use the service or they will not be satisfied.</p>
Uchenna and Nworah (2020).	<p>The article was published by the International Journal of Innovative Information Systems & Technology Research, Jan-Mar 2020.</p> <p>It has a title E-service quality dimensions and users' satisfaction with E-governance Service Portals.</p> <p>The study shows that e-service quality affects positively e-service users.</p> <p>The study suggests that e-service quality, trust and users' satisfaction are inseparable.</p> <p>Finally, the study shows that e-government services have improved the interaction of government and its people.</p>

Vinshath Weerakkody et al., (2014)	<p>The article published by International Journal of Electronic Government Research.</p> <p>It was a review of factors affecting user satisfaction in Electronic Government Services.</p> <p>The study shows that perceived usefulness, service quality, information quality, system quality as well as behavioral intention have a significant relationship with users' satisfaction.</p> <p>The study shows that the if the service provided is not of high quality, and if information provided is not accurate, and if people do not think that the system is useful to them, and if the system is not of high-quality then they will be dissatisfied.</p>
Zubeida Khamis (2020)	<p>The study was on Evaluation of user satisfaction of e-government in Tanzania: Case Study of Tanzania Revenue Authority</p> <p>The study shows that 83.4% of people are satisfied by using Tanzania Revenue Authority website.</p> <p>It further shows that the quality of a system has a strong influence on user satisfaction.</p> <p>Lastly, the TRA website has high quality to satisfy its users and due to that satisfaction, intention to use has been developed.</p>
Yonazi, Sol & Boonstra (2010)	<p>They studied about issues which are potential for adoption of e-government by citizens in Tanzania.</p> <p>They found that organizational and citizens preparedness are very important for e-Government adoption.</p> <p>Other factors which are important for e-Government adoption were services intrinsic issues, adequacy of access infrastructure and organizational context.</p>
Yonazi et al., (2010)	<p>They explored issues undelaying Citizen's Adoption of E-Government Initiatives in Developing Countries.</p>

The results show that the nature of organization and its business activities may have an impact on citizen's adoption of its electronic services.

For instance, on Tanzania Revenue Authority (TRA) portal, they found that due to the culture of tax evasion people prefers to obtain services relates with tax collection in person.

The issue of TRA portal is different from other portals such as that used by National Examination Council of Tanzania (NECTA) where users voluntarily register themselves.

Mutangala (2020)	<p>Studied about Users satisfaction from E-Government Services in the Democratic Republic of Congo.</p> <p>Results show that awareness, accessibility, service quality and information quality have strong influence to e-Government users' satisfaction in Congo.</p> <p>Findings shows that citizens must be aware of the existence of - Government systems.</p> <p>There must be access to Information and Communication Technologies infrastructures.</p> <p>There is a need for affordable internet costs, the service must be delivered timely and without bias as well.</p> <p>Lastly, the information provided though e-Government must be of high quality.</p>
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Mukumbareza (2014)	<p>Studied about citizen satisfaction with the quality of e-government information services provided by Southern Africa Development Community governments.</p> <p>The results show that that perceived quality of e-system is the major influence towards citizen's satisfaction with e-government.</p>
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Other factors are the way the governments handle citizen complaints electronically.

Moreover, the emphasis was on improvement of mechanisms for handling complaints in the Southern Africa Development Countries (SADC).

This study shows that there is no direct relationship between citizen's expectations and satisfaction.

Robert (2013)	Studied about Adoption of Electronic Government in Tanzania: Opportunities and Obstacles. The results show that increased transparency and speed in provision of services have led to e-government users' satisfaction in Tanzania. Integration of services and provision of a wide range of choices creates opportunities as well. Furthermore, the study shows that some Government staff are unwilling to adopt e-government. Lastly, there is poor network connectivity and limited access to Information and Communication Technologies facilities.
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Axelson & Melin (2014)	On their paper about Electronic Government, which was presented on 13 th IFIP WG 8.5 International Conference on Electronic Government. They analyze Contextual factors influencing health Information systems in Public Sector. Their study shows that top management commitment, linkage to business, technical alignment, knowledgeable personnel and user involvement have a critical role to play on e-Government. Furthermore, Users must be engaged in a suitable way.
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Table 2.8 A Summary of previous studies

2.5 Gap Analysis

Some researchers who have conducted studies on various areas of the e-Government sector focused mostly on Government to Citizens and Government to Business systems. This study specifically aims to reduce the existing gap on Government to Government (G2G) E-Systems users' satisfaction literatures, and to measure the extent to which users' expectations have been met by Government-to-Government E-Systems (e-Office Management System).

In this chapter of Theoretical Background and Literature Review we have seen the theoretical background of e-Government, a synopsis of e-Government, failures and success factors for e-Government and a modified comparison level theory. We have seen some definitions of e-Government and frameworks for e-government success and satisfaction of information systems such as Technology Acceptance Model II and Diffusion of Innovation (DOI). Moreover, we have seen e-Government Development stages according to UN-ASPA and Gartner's Four Phases.

The chapter has analyzed the current situation of e-Government and functions of e-Government in Tanzania as well. We have also seen e-Office Management system, advantages of e-Government implementation and challenges of e-Government in Tanzania. Lastly, we have seen two information system models according to De Lone and McLean, previous studies on e-Government and gap analysis. The next chapter is Research methodology.

CHAPTER 3. RESEARCH METHODOLOGY

3.1 Research design

This study adopts quantitative and explanatory research design to determine main factors influencing e-Office Management System users' satisfaction at the Judiciary of Tanzania. The study will measure different factors thought to influence e-government users' satisfaction basing on e-Office Management System. E-Office Management system is supervised by E-Government Agency (e-GA) and used by a number of Government ministries, institutions and independent departments in Tanzania. A stratified sample of 125 is proposed from 151 users of e-Office Management at the Judiciary of Tanzania. The users of e-Office Management at the Judiciary of Tanzania are divided into three main groups; (i) Management team: (ii) Officers; and (iii) Records Management Assistants.

A well developed, pre-tested survey questionnaire will be sent in form of **Google form** to selected respondents. If a number of responses will not be enough then phone interviews will be adopted in this study. Data collected will be analyzed by using descriptive statistics (number, maximum, minimum, mean, sum, and standard deviation) and inferential statistics (Correlation, regression and analysis of variance) through IBM SPSS Statistics software. Visualization will be made through the same software and interpretation will base on the findings from primary and secondary sources.

3.2 Analytical framework

The purpose of this research is to analyze factors influencing e-Government services satisfaction. To be able to achieve the goal, one dependent variable, four independent variables and six control variables were identified. The dependent variable is User satisfaction, independent variables are System Quality, Information Quality, Service Quality and Security and Privacy. Lastly the control variables for this research are gender, working experience, age, the level of education, frequency of use and job position. Figure 5 shows the analytical framework for this research: -

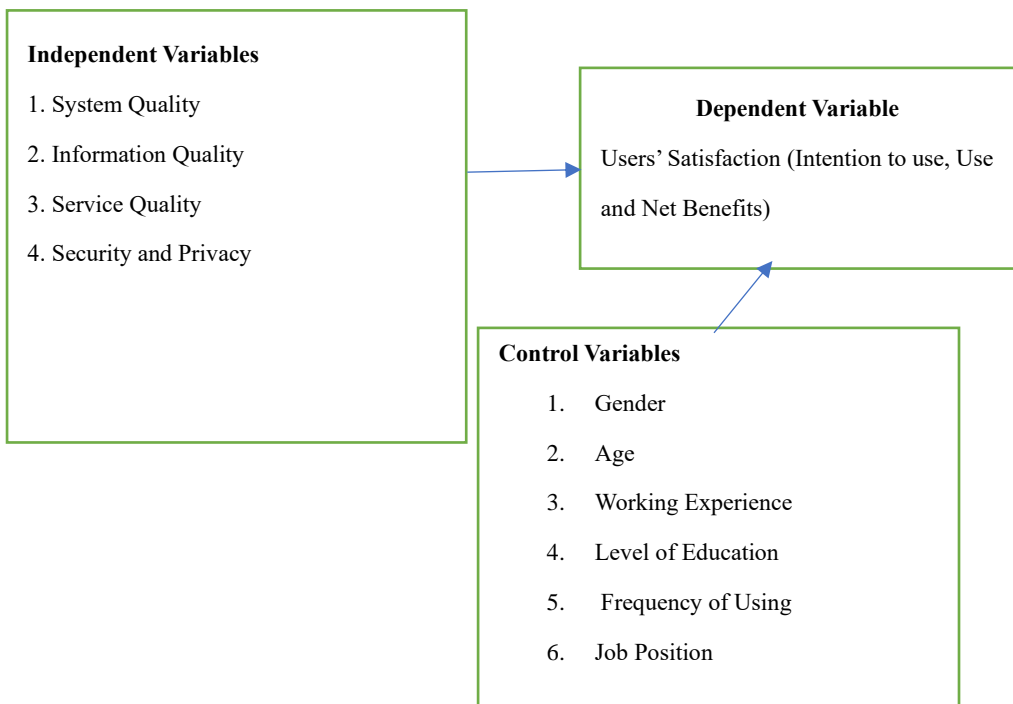


Figure 5: Illustration of Independent, dependent and control Variables of this study.

The following is the proposed Linear regression model for E-Office Management

System users' satisfaction with Control Variables;

$$\text{Judiciary of Tanzania e-Office Management System Users' Satisfaction} = \beta_0 + \beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5 + \beta_6 + \beta_7 + \beta_8 + \beta_9 + \beta_{10} + e$$

Where;

β_0 = Intercept of the regression line.

β_1 = Partial regression coefficient of System Quality.

β_2 = Partial regression coefficient of Information Quality.

β_3 = Partial regression coefficient of Service Quality.

β_4 = Partial regression coefficient of Security and Privacy.

β_5 = Partial regression coefficient of gender.

β_6 = Partial regression coefficient of age.

β_7 = Partial regression coefficient of Working Experience.

β_8 = Partial regression coefficient of the level of education.

β_9 = Partial regression coefficient of the frequency of using.

β_{10} = Partial regression coefficient of the job position.

e = Error in the regression.

3.3 Research Hypotheses

In this research there are four independent variables from which four Research Hypothesis have been formulated. The following part discusses factors influencing e-Government services satisfaction and research hypothesis to be tested in this research.

The factors to be discussed are system quality and E-Government services satisfaction, Information quality and E-Government services satisfaction, service quality and E-Government services satisfaction, and Security and Privacy and E-Government services satisfaction.

3.3.1 System Quality and E-Office Management System Satisfaction

System quality is the desirable characteristic of an Information system which includes flexibility of the system, reliability of the system, system ease of learning, inclusion of features of intuitiveness, system sophistication, system flexibility and system response times (Petter et al., 2008). System Quality measures functionality “the quality of being suited to serve the purpose well”, flexibility “the ability to be easily modified”, data quality “fit for intended uses in operations decision making and planning”, portability “the ability to be transferred from one system to another”, integration “one system to communicate with other systems” (De Lone & Mclean 2003, Yonazi & Boonsta, 2010; Mutangala, 2020; Ben Amor, 2021; Mukumbareza, 2014).

For the purpose of this study and basing on the literature above, System Quality variable measures the extent to which high system quality of E-Office in terms of ease of use, accessibility, design and integration with other E-Systems available in Tanzania influences E-Government Services users’ satisfaction. Therefore, we have the following hypothesis: -

<i>HYPOTHESIS 1</i>	<i>H₁</i>	<i>System quality positively influences E-Office Management system users' satisfaction.</i>
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3.3.2 Information Quality and E-Office Management System

Satisfaction

Information Quality is the desirable characteristic of the Information system outputs which is the management of reports and website pages, information relevance, information understandability, information currency, information timeliness and information usability (Petter et al., 2008). Information Quality symbolizes timeliness “the speed to which information is received”, Appropriateness “suitability matching of receiver and information”, reliability, “if it is of any use”, accuracy “the correctness of the information” and Completeness “if information gives the complete picture or reality” (De Lone & Mclean 2003, Molefi & Radhamany, 2021; Mutangala, 2020: Yonazi 2013; Ben Amor, 2021).

For the purpose of this study and basing on the literature above, Information Quality variable measures the extent to which high information quality provided by E-Office in terms of accuracy, reliability and currency (up to date) influences E-Government Services users' satisfaction. Therefore, we have the following hypothesis: -

<i>HYPOTHESIS 2</i>	<i>H₂</i>	<i>Information Quality positively influences e-Office Management system users' satisfaction.</i>
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3.3.3 Service Quality and E-Office Management System Satisfaction

Service quality refers to the support that system users receive from the Information System department and Information Technology personnel which includes timely responsiveness, accuracy and reliability, technical competence and empathy of Information Technology personnel staff as well (Petter et al., 2008). Service Quality measures up to date, reliability, responsiveness of Information System, giving support to users and assurance. It also refers to whether Information System employees have satisfactory knowledge to do their job well as well as empathy (De Lone & Mclean, 2003; Mutangala, 2020; Ben Amor, 2021; Mukumbareza, 2014).

For the purpose of this study and basing on the literature above, Service Quality variable measures the extent to which high service quality of E-Office in terms of simplifying tasks, simplified interaction, accessibility and timely assistance to E-Office users influences E-Government Services users' satisfaction. Therefore, we have the following hypothesis: -

<i>HYPOTHESIS 3</i>	<i>H₃</i>	<i>H₃ Service quality positively influences e-Office Management system users' satisfaction.</i>
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3.3.4 Security, Privacy and E-Office Management System Satisfaction

Security and privacy are attributed with integrity, confidentiality, availability, accountability and privacy-preservability. These attributes must be free from the exploitation of attackers and threat models (Xiao et al., 2013). The protection of

personal information is very crucial and therefore it is important to ensure that there is Confidentiality, Availability and Integrity in E-Systems (Fernandez-Aleman et al., 2013). Under certain environments, E-Systems can face security and privacy risks such as data disclosure, data leakage, data loss and breaching of user privacy policies (Buyya, 2017).

E-Government developments must go hand in hand with securing data and information. Security and privacy should not be the basis for restriction of daily activities instead enhance safety from various threats (Alharbi et al., 2021). To enhance security and privacy have been a primary concern since governments started using E-Services (Moon et al., 2014). Security and Privacy measures the extent to which the services provided by the government electronically are safe and secure so that their privacy is well protected. It simply measures the extent to which personal information is kept away from various threats (De Lone & Mclean, 2003; Yonazi & Boonsta, 2010; Mutangala, 2020; Ben Amor, 2021).

For the purpose of this study and basing on the literature above, Security and Privacy variable measures the extent to which the presence of high security and privacy in terms of data safety, confidentiality and data protection influences E-Government services users' satisfaction. Therefore, we have the following hypothesis: -

<i>HYPOTHESIS 4</i>	<i>H₄</i>	<i>Security and privacy positively influence e-Office Management system users' satisfaction.</i>
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3.4 Conceptualization and Operationalization

Conceptualizing all variables to be used in this research is very important since through conceptualization, variables can be measured. The following discussion provides a summary from previous literature and how the concepts are conceptualized for the purposes of this study. The discussion provides light on important concepts for this research which are E-Government Services satisfaction, system quality, information quality, service quality Security and Privacy, working experience, gender, age, frequency of use, job position and the level of education.

3.4.1 E-Government Services Satisfaction

E-Government Services satisfaction is the dependent variable for this study. Qimei et al., (2008) argues that e-service satisfaction is the user satisfaction with electronic environment. It encourages repeated use of a certain site. E-service satisfaction is likely to be driven by website characteristics, and service features (Bansal et al., 2004). For the purposes of this study, e-services satisfaction means the end positive results which can be achieved by the Judiciary of Tanzania employees, specifically for E-Office users as the result of the positive influence of E-Office Management system-system quality, information quality, service quality, security and privacy as well.

3.4.2 System Quality

System quality is an independent variable for this study. It is the desirable characteristic of an Information system which includes flexibility of the system,

reliability of the system, system ease of learning, inclusion of features of intuitiveness, system sophistication, system flexibility and system response times (Petter et al., 2008). For the purposes of this study, system quality means the perception that the Judiciary of Tanzania employees have on E-Office, regarding with system quality and its influence on E-Government Services satisfaction.

3.4.3 Information Quality

Information Quality is an independent variable for this study. It is the desirable characteristic of the Information system outputs which is the management of reports and website pages, information relevance, information understandability, information currency, information timeliness and information usability (Petter et al., 2008). For the purposes of this study, information quality means the perception that the Judiciary of Tanzania employees have on E-Office, regarding with information quality and its influence on E-Government Services satisfaction.

3.4.4 Service Quality

Service quality is an independent variable for this study. It refers to the support that system users receive from the Information System department and Information Technology personnel which includes timely responsiveness, accuracy and reliability, technical competence and empathy of Information Technology personnel staff as well (Petter et al., 2008). For the purposes of this study, service quality means the

perception that the Judiciary of Tanzania employees have on E-Office, regarding with the service quality and its influence on E-Government Services satisfaction.

3.4.5 Security and Privacy

Security and privacy is an independent variable for this study. It is attributed with integrity, confidentiality, availability, accountability and privacy-preservability. These attributes must be free from the exploitation of attackers and threat models (Xiao et al., 2013). The protection of personal information is very crucial and therefore it is important to ensure that there is Confidentiality, Availability and Integrity in E-Systems (Fernandez-Aleman et al., 2013). For the purposes of this study, security and privacy means the perception that the Judiciary of Tanzania employees have on E-Office, regarding with the protection of personal and official information in E-Office and its influence on E-Government Services satisfaction.

3.4.6 Gender

Gender is the control variable for this study. Gender can simply be defined as the either of the two sexes (male and female) especially when considered with reference to social and cultural differences (Oxford Dictionary). To ensure gender equality e-Government projects need to start with gender analysis so as to avoid women marginalization since in most cases women lack internet access, skills and interest (Boran et al., 2010). For the purpose of this study, gender is divided into two categories as defined above, male and female.

3.4.7 Working Experience

Working experience is the control variable for this study. It is the period spent in a workplace by employees. For the purposes of this study, Judiciary of Tanzania employees working experience will be divided into four categories as follows; (i) 0-11 months -probationary service; (ii) 1-5 year – lower confirmed service; (iii) 6-10 years – middle confirmed service; (iv) More than 11 years working experience.

3.4.8 Age

Age is the control variable for this study. It simply means the length of time that a person has lived (Oxford Dictionary). For the purposes of this study, Judiciary of Tanzania employees are categories will be as follows; (i) 18-25; (ii) 26-40; (iii)41-65. The minimum age is 18 years old where by a person cannot be employed below that age and the maximum age is 65 which is the compulsory retirement age in Tanzania.

3.4.9 Level of Education

Level of education is the control variable for this study. It simply means the progression from elementary to more complicated learning experience, embracing all fields and program groups that may occur at that particular stage of the progression (Statistical Portal). For the purposes of this study, there are following categories; (i) Primary/Secondary education; (ii) Certificate/Diploma; (iii) Advanced Diploma/First Degree/Master’s degree/Ph.D.

3.4.10 Job Position

Job position is the control variable for this study. It simply means the position and tasks to be accomplished in accordance with the employer-employee contract. In this study, Job position was categorized into three, first management level which is the top level for the Judiciary of Tanzania. The second one is Officers level which is the mid-level and the last one is Assistants level which is the bottom level. All three level are important since every level play important role in e-Office Management System.

3.4.11 Frequency of Using

Frequency of Using is the last control variable for this study. Frequency of Using measures the number of using e-Office Management System. For the purposes of this study, frequency of use was divided into three groups which are everyday use, once or twice a week use and occasionally use.

3.5 Measurement and Data Sources

In this research, the survey questionnaire is designed in such a way that it can measure variables of the study. The E-Government users' satisfaction which is dependent variable of the study will be measured by four independent variables and six control variables as well. Four independent variables in this research are; (i) System Quality; (ii) Information Quality; (iii) Service Quality; and (iv) Security and Privacy. Control variables to be used are; (i) Gender; (ii) Working Experience; (iii) Age; (iv) Level of Education; (v) Frequency of Using; and (vi) Job Position.

The survey questionnaire is designed into three sections. The first section is designed to measure general e-Office Management system users' satisfaction, the second section measures factors influencing e-services satisfaction and the last intends to collect demographic information which will be used as control variables for this research. The first section has four (4) short questions developed in a five-point Likert Scale, the second section has sixteen (16) short questions developed in a five points Likert Scale and the last section has six (6) questions, one question for each control variable.

3.5.1 Survey Questionnaire

As it has been explained in Measurement and Data Sources (3.5 above), the questionnaire to be used has three main sections aiming to collect data fit for this study. The first section is about general satisfaction with (dependent variable) e-Office management System, the second section is about independent variables and their influence to dependent variable while the last section collects demographic data of respondents. Demographic data collected to some will be used as control variables of this study (Survey Questionnaire is attached as Appendix 1).

3.6 Sampling and Data Collection

Since the purpose of this research is to determine factors influencing E-Government Services satisfaction by taking into consideration the case study of E-Office Management System at the Judiciary of Tanzania, important issues in research such

as the population of the study, sampling frame, sample and sample size, sampling method, survey instrument and data collection must be highly kept into consideration. In this part, the plan for making sure that those important issues are well addressed is elaborated step by step.

3.6.1 Population of the Study

The main purpose of this study is to analyze factors influencing E-Government users' satisfaction: the case study of e-Office Management System at the Judiciary of Tanzania. The population to be studied is therefore employees of the Judiciary of Tanzania who have been given access for using E-Office Management System (e-Office) for the daily operations of the government activities.

3.6.2 Sampling Frame

Employees of the Judiciary of Tanzania who have access to e-Office are the sampling frame for this research. The sampling frame is having a total number of 151 Judiciary employees who are; (i) members of the management; (ii) Officers; and (iii) Records Management Officers. Therefore, the sampling frame is 151 Judiciary of Tanzania employees who have access to E-Office Management System (E-Office).

3.6.3 Sample to be studied

According to Conventional approach Krejcie and Morgan (1970), the sample size for this study is 125 respondents at 5% margin error, 95% confidence level and 50%

response rate. Stratified random sample is selected from the sampling frame for the purposes of being studied in this research.

3.6.4 Sampling Method

Stratified random sampling method will be used in this study to determine the sample. The method will be employed in order to accommodate the population to be studied which is heterogeneous (Singh, 2014). The population to be studied is divided into three main groups which are; (i) members of the management; (ii) Officers; and (iii) Assistants (Records Management Assistants).

3.6.5 Survey Instrument

A survey questionnaire which has three parts namely (i) general e-Office Management System users' satisfaction (ii) factors influencing E-Office Management System users' satisfaction; and (iii) demographic information will be used. The first part will measure general e-services satisfaction on using e-government services. The second part will be used for the purposes of the present study where by factors influencing E-Office satisfaction will be tested and the last part is specifically for gathering participants' demographic information especially gender, age, working experience, frequency of using, job position and level of education.

The e-service satisfaction and factors influencing e-Office satisfaction part will consist of questions designed in five-point Likert scale. Scale options will range from 1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree.

The questionnaire will be tested more than once so as to reduce errors and will be sent to selected participants through google forms. After sending questionnaires to participants who have been selected from the sampling process, when necessary, follow-up through phone calls will be considered so as to achieve satisfactory feedback. Respondents will be encouraged to respond to the questions sent to them through their emails which are available in the Judiciary mailing system.

Generally, the survey questionnaire will carry questions which seeks to study and understand factors influencing e-Office Management System users' satisfaction. Those questions will provide information on general e-government services satisfaction, system quality, information quality, service quality, Security and Privacy, gender, age, working experience, level of education, frequency of using and job position.

3.6.6 Data Collection

Primary data will be collected by using a survey questionnaire which will be sent to all participants through google forms. The addresses of participants are available on the Judiciary mailing system which can be accessed at any time. If the response will not be enough for this study, phone interview will be considered since it is an effective way of reaching participants. Secondary data will be obtained from previous studies which has been conducted on the e-Government field.

3.7 Data Processing and Data Analysis

Data collected from the Judiciary of Tanzania employees who have access to E-Office will be analyzed by using descriptive statistics (mean, percentage, frequency and range) and inferential statistics (Correlation, regression and analysis of variance) through IBM SPSS Statistics. Visualization will be made through the same software and interpretation will base on the findings from primary and secondary sources. Demographic categories and factors influencing e-Office users' satisfaction will be analyzed and Hypotheses will be tested.

3.8 Reliability and Validity

To ensure reliability and validity of this study, the survey questionnaire developed is good enough to test all four Hypotheses of this study. The pretesting of the survey instrument is another reason without neglecting the role of respondent's consent for this study.

In this chapter we have seen the research design, analytical framework, research hypotheses, conceptualization and operationalization, measurement and data sources, sampling procedures (population of the study, sampling frame, sample and sample size and sampling method) and data collection as well. Moreover, we have seen the survey instrument and questions intended to be used in the survey questionnaire, data processing, data analysis reliability and validity of the measures to be used in this research. Next chapters will be Presentation, Analysis and discussion of findings.

CHAPTER 4. PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

This chapter is the complementary of the Research Methodology chapter. It provides the presentation of data, analysis of results, and discussion of findings. In summary, the survey questionnaire was sent to 125 sample, but only 112 responded. Therefore, this chapter will provide the presentation, analysis and discussion of results following the data collected from 112 respondents regarding the study titled “an analysis of E-Government users’ satisfaction in Tanzania”.

4.1 Response Rate

Response rate in the study is calculated into percentage by taking into consideration the number of respondents and the sample size.

$$\text{Response Rate} = \left(\frac{\text{Number of respondents}}{\text{Number of Distributed questionnaires}} \right) 100$$

Whereas the Number of Respondents =112

And the number of distributed questionnaires =125

$$\text{Therefore, Response Rate} = \left(\frac{112}{125} \right) 100 \quad \text{Therefore Response Rate} = 89\%$$

Since the response rate in this study of E-Government Services Satisfaction: The case study of E-Office Management System at the Judiciary of Tanzania is 89%, it means that there is higher amount of data quality and data accuracy regarding to the factors influencing users’ satisfaction, there is enough representation of the Judiciary of

Tanzania employees who use E-Office Management system and lastly. The sample can be considered as valid for the study

4.2 Reliability Statistics

The internal consistency of this study is Excellent since it is greater than 0.85 as shown in table 4.1 below.

Cronbach's Alpha	N of Items
0.855	5

Table 4.1: Cronbach's Alpha Source: SPSS 2022, Author

4.3. Respondents Demographic Characteristics

The total number of respondents in this study of an Analysis of E-Government services users' satisfaction: The Case study of E-Office Management System at the Judiciary of Tanzania is 112. There were 37 female respondents and 75 male respondents equivalent to 33% and 67% respectively. Regarding the age of respondents, 4 respondents belong to age group 18-25, 98 respondents belong to age group 26-40 and 10 respondents belong to age group 41-65. There were no respondents below 18 and above 65 which is the compulsory employment and retirement age for public servants in Tanzania.

Regarding Working Experience, 28 respondents have been working for 1-5 years, 70 respondents have been working for 6-10 years and 14 respondents have been working for more than 11 years. There were no respondents who are in probationary period (0-11 months). Regarding the level of education, 18 respondents have Primary/Secondary Education, 28 respondents have Certificates/Diplomas and 66 respondents have Advanced Diploma/Bachelor degree/Master's degree/Ph.D.

Regarding the frequency of use of E-Office Management System, 75 respondents use e-Office every day, 23 respondents use e-Office once or twice a week while 14 respondents use e-Office occasionally. Regarding the Job Level (position), 12 respondents belong to the management, 54 respondents belong to Officer Cadres while 46 respondents belong to the Assistant cadres.

These six demographic characteristics are used as control variables of this study. The aim is to analyze if gender, age, level of education, working experience, frequency of using and job position have influence on e-Government users' satisfaction at the Judiciary of Tanzania.

Table 4.2 below shows the frequency of respondents' characteristics in terms of gender, age, working experience, level of education, frequency of use and job level.

Variable	Category	Frequency	Percent	Cumulative Percent
Gender	Female	37	33	33
	Male	75	67	100
Age	18-25	4	3.6	3.6
	26-40	98	87.5	91.1
	41-65	10	8.9	100
Working Experience	1-5 years	28	25	25
	6-10 years	70	62.5	87.5
	More than 11 years	14	12.5	100
Level of Education	Primary/Secondary School	18	16.1	16.1
	Certificate/Diploma	28	25	41.1
	Adv Diploma /Deg /Masters /Ph.D.	66	58.9	100
Frequency of using	Everyday	75	67	67
	Once or twice a week	23	20.5	87.5
	Occasionally	14	12.5	100
Job Position	Management	12	10.7	10.7
	Officers	54	48.2	58.9
	Assistants	46	41.1	100

Table 4.2 Respondents Characteristics

Source: SPSS 2022, Author

4.4 Descriptive Statistics

Descriptive statistics has been used to describe the main features of data in this study of E-Government services satisfaction: The Case study of E-Office Management system at the Judiciary of Tanzania. Table 4.3 below provides the summary of range, minimum, maximum, mean and standard deviation of data in this study. One dependent variable and four independent variables have been considered.

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
General satisfaction	112	1.00	5.00	461.00	4.1161	1.01116
System Quality	112	1.00	5.00	422.00	3.7679	0.78249
Information Quality	112	1.00	5.00	436.00	3.8929	0.83134
Service Quality	112	1.00	5.00	415.00	3.7054	0.79001
Security and Privacy	112	1.00	5.00	414.00	3.6964	0.92842

Table 4.3 Descriptive Statistics

Source: SPSS 2022, Author

Descriptive statistics in table 4.3 above shows that the satisfaction with E-Office management system at the Judiciary of Tanzania is higher. The mean value for general satisfaction with E-Office Management System is 4.1161 in a scale of 5 (where by 5 means strongly agree and 1 means strongly disagree). This mean value reflects that the employees of the Judiciary of Tanzania are highly satisfied with the E-Government services offered to them through the E-Office Management System. Regarding independent variables of this study, Information Quality has the highest mean value of 3.8929 while Security and Privacy has the lowest mean value of 3.6964. Other independent variables System Quality which has the mean value of 3.7679 and Service Quality with the mean value of 3.7054. Basing on descriptive statistics, Information Quality and System Quality have higher mean value compared to Service Quality and Security and Privacy.

4.5 Demographic categories in comparison with Dependent and Independent Variables

Demographic categories were compared with dependent and independent variables in order to see the relationship of every demographic category with variables. In this case, gender, age, level of education, working experience, frequency of using and job position were compared with general users' satisfaction, system quality, information quality, service quality and security and privacy.

4.5.1 Demographic categories in comparison with E-Office Management System users' satisfaction

The study found that male respondents who are using E-Office management system have a mean value of 4.1733 of satisfaction compared to female respondents who have a mean value of 4.0 satisfaction. Respondents aged between 26-40 years old scored a mean value of 4.1224 while respondents aged between 41-65 and 18-25 scored a mean value of 4.1 and 4.0 respectively.

Respondents with more than 11 years of working experience scored a mean value satisfaction of 4.2143 while respondents with 1-5 years and 6-10 years scored a mean value of 4.1786 and 4.0714 respectively. On the other way, respondents who have certificates and diplomas scored a mean value of 4.1786, respondents with primary and secondary school education scored a mean value of 4.1667 and respondents with Advanced diplomas, degrees, masters degrees and Ph.D. scored a mean value of

4.0758. Respondents who use E-Office management system occasionally scored a mean value of 4.5714, those who use once or twice a week scored a mean value of 4.4348 and those who use it every day scored a mean value of 3.9333. Lastly, respondents who belong to Assistant cadres scored a mean satisfaction value of 4.1739, Officers scored a mean value of 4.1111 while managers scored a mean value of 3.9167. Table 4.4 below provides the summary of comparison between demographic categories and e-Office Management system users satisfaction.

Variable	Category	Mean	N	Std. Deviation
Gender	Female	4.0000	37	1.08012
	Male	4.1733	75	0.97777
Age	18-25 years	4.0000	4	1.15470
	26-40 years	4.1224	98	1.02811
	41-65 years	4.1000	10	0.87560
Working Experience	1-5 years	4.1786	28	1.02030
	6-10 years	4.0714	70	1.04009
	More than 11 years	4.2143	14	0.89258
Level of Education	Primary/Secondary	4.1667	18	0.78591
	Certificate/Diploma	4.1786	28	1.09048
	Adv Dip/Deg/ Mas/ Ph.D.	4.0758	66	1.04234
Frequency of using	Everyday	3.9333	75	1.06965
	Once or twice a week	4.4348	23	0.89575
	Occasionally	4.5714	14	0.51355
Job Position	Management	3.9167	12	1.31137
	Officers	4.1111	54	0.98415
	Assistants	4.1739	46	0.97307

Table 4.4 Demographic categories and E-Office users' satisfaction

4.5.2 Demographic categories in comparison with System Quality

The study found that male respondents have a mean value of 3.8400 while female respondents have a mean value of 3.6216 of satisfaction with system quality. Respondents aged between 26-40 years scored a mean value of 3.7857, respondents aged between 18-25 scored a mean value of 3.75 while respondents aged between 41-65 scored a mean value of 3.6. Respondents with 1-5 years of working experience scored a mean value of 3.9286 compared to respondents with working experience of 6-10 years and more than 11 years who scored 3.7143 each.

Moreover, respondents with primary and secondary school education scored a mean value of 3.7778, respondents with Advanced diplomas, degrees, masters degrees and Ph.D. scored a mean value of 3.7727 and respondents with certificates and diplomas scored a mean value of 3.75.

On the other hand, respondents who use E-Office occasionally scored a mean value of 3.9286, those who use once or twice a week scored a mean value of 3.9130 and those who use it everyday scores a mean value of 3.6933. Lastly, Officers scored a mean value of 3.8519, Assistants scored a mean value of 3.7609 while managers scored a mean value of 3.4167. Table 4.5 below provides a summary of comparison between demographic categories and satisfaction with system quality.

Variable	Category	Mean	N	Std. Deviation
Gender	Female	3.6216	37	0.82836
	Male	3.8400	75	0.75409
Age	18-25 years	3.7500	4	0.50000
	26-40 years	3.7857	98	0.81544
	41-65 years	3.6000	10	0.51640
Working Experience	1-5 years	3.9286	28	0.76636
	6-10 years	3.7143	70	0.83654
	More than 11 years	3.7143	14	0.46881
Level of Education	Primary/Secondary	3.7778	18	0.54832
	Certificate/Diploma	3.7500	28	0.84437
	Adv Dip/Deg/ Mas/ Ph.D.	3.7727	66	0.81892
Frequency of using	Everyday	3.6933	75	0.83784
	Once or twice a week	3.9130	23	0.66831
	Occasionally	3.9286	14	0.61573
Job Position	Management	3.4167	12	0.90034
	Officers	3.8519	54	0.78686
	Assistants	3.7609	46	0.73590

Table 4.5 Demographic categories and System Quality satisfaction

4.5.3 Demographic categories in comparison with Information Quality

The study found that female respondents have a mean value of 3.8267 compared to male respondents who have a mean value of 3.8267 of satisfaction with information quality. Respondents aged between 41-65 scored a mean value of 4.0, respondents aged between 26-60 scored a mean value of 3.8878 while respondents aged between 18-25 scored a mean value of 2.75. Respondents with working experience of 6-10 years scored a mean value of 3.8429, respondents with working experience of 1-10

years scored a mean value of 3.8214 and respondents with working experience of more than 11 years scored a mean value of 4.2857.

Moreover, respondents with primary and secondary education scored a mean value of 4.1111, those with Advanced diplomas/degrees/master's degrees/Ph.D. scored a mean value of 3.8636 and respondents with certificates and diplomas scored a mean value of 3.8214. Respondents who use E-Office system once or twice a week scored a mean value of 4.1739, those who use it occasionally scored a mean value of 4.0 while those who use it every day scored a mean value of 3.7867. Lastly, respondents whole belong to Assistant cadres scored a mean value of 3.9348, those who belong to management scored a mean value of 3.9167 while those who belong to Officers cadres scored a mean value of 3.8519.

Generally, Female employees scored higher mean value satisfaction of information quality compared to males, employees aged 41-65 scored higher mean value satisfaction of information quality compared to those aged between 18-25 and 26-40. Moreover, Employees with working experience of more than 11 years scored higher mean satisfaction of information quality compared to those with 10 years or less. Employees with Primary or Secondary education scored higher mean value of information quality compared to those with higher education. Employees who use e-Office occasionally scored higher mean value of information quality compared to those who use it regularly. Lastly, employees in lower position scored higher mean

value of information quality compared to those in middle and top positions. Table 4.6 below provides a summary of demographic categories in comparison with information quality satisfaction.

Variable	Category	Mean	N	Std. Deviation
Gender	Female	4.0270	37	0.95703
	Male	3.8267	75	0.76004
Age	18-25 years	3.7500	4	0.95743
	26-40 years	3.8878	98	0.84807
	41-65 years	4.0000	10	0.66667
Working Experience	1-5 years	3.8214	28	0.86297
	6-10 years	3.8429	70	0.86201
	More than 11 years	4.2857	14	0.46881
Level of Education	Primary/Secondary	4.1111	18	0.58298
	Certificate/Diploma	3.8214	28	0.98333
	Adv Dip/Deg/ Mas/ Ph.D.	3.8636	66	0.82063
Frequency of using	Everyday	3.7867	75	0.84299
	Once or twice a week	4.1739	23	0.83406
	Occasionally	4.0000	14	0.67937
Job Position	Management	3.9167	12	1.08362
	Officers	3.8519	54	0.76250
	Assistants	3.9348	46	0.85381

Table 4.6 Demographic categories and Information Quality satisfaction

4.5.4 Demographic categories in comparison with Service Quality

The study found that male respondents have a mean value of 3.7067 compared to female respondents who have a mean value of 3.7027 of satisfaction with service quality. Respondents aged between 18-25 years scored a mean value of 4.0, those

between 26-40 scored a mean value of 3.7143 while those aged between 41-65 scored a mean value of 3.5. Respondents with working experience of more than 11 years scored a mean value of 3.8571, those with working experience of 1-5 years scored a mean value of 3.7143 while those with working experience of 6-10 years scored a mean value of 3.6714.

Moreover, respondents having certificates and diplomas scored a mean value of 3.8571, those with primary and secondary education scored a mean value of 3.8333 and those with Advanced diploma/degree/master's degree/Ph.D. scored a mean value of 3.6061. Respondents who use E-Office system occasionally scored a mean value of 3.9286, those who use it once or twice a week scored a mean value of 3.8696 while everyday users scored a mean value of 3.6133. Lastly, respondents who belong in assistants' cadres scored a mean value of 3.8478, those who belong to Officers cadres scored a mean value of 3.6111 while those who belong to the management scored a mean value of 3.5833. Table 4.7 below provides a summary of demographic categories in comparison with service quality satisfaction.

Male employees scored higher mean value of service quality satisfaction compared to female employees. Respondents aged between 18-25 scored higher mean value of service quality satisfaction compared to older employees. Employees with more than 11 years working experience scored higher mean value of information quality compared to those with 10 years or less. Respondents with Certificates and Diplomas

scored higher mean value of service quality satisfaction compared to those with primary or secondary education and Advanced Diploma or Degree or Masters or Ph.D. Moreover, Respondents who use e-Office occasionally scored higher mean value of service quality satisfaction compared to those who use it regularly. Lastly, employees in lower posts scored higher mean value service quality satisfaction compared to those at the middle and at the top. Table 4.7 below provides a summary of demographic categories in comparison with service quality satisfaction.

Variable	Category	Mean	N	Std. Deviation
Gender	Female	3.7027	37	0.87765
	Male	3.7067	75	0.74929
Age	18-25 years	4.0000	4	0.81650
	26-40 years	3.7143	98	0.79948
	41-65 years	3.5000	10	0.70711
Working Experience	1-5 years	3.7143	28	0.80999
	6-10 years	3.6714	70	0.82920
	More than 11 years	3.8571	14	0.53452
Level of Education	Primary/Secondary	3.8333	18	0.61835
	Certificate/Diploma	3.8571	28	0.84828
	Adv Dip/Deg/ Mas/	3.6061	66	0.80151
	Ph.D.			
Frequency of using	Everyday	3.6133	75	0.85255
	Once or twice a week	3.8696	23	0.62554
	Occasionally	3.9286	14	0.61573
Job Position	Management	3.5833	12	0.99620
	Officers	3.6111	54	0.76273
	Assistants	3.8478	46	0.75916

Table 4.7 Demographic categories and Service Quality satisfaction

4.5.5 Demographic categories in comparison with Security and Privacy

The study found that male respondents have 3.7067 mean value compared to female respondents who have 3.6757 mean value of satisfaction with security and privacy. Respondents aged between 18-25 scored a mean value of 3.75, respondents aged between 26-40 scored a mean value of 3.7041 while respondents aged between 41-65 scored a mean value of 3.6. Respondents with working experience of 1-5 years and more than 11 years scored a mean value of 3.7857 while those with working experience of 6-10 years scored a mean value of 3.6429. Respondents with certificates and diplomas scored a mean value of 3.8929, those with primary and secondary education scored a mean value of 3.7222 while those with advanced diplomas/degree/master's degree/Ph.D. scored a mean value of 3.6061.

Moreover, respondents who use E-Office system occasionally scored a mean value of 4.0, those who use it once or twice a week scored a mean value of 3.9565 while those who use it every day scored a mean value of 3.5600. Lastly, respondents who belong to Assistants cadres scored a mean value of 3.8261, those who belong to Officers cadre scored a mean value of 3.6481 while those who belong to the management scored a mean value of 3.4167.

Male respondents scored higher mean value satisfaction of security and privacy satisfaction. Respondents aged between 18-25 scored higher mean value satisfaction of security and privacy compared to older respondents.

Respondents with working experience of 6-10 years have less satisfaction of security and privacy compared to those with 1-5 years and more than 11 years. Respondents with Certificates and Diplomas scored higher mean value of security and privacy satisfaction. Moreover, Respondents who use e-Office occasionally scored higher mean value of security and privacy satisfaction. Lastly, respondents in lower positions scored higher mean value satisfaction of security and privacy satisfaction. Table 4.8 below provides a summary of demographic categories in comparison with security and privacy satisfaction.

Variable	Category	Mean	N	Std. Deviation
Gender	Female	3.6757	37	1.05552
	Male	3.7067	75	0.86639
Age	18-25 years	3.7500	4	0.95743
	26-40 years	3.7041	98	0.93289
	41-65 years	3.6000	10	0.96609
Working Experience	1-5 years	3.7857	28	0.95674
	6-10 years	3.6429	70	0.94847
	More than 11 years	3.7857	14	0.80178
Level of Education	Primary/Secondary	3.7222	18	0.75190
	Certificate/Diploma	3.8929	28	0.95604
	Adv Dip/Deg/ Mas/ Ph.D.	3.6061	66	0.95883
Frequency of using	Everyday	3.5600	75	0.98968
	Once or twice a week	3.9565	23	0.76742
	Occasionally	4.0000	14	0.67937
Job Position	Management	3.4167	12	1.08362
	Officers	3.6481	54	0.93481
	Assistants	3.8261	46	0.87697

Table 4.8 Demographic categories and Security and Privacy satisfaction

4.6 Multicollinearity Analysis

Table 4.9 below shows the values of tolerance and VIF (Variance Inflation Factor), both are within the accepted range. All the tolerance values are greater than 0.1, and all VIF values are less than 10. According to table 4.9 Tolerance ranges from 0.253 to 0.922 while Variance Inflation Factor ranges from 1.084 to 3.950.

Variable	Collinearity Statistics	
	Tolerance	VIF
Gender	0.845	1.183
Age	0.877	1.140
Working experience	0.731	1.368
Level of Education	0.262	3.822
Frequency of using	0.922	1.084
Job Position	0.253	3.950
System Quality	0.614	1.630
Information Quality	0.591	1.691
Service Quality	0.431	2.321
Security and Privacy	0.450	2.222

Table 4.9 Multicollinearity

Source: SPSS 2022, Author

4.7 Correlation Analysis

Pearson Correlation analysis was performed on IBM SPSS Statistics to check statistical relationship/association of variables of the study. Gender, Age, Working Experience (WE), Level of education (Edu), Frequency of Use (Freq), job level (Level), E-Users' satisfaction (GES), system quality (SYQ), information quality (IFQ), service quality (SEQ) and security and privacy (SPQ), data were used when finding statistical relationship. The results are as shown in the table 4.10 below;

		Correlations										
		Gender	Age	WE	Edu	Freq	Level	GES	SYQ	IFQ	SEQ	SPQ
Gender	Pearson	1										
	Sig.											
Age	Pearson	0.108	1									
	Sig.	0.258										
WE	Pearson	0.012	.202*	1								
	Sig.	0.901	0.032									
Edu	Pearson	.274**	-0.019	-0.040	1							
	Sig.	0.003	0.839	0.679								
Freq	Pearson	-0.058	0.118	-0.055	0.019	1						
	Sig.	0.544	0.214	0.562	0.841							
Level	Pearson	-.197*	-0.110	-.245**	-.810**	-0.029	1					
	Sig.	0.037	0.246	0.009	0.000	0.764						
GES	Pearson	0.005	0.028	-0.102	0.036	.219*	0.069	1				
	Sig.	0.956	0.766	0.286	0.703	0.021	0.472					
SYQ	Pearson	-0.100	-0.115	-0.127	-0.095	0.022	0.131	0.087	1			
	Sig.	0.294	0.225	0.182	0.317	0.816	0.170	0.359				
IFQ	Pearson	-0.065	0.026	0.120	0.006	0.109	0.014	0.065	-0.034	1		
	Sig.	0.496	0.786	0.207	0.946	0.251	0.884	0.496	0.722			
SEQ	Pearson	-0.018	-0.077	-0.085	-0.013	0.126	0.086	.285**	0.171	0.180	1	
	Sig.	0.850	0.422	0.372	0.892	0.186	0.369	0.002	0.071	0.057		
SPQ	Pearson	-0.025	-0.099	-0.024	0.063	0.092	0.051	.262**	0.126	.364**	.425**	1
	Sig.	0.793	0.298	0.800	0.508	0.334	0.596	0.005	0.185	0.000	0.000	

** . Correlation is significant at the 0.01 level (2-tailed). * . Correlation is significant at the 0.05 level (2-

Table 4.10 Correlation Coefficients

Source: SPSS 2022, Author

4.7.1 As shown in the Table 4.10 above, there is a weak positive relationship between gender and the E-Office Management System users' satisfaction. The Pearson correlation is 0.005. The relationship between the gender and E-Office Management Users' System Satisfaction is insignificant at the p-value of 0.956.

4.7.2. As shown in Table 4.10 above, there is a weak positive relationship between age and the E-Office Management System users' satisfaction. The Pearson correlation is 0.028. The relationship between the age and E-Office Management System Users' Satisfaction is insignificant at the p-value of 0.766.

4.7.3. As shown in Table 4.10 above, there is a negative relationship between Working Experience and the E-Office Management System users' satisfaction. The Pearson correlation is -0.102. The relationship between the Working experience and E-Office Management System Users' Satisfaction is insignificant at the p-value of 0.286.

4.7.4. As shown in Table 4.10 above, there is a weak positive relationship between the level of Education and the E-Office Management System users' satisfaction. The Pearson correlation is 0.036. The relationship between the level of education and E-Office Management System Users' Satisfaction is insignificant at the p-value of 0.703.

4.7.5. As shown in Table 4.10 above, there is a weak positive relationship between the frequency of using E-Office Management system and the E-Office Management

System users' satisfaction. The Pearson correlation is 0.219. The relationship between the frequency of using and E-Office Management System Users' Satisfaction is significant at the p-value of 0.021.

4.7.6. As shown in Table 4.10 above, there is a weak positive relationship between the job position and the E-Office Management System users' satisfaction. The Pearson correlation is 0.069. The relationship between job position and E-Office Management System Users' Satisfaction is insignificant at the p-value of 0.472.

4.7.7. As shown in Table 4.10 above, there is a weak positive relationship between System Quality and the E-Office Management System users' satisfaction. The Pearson correlation is 0.087. The relationship between system quality and E-Office Management System Users' Satisfaction is insignificant at the p-value of 0.359.

4.7.8. As shown in Table 4.10 above, there is a weak positive relationship between Information Quality and the E-Office Management System users' satisfaction. The Pearson correlation is 0.065. The relationship between Information quality and E-Office Management System Users' Satisfaction is insignificant at the p-value of 0.496.

4.7.9. As shown in Table 4.10 above, there is a weak positive relationship between Service Quality and the E-Office Management System users' satisfaction. The

Pearson correlation is 0.285. The relationship between Service quality and E-Office Management System Users' Satisfaction is significant at the p-value of 0.002.

4.7.10. As shown in Table 4.10 above, there is a weak positive relationship between Security and Privacy and the E-Office Management System users' satisfaction. The Pearson correlation is 0.262. The relationship between Security and Privacy and E-Office Management System Users' Satisfaction is significant at the p value of 0.005. From the correlations above, it can be noted that gender, age, level of education, job position, system quality and information quality have weak positive insignificant association with E-Office Management system users' satisfaction. Moreover, frequency of using, service quality, security and privacy have weak positive significant relationship with E-Office Management System users' satisfaction. Lastly, Working experience has a negative insignificant relationship with E-Office Management system users' satisfaction.

4.8 Regression Analysis

In this study of E-government users' satisfaction, when computing regression all independent variables including control variables were entered. In this case, system quality, information quality, service quality, Security and Privacy, age, gender, level of education, working experience, frequency of using and job level were entered. The dependent variable is E-Office Management system users' satisfaction.

4.8.1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.735 ^a	0.541	0.495	0.71851

Table 4.11 Model Summary Source: SPSS 2022, Author

From the model summary above, Service Quality, Information Quality, System Quality, Security and Privacy, Gender, Age, Working Experience, Frequency of Using, Level of Education, Job Level (position) are accounted for 54.1% (0.541) variation in the E-Office Management System users' satisfaction. In other words, 54.1% variation in E-Office Management System users' satisfaction can be explained by Service Quality, Information Quality, System Quality, Security and Privacy, Gender, Age, Working Experience, Frequency of Using, Level of Education, Job Level (position)

4.8.2 ANOVA^a

The model used in this study of factors influencing E-Office Management system users' satisfaction at the Judiciary of Tanzania has more systematic variation than unsystematic variation. According to the table 4.12 below, the significance level is <.001.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	61.349	10	6.135	11.883	<0.001 ^b
	Residual	52.142	101	0.516		
	Total	113.491	111			

Table 4.12 ANOVA^a

Source: SPSS 2022, Author

4.8.3 Coefficients of multiple Regression

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	0.116	1.174		0.098	0.922
Gender	0.243	0.157	0.114	1.548	0.125
Age	-0.028	0.207	-0.010	-0.134	0.893
Working experience	-0.043	0.132	-0.026	-0.324	0.747
Level of Education	-0.014	0.176	-0.010	-0.078	0.938
Frequency of using	0.166	0.100	0.116	1.657	0.101
Job Position	0.002	0.207	0.002	0.011	0.991
System Quality	0.045	0.111	0.035	0.405	0.686
Information Quality	0.358	0.107	0.294	3.352	0.001
Service Quality	0.014	0.132	0.011	0.104	0.917
Security and Privacy	0.516	0.109	0.473	4.709	0.000

Table 4.13 Coefficients

Source: SPSS 2022, Author

4.9 HYPOTHESES TESTING

The objective of this research is to identify factors influencing e-Office Management users' satisfaction at the Judiciary of Tanzania. Four independent variables have been used to formulate four hypotheses for this study. The independent variables of this study are system quality, information quality, service quality and Security and Privacy while control variables of the study are gender, age, level of education, working experience, frequency of use and the job position. The following is the test results of all hypotheses of this study.

4.9.1. System Quality

H₁: System quality positively influence E-Office Management system users' satisfaction.

From the table 4.13 above, the t value for variable system quality is 0.405 and the significance value is 0.686. In this case the null hypothesis was not rejected and therefore the alternative hypothesis was not supported. The alternative hypothesis was not supported due to the reason that there is no enough evidence to conclude that there is positive effect existing between system quality and e-Office Management system users' satisfaction. Therefore, the results do not confirm if the system quality positively influences e-Office Management System users' satisfaction.

4.9.2 Information Quality

H₂: Information Quality positively influence e-Office Management system users' satisfaction.

From the table 4.13 above, the t value for variable information quality is 3.352 and its significance is 0.001. In this case the alternative hypothesis was supported and therefore the null hypothesis was rejected. The alternative hypothesis was supported due to the reason that the results were able to provide enough evidence to conclude that there is positive effect existing between information quality and e-Office Management System users' satisfaction. Therefore, the available evidence suggests that Information quality positively influences e-Office Management System users' satisfaction.

4.9.3 Service Quality

H₃: Service quality positively influences e-Office Management system users' satisfaction.

From the table 4.13 above, the t value for variable service quality is 0.104 and the significance value is 0.917. In this case the null hypothesis was not rejected and therefore the alternative hypothesis was not supported. The alternative hypothesis was not supported due to the reason that there is no enough evidence to conclude that there is positive effect existing between service quality and e-Office Management system users' satisfaction. Therefore, the results do not confirm if the service quality positively influences e-Office Management System users' satisfaction.

4.9.4 Security and Privacy

H₄: Security and privacy positively influence e-Office Management system users' satisfaction.

From the table 4.13 above, the t value for variable security and privacy is 4.709 and its significance is 0.000. In this case the alternative hypothesis was supported and therefore the null hypothesis was rejected. The alternative hypothesis was supported due to the reason that the results were able to provide enough evidence to conclude that there is positive effect existing between security and privacy and the e-Office Management System users' satisfaction. Therefore, the available evidence suggests that security and privacy positively influence e-Office Management System users' satisfaction.

4.9.5 Summary of Findings

H ₁	System quality positively influence E-Office Management system users' satisfaction.	Not Confirmed
H ₂	Information Quality positively influence e-Office Management system users' satisfaction.	Confirmed
H ₃	Service quality positively influences e-Office Management system users' satisfaction.	Not Confirmed
H ₄	Security and privacy positively influence e-Office Management system users' satisfaction.	Confirmed

Table 4.14 Summary of findings

Source: SPSS 2022, Author

4.10 DISCUSSION OF FINDINGS

The results above (Table 4.13 & 4.14) show that two hypotheses have been confirmed while two hypotheses have not been confirmed. In summary, Information quality and Security and Privacy were confirmed to have influence on e-Office Management users' satisfaction. While System quality and service quality were not confirmed to have influence on e-Office Management system users' satisfaction. The following is the general discussion of findings of this study an Analysis of factors influencing e-Government users' satisfaction in Tanzania.

4.10.1 E-Office Management System users' satisfaction

Generally, the finding of this study shows that Judiciary employees are satisfied with the e-Office Management System. According to descriptive statistics in Table 4.3, E-Office Management System users' satisfaction scored mean value of 4.1161 which indicates that users are satisfied with the E-Services. Moreover, Judiciary of Tanzania employee's satisfaction with E-Office Management System is positively influenced by Information quality and security and privacy. The satisfaction with E-Office Management system indicates that the Government of Tanzania has done some efforts and has invested satisfactorily in the system.

While the e-Office Management System is still new, a number of public Offices in Tanzania have already adopted it including the Judiciary of Tanzania. The system is however not used by all employees, except the chosen one who are provided with

credentials to be able to use the system. This study found that the satisfaction with the system is high and this may motivate employees to keep using it and it may attract many other public offices to adopt e-Office Management System. Users of e-Office Management System responded that they have been having a positive experience, they will continue to use, they made a correct choice, they can recommend new users and they are very satisfied with e-Office Management System.

4.10.2 System Quality on e-Office Management System Users' satisfaction.

In this study, system quality is the desirable characteristic of an Information system which is defined by system ease of use, system accessibility, system development as well as system integration with other related E-Systems. The survey questionnaire was designed in a way that respondent's feedback will help to determine whether system quality influence their satisfaction with e-services provided by the e-Office Management System. This research did not confirm if there is positive relationship between system quality and e-Office Management system users' satisfaction.

System quality explains 4.5% variation of e-Office Management System Users satisfaction at the Judiciary of Tanzania. The Judiciary of Tanzania employees indicated that system quality does not influence their satisfaction with e-Office Management system. The respondents of this study are not positively affected with

e-system ease of use, accessibility, well developed and integration with other corresponding E-Systems.

4.10.3 Information Quality on e-Office Management System Users' satisfaction.

In this study, Information Quality is the desirable characteristic of the Information system outputs which is defined by information accuracy, reliability of information, usability of information and information up to datedness. The questions developed in this study aimed to gather data related to accuracy, reliability, usability and up to datedness of information found in the e-Office Management System. The study found that information quality is important component of e-system and for the case of e-Office Management system, it explains 35.8% variation of e-Office Management System Users satisfaction at the Judiciary of Tanzania. Moreover, it was confirmed that information quality influences e-Office Management System users' satisfaction.

Bressoles. G et al (2014) and Mutangala (2020) found that Information Quality dimension was an important factor contributing to e-satisfaction. In this study, respondents believe that e-system has to provide accurate information to its users, has to provide reliable information to serve different purposes, has to provide up to date information and users must have confidence on information provided by the e-system. The Judiciary of Tanzania employee's satisfaction with e-Office Management System is positively influenced by information quality of the system.

4.10.4 Service Quality on e-Office Management System Users'

satisfaction.

In this study, Service quality is defined by the way through which e-Office Management System helps Judiciary of Tanzania employees to complete their tasks in time, whether the system can be accessed easily, if the technical assistance can be provided timely when needed and easy interaction between users and the system itself. Service quality explains 1.4% variation of e-Office Management System Users satisfaction at the Judiciary of Tanzania.

This study did not confirm if service quality influences the satisfaction of the Judiciary of Tanzania employees with the e-Office Management System. The Judiciary of Tanzania employees does not perceive the service quality as an important aspect for e satisfaction. According to these findings, the extent to which e-system facilitates quick accomplishment of tasks, accessibility, technical assistance and easy interaction do not influence users' satisfaction. This study found that e-Office Management System meets expectation of users and therefore positively affecting their satisfaction.

4.10.5 Security and Privacy on e-Office Management System Users'

satisfaction.

In this study, Security and privacy is considered to be important aspect of Information systems which is attributed with system safety, confidentiality of data and information,

data and information to be used for intended purpose as well as paying tension to security and privacy threats. The finding of this study shows that Security and Privacy influence e-Office Management System users' satisfaction. The Security and Privacy explains 51.6% variation of e-Office Management System Users satisfaction at the Judiciary of Tanzania.

Bressoles. G, et al (2014) Found that security and privacy dimension was an important factor contributing to e-satisfaction. Bhatnagar, A. and Ghose, S. (2004) In their study they identified the security of sensitive information as the most important thing for system success. Judiciary of Tanzania employees perceive security and privacy as important determinant towards e-Office Management System users' satisfaction. For them, for e-system to be a success it must be safe for government business, it must guarantee confidentiality of data and information, data must be used for intended purpose and responsible authorities must pay attention to security and privacy issues. Judiciary employees are satisfied with all those aspects regarding to e-Office Management System.

4.10.6 Gender, age, level of education, working experience, job level (position) and frequency of use on e-Office Management System users' satisfaction.

This study employed gender, age, level of education, working experience, job position and frequency of using as control variables. In this study variable gender

means respondents being male or female. Variable age means the age of respondents which was categorized into four groups 18-25, 26-40, 41-65 and more than 65. Level of education means the highest level of education achieved by participants of the study and the study used four categories, primary or secondary school education, certificate of diploma education, advanced diploma, bachelor degree or master's degree education and lastly Ph.D.

Moreover, Variable Working experience means months or years of working of participants of the study and this study applied four categories which are 0-11 months, 1-5 years, 6-10 years, 11-20 years and more than 21 years. The job level or job position means the position of participants of the study and in this variable, there were three categories which are Management level, Officers level and Assistants level. The last control variable was Frequency of use which means the number of using e-Office Management System, three categories were applied which are everyday use, once or twice a week use and occasionally.

The findings of this study shows that gender, age, level of education, working experience, job position and frequency of use do not positively influence e-Office Management System users' satisfaction at the Judiciary of Tanzania. Data collected were not able to support that all or some of these control variables can positively influence satisfaction with e-government.

CHAPTER 5. CONCLUSION

5.1. Conclusion

The recent development of e-government sector in Tanzania gave the reason for analyzing factors influencing e-satisfaction by using the e-Office Management System at the Judiciary of Tanzania as the case study. E-Office management system is a government-to-Government system which is used to connect public sector in Tanzania. Studies have shown that governments have intensified efforts to improve efficiency of public services by transforming public institutions through e-government (Weerakkody & Reddick, 2013). Developing countries like Tanzania have been investing in e-Government with the intention of delivering quality services, engaging citizens and stakeholders facilitating accountability and minimizing corruption (Liyanage et al., 2021).

Taking into consideration that Tanzania has made a significant progress on e-government, this study aimed to analyze main factors influencing e-Office Management System users' satisfaction at the Judiciary of Tanzania with the intention of contributing to the development of e-government strategies and initiatives in Tanzania and other developing countries. Moreover, the study intended to add more literatures on e-satisfaction specifically on government-to-government E-Systems. In Tanzania, e-Government has facilitated information sharing, simplified transactions and improved efficiency in delivery of services however the sector is challenged by system irresponsiveness and low quality of services provided.

This study adopted quantitative and explanatory research design methodologies and modified comparison level theory. It studied factors influencing e-Office Management System users' satisfaction at the Judiciary of Tanzania. After literature review it was observed that System quality, information quality, service quality and Security and Privacy may influence e-services users' satisfaction. This study employed those four variables as independent variables of the study while users' satisfaction was treated as a dependent variable. Moreover, the study used gender, age, level of education, working experience, job position and frequency of using as control variables of this study.

Moreover, the study had four hypotheses which were tested. Every independent variable of this study was used to create one research hypothesis. That is if all four or some of the independent variables have positive influence on a dependent variable. The population of the study were the Judiciary of Tanzania employees who have access to e-Office Management System totaling to 151 employees by August 2022. The sample was selected from the users of the system, meaning the management, Officers and assistants. The proposed sample were 125 respondents at 5% margin error, 95% confidence level and 50% response rate but there were only 112 respondents. The sampling method used were stratified random sampling.

This research used survey questionnaire which were well developed and tested before being shared with respondents of the study. The questionnaire had three parts which

are general e-Office Management System satisfaction, factors influencing e-Office Management System satisfaction and demographic section. All three sections aimed to collect information related with independent, dependent and control variables as well. The questionnaire was with respondents through google forms, where by respondents were supposed to fill and submit online. May questions in the questionnaire were designed in a five-point Likert scale ranging from 1-strongly disagree to 5-strongly agree.

Data collected were entered into Microsoft Excel and later transferred to IBM SPSS Statistics software for further analysis. Generally, the response rate was 89% which means that 112 responded to this study. IBM SPSS Statistics was used to calculate descriptive and inferential statistics which were finally used in the translation of data to results and further discussions. The internal consistency of this study is 0.85.

This study found that information quality and security and privacy positively influence e-Office Management System users' satisfaction. There was enough evidence to confirm two hypotheses of this study which were related with information quality (H₂) and security and privacy (H₄). Therefore, this study found that system information quality positively influences e-Office Management System users' satisfaction at the Judiciary of Tanzania and security and privacy positively influences e-Office Management System users' satisfaction at the Judiciary of Tanzania.

The findings of this study did not support two research hypotheses related to System Quality (H₁) and Service Quality (H₃). In summary, there was not enough evidence to support that system quality and service quality influence e-Office Management System users' satisfaction at the Judiciary of Tanzania. Therefore, it was not confirmed if system quality and service quality positively influence e-Office Management System users' satisfaction.

Lastly, this study found that gender, age, level of education, working experience, job position and frequency of use do not positively influence e-Office Management system users' satisfaction. It can therefore be argued that there is insignificant relationship between control variables of this study and the dependent variable.

It can therefore be concluded that, e-Office Management system users' satisfaction at the Judiciary of Tanzania is positively influenced by e-Office Management System - information quality and e-Office Management System – Security and Privacy. It can therefore be argued that e-Office Management System users' satisfaction at the Judiciary of Tanzania is not positively influenced by e-Office Management System – system quality and e-Office Management System –service quality. Lastly, it can be argued that gender, age, level of education, working experience, job position and frequency of use do not positively influence e-Office Management System users' satisfaction at the Judiciary of Tanzania.

5.2. Recommendations

For future studies, there is a need for conducting more studies on government-to-government (G2G) E-Systems users' satisfaction. Many studies which have been conducted by researchers based on general e-satisfaction of Government to Business E-Systems. Basing on the findings of this research it becomes very important to do more studies of e-services users' satisfaction on Government-to-Government services. Components such as System Quality and Service quality have to be kept into consideration on future studies.

For the Government of Tanzania and Judiciary of Tanzania in particular, it is important to continue investing in e-government services. The Government must ensure that the Information Quality aspect is given priority in E-Systems. This can be possible by ensuring that the information available is accurate, reliable, up to date and can be confidently used. Security and Privacy must be kept into consideration when implementing e-government projects. E-Systems must be safe for conducting government business, confidentiality must be maintained, data and information must be used for intended purposes and responsible authorities must pay attention to any threats.

5.3. Limitations of the Study

One of the limitations of this study is using the sample size which was relatively small to be generalized to the whole population of Tanzanians who use e-Government

systems. With this limitation, there was a small chance of detecting a true influence of information quality and security and privacy on users' satisfaction and these results can be distorted by random and systematic error.

Also, this study collected data from the Management, the Officers and Assistants who use e-Office Management System at the Judiciary of Tanzania. Since the survey questionnaire used to collect data in this study was in English language, some respondents did not clearly understand the meaning of some questions so they had to seek assistance in translation. In one way or another, language became a limitation during data collection and it caused delay.

Another significant limitation of this study is time. The time was not enough to collect and analyze much information as possible. Lastly, respondents' perception that they have to be paid in order to participate in this study was also a limitation towards the success of this study. Some respondents believed that there is a budget for them, and that they have to be paid to provide information required in this study. It took some time to make them understand that in this academic research there is no payments or gifts to be supplied to the participants.

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APPENDICES

Appendix 1

SURVEY QUESTIONNAIRE

Dear Respondent,

I am conducting a study of an analysis of e-government users' satisfaction in Tanzania using *e-Office Management System (E-Office) at the Judiciary of Tanzania as the case study*. This is in line with the partial fulfilment of the academic requirement towards being awarded a Master's degree in Public Administration (Public Management and Public Sector Reforms) at Seoul National University in the Republic of Korea.

I am kindly requesting you to read every statement of this questionnaire and respond to the best of your ability and knowledge. I would like to assure you that collected information and respondents' identities will remain confidential. This questionnaire comprises of closed ended and demographic questions which takes less than 10 minutes to complete.

Yours,

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Seoul National University (SNU).

Thank you for your valuable response.

Section One: E-Office management system general satisfaction

A	General E-Office Management System satisfaction	SD	D	A	SA	A
1	I have had a positive experience with E-Office management system.	1	2	3	4	5
2	I will continue to use e-Office office management system.	1	2	3	4	5
3	I made a correct decision of using e-Office management system.	1	2	3	4	5
4	I am very satisfied with the services provided by e-Office management	1	2	3	4	5

Section Two: Factors influencing E-Office management system users' satisfaction

B	System Quality	SD	D	N	SA	A
5	E-Office Management system is easy to use	1	2	3	4	5
6	E-Office Management system is usually accessible	1	2	3	4	5
7	E-Office Management system is well integrated with other E-Systems	1	2	3	4	5

8	System quality positively influences my satisfaction with E-Office Management system	1	2	3	4	5
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C	Information Quality	SD	D	N	A	SA
9	E-Office management system provides accurate information.	1	2	3	4	5
10	I confidently use information provided by E-Office management system.	1	2	3	4	5
11	E-Office management system provides up to date information.	1	2	3	4	5
12	High Information Quality positively influences my satisfaction with e-Office management system.	1	2	3	4	5

D	Service Quality	SD	D	N	A	SA
13	E-Office management system helps me to complete my tasks quickly.	1	2	3	4	5
14	E-Office management system administrators provide timely technical assistance.	1	2	3	4	5

15	It is normally easy to interact with E-Office management system.	1	2	3	4	5
16	High Service Quality positively influences my satisfaction with e-Office management system.	1	2	3	4	5

E	Security and Privacy	SD	D	N	A	SA
17	E-Office management system is safe for conducting government activities.	1	2	3	4	5
18	E-Office management system ensures confidentiality of data and information.	1	2	3	4	5
19	Responsible authorities pay attention for e-Office management system security and privacy.	1	2	3	4	5
20	High Security and Privacy positively influence my satisfaction with e-Office management system.	1	2	3	4	5

SD- Strongly Disagree, D- Disagree, N- Neutral, A- Agree, SA-Strongly Agree

Section Three: Participant demographic information

- i. Gender Female () Male ()

ii. Working Experience: -

- a) 1-5 years
- b) 6-10 years
- c) More than 11-20 years

iii. Age: -

- a) 18-25
- b) 26-40
- c) 41-65

iv. Education level: -

- a) Primary/Secondary School
- b) Certificate/Diploma
- c) Advanced Diploma/First degree/Master's Degree/Ph.D

v. My Profession/Job title is

vi. Frequency of Using E-Office: -

- a) Everyday
- b) Once or twice a week
- c) Occasionally

vii. Other Government websites I normally use are: -

a)

b)

Appendix 2

ABSTRACT IN KOREAN

국문초록

탄자니아의 전자정부 이용자 만족도 분석

Bedson Daniel Mariba

서울대학교 행정대학원

글로벌행정전공

전자정부 사용자의 만족도는 사용자가 전자정부 시스템을 지속적으로 사용하기 위한 중요한 요소이다. 선진국을 막론한 많은 국가들이 공공서비스 기관과 공공서비스 제공을 전환하려는 의도로 전자정부 서비스를 이용해 왔다. 정부는 양질의 서비스를 제공하기 위해 전자 정부에 많은 투자를 해왔고, 지역 사회와 이해 관계자들을 의사 결정 과정에 관여하게 하고 부패를 최소화하려는 의도로 참여시켜왔다. 전자정부 사용자의 만족도에 실제로 영향을 미치는 요소가 무엇인지에 대한 질문은 여전히 남아 있다.

본 연구의 목적은 탄자니아 사법부의 E-Office Management 시스템을 사례연구로 활용하여 전자정부 이용자의 만족도에 영향을 미치는 요인을 분석하는 것이다. 본 연구에서는 전자정부 분야에 관한 문헌자료를 바탕으로 전자사무관리시스템 이용자의 만족도에 영향을 미칠 수 있는 4 가지 독립변수를 확인하였다. 본 연구에서 확인된 독립 변수는 시스템 품질, 정보 품질, 서비스 품질, 보안 및 개인 정보 보호이다. 또한 연구의 통제변수로는 성별, 연령, 교육수준, 근무경력, 직위, E-Office Management 시스템 사용빈도 등이 사용되고 있다.

본 연구에서는 4 개의 독립변수로부터 4 개의 가설을 수립하였다. E-Office Management 시스템에 접근할 수 있는 탄자니아 사법부 직원 112 명의 조사 데이터를 수집하여 연구의 네 가지 가설을 테스트했다. IBM SPSS Statistics 소프트웨어를 사용하여 본 연구의 응답자로부터 수집된 데이터를 분석하였다.

본 연구는 정보 품질과 보안 및 개인정보보호가 E-Office Management 시스템 사용자의 만족도에 긍정적인 영향을 미치는 것으로 나타났으나, 시스템 품질과 서비스 품질이 E-Office Management 시스템 사용자의 만족도에 긍정적인 영향을 미치는지는 확인하지 못하였다. 또한 모든 통제변수가 이용자 만족도에 긍정적인 영향을 미치는 것으로 확인되지 않았다. 본 연구의 결과는 의사결정자들에게

전자정부 이용자의 만족도에 긍정적인 영향을 미치는 요소들을 고려할 수 있는 몇 가지 통찰을 제공하며, 서비스 품질과 시스템 품질이 전자정부 이용자의 만족도에 미치는 영향에 대한 더 많은 연구를 수행할 것을 요구한다.

키워드: 시스템 품질, 정보 품질, 서비스 품질, 보안 및 개인 정보 보호, 전자 정부 사용자 만족도

학번: 2021-28985

Appendix 3

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