

**ADDIS ABABA UNIVERSITY**  
**COLLEGE OF BUSINESS AND ECONOMICS**  
**DEPARTMENT OF PUBLIC ADMINISTRATION AND**  
**DEVELOPMENT MANAGEMENT**



**THE EFFECT OF E-GOVERNANCE ON SERVICE**  
**PROVISION OF ETHIOPIAN REVENUE AUTHORITY**

**BY: KALKIDAN G/MICHAEL**  
**ADVISOR: JEMAL ABAGISSA (PhD)**

**A RESEARCH SUBMITTED IN PARTIAL FULFILLMENT OF THE**  
**REQUIREMENTS FOR THE DEGREE OF MASTERS OF ARTS IN**  
**DEVELOPMENT MANAGEMENT**

**MARCH, 2021**  
**ADDIS ABABA, ETHIOPIA**

## Declaration

I, **Kalkidan G/Michael**, the under signed, proclaim that this thesis is work of my own. With the direction and support of the research advisor, I completed the research job independently. This study has never been done in any other programs and all resources used in the research have been duly acknowledged.

Declared by

Name \_\_\_\_\_

Signature: \_\_\_\_\_

Department \_\_\_\_\_

Date \_\_\_\_\_

# Certificate of Approval of Thesis

## School of Postgraduate Studies

This is to certify that the thesis prepared by Kalkidan G/Michael that is submitted in partial fulfillment of the requirements for the Degree of Masters of Arts in Business Administration/MBA complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

Name of Candidate: \_\_\_\_\_; Signature: \_\_\_\_\_ Date: \_\_\_\_\_.

Name of Advisor: \_\_\_\_\_. Signature: \_\_\_\_\_ Date: \_\_\_\_\_.

Signature of Board of Examiners:

External examiner: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_.

Internal examiner: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_.

Dean, SGS: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_.

## Contents

Declaration.....	ii
Certificate of Approval of Thesis .....	iii
School of Postgraduate Studies.....	iii
LIST OF TABLES.....	vii
Acknowledgment .....	viii
List of Abbreviations/Acronyms .....	ix
Abstract.....	x
CHAPTER ONE.....	1
INTRODUCTION .....	1
1.1    Background of the study.....	1
1.2    Statement of the Problem .....	5
1.3    Research Questions .....	6
1.4    Objective of the Study .....	7
1.5    General Objective.....	7
1.6    The Specific Goal .....	7
1.7    The Study's Importance .....	7
1.8    Scope of the Study.....	7
1.9    Organization of the Research .....	8
CHAPTER TWO.....	9
REVIEW OF RELATED LITERATURE.....	9
2.1    INTRODUCTION.....	9
2.2    Theoretical Review.....	9
2.2.1    E-Government .....	9
2.2.2    E-Government .....	11
2.2.2.1    E-governance Objectives .....	12
2.2.2.2    E-governance Opportunities for Developing Countries .....	16
2.2.2.3    Potential Benefits E-government's.....	19
2.3    Services through E-Governance .....	20
2.4    Ethiopian Revenue Authority (ERA) .....	22
2.5    E-Governance Services practiced by ERA.....	23
2.5.1    Electronic Registration (E-Registration) .....	24
2.5.2    Electronic Filing (E-Filing) .....	25
2.5.3    Electronic Payments (E-Payment).....	28
2.5.4    Electronic Issuing Assessment (E-Assessment).....	29
2.6    Review of relevant studies using empirical evidence.....	30

2.6.1	Global empirical review .....	30
2.6.1.1	Local (ERA) Empirical Review.....	32
2.7	Conceptual Framework .....	35
CHAPTER THREE .....		36
RESEARCH METHODOLOGY .....		36
3.1	Introduction .....	36
3.2	Research design .....	36
3.3	Research approach.....	37
3.4	Sampling Design .....	37
3.5	Data Sources, Data Collection Procedures and Tools .....	38
3.5.1	Data Source .....	38
3.5.2	Data Collection Tools.....	38
3.6	Methods of Data Analysis .....	38
3.7	Analysis of Reliability and Validity .....	39
3.7.1	Analysis of Reliability .....	39
3.7.2	Validity evaluation .....	39
3.8	Ethical Considerations.....	39
CHAPTER FOUR.....		41
DATA PRESENTATION AND ANALYSIS.....		41
4.1	Introduction .....	41
4.2	Statistical Analysis .....	41
4.2.1	Group Demographic of Respondents .....	41
4.2.2	Gender Distribution of Respondents .....	42
4.2.3	Education Level of the Respondents .....	42
4.3	Descriptive Analysis of Variables .....	43
4.3.1	Descriptive Analysis of E-registration .....	43
4.3.2	Descriptive Analysis of E-filing.....	44
4.3.3	Descriptive Analysis on E-payment .....	45
4.3.4	Descriptive Analysis of E-assessment.....	46
4.3.5	Descriptive Analysis on E-checking .....	47
4.4	Analysis of Scale Reliability .....	48
4.5.....	.....	48
4.4.1	Multi-Collinearity.....	49
4.4.2	Linearity .....	50
4.4.3	Homoscedasticity .....	51
4.4.4	Normality.....	52

4.5	Analysis of Correlation.....	53
4.6	Analysis of Regression .....	55
4.7	Significance Test .....	57
CHAPTER FIVE .....		59
SUMMARY, CONCLUSION AND RECOMMENDATION .....		59
5.1	INTRODUCTION .....	59
5.2	Summary of Major Findings .....	59
5.3	Conclusion.....	60
5.4	Recommendations .....	61

## LIST OF TABLES

Table 1: Age Group Distribution .....	42
Table 2: Gender Distribution .....	42
Table 3: Education Level of the Respondents .....	43
Table 4: Descriptive Analysis of E-registration .....	44
.....	44
Table 5: Descriptive Analysis of E-filing .....	45
Table 6: Descriptive Analysis of e-payment .....	46
Table 7: Descriptive analysis of E-assessment .....	47
.....	47
Table 8: Descriptive Analysis of E-checking .....	48
Table 9: Reliability Statistics .....	48
Table 10: Collinearity Statistics .....	49
Table 11: Residuals Statistics .....	50
Table 12: Correlation .....	54
Table 13: Model Summary .....	55
Table 14: ANOVA .....	56
Table 15: Regression Coefficients .....	56

## **Acknowledgment**

For the most part I would like to express my gratitude to, God for allowing me to persevere in the face of adversity. Day by day, I have been following your advice. You are the one who allowed me to finish my degree. I will continue to put my faith in you for my future.

I would also like to express my gratitude to my supervisor Dr. Jemal Abagissa, who enable me to complete this project. His/ her advice and assistance helped me get through all of the stages of writing my project.

Finally, I would like to give my special thanks to my husband Ato Ermyas Tefera and my family as a whole for their continuous support and understanding when undertaking my research and writing my project. Your prayer for me was what sustained me this far.

## **List of Abbreviations/Acronyms**

ICF - Investment Climate Facilitation for Africa  
ERA - Ethiopian Revenue Authority  
UNDESA - united nations department of economics and social affairs  
G2C - Government To Citizens  
G2G - Government to Government  
G2E - Government to Employees  
G2B - Government to Business  
GTP - growth and transformation plan  
MICT - Ministry of Information Technology  
LTO - Large tax payers office  
UNPAN – united nations public administrations network  
CSOs – civil society organizations  
IRS– internal revenue service  
KRA - Kenya Revenue Authority  
SIGTAS–standard integrated government tax administration system  
ER – electronic registration  
EF–electronic filing  
EP – electronic payment  
EA – electronic assessment  
EC – electronic checking  
SP – service provision

## **Abstract**

The E-governance is a structure established to put together man and machine. The implementation of any E-governance services requires advance technology infrastructure like web-based application and dedicated server and user-friendly web interface. E-governance being flag developed ship to offer varieties of possibilities for more efficient and effective service delivery & maximized user satisfaction, improve inter-sectorial collaborations (interoperability) service delivery mechanisms. Electronic interconnection & service delivery putting in place application that wouldn't only enable citizen participate through feedback, but would also allow transactions among citizens and government (Bwoma and Huang, 2003; Asgarkhani, 2004; Nkwe, 2012; Guma, 2013).

The E-tax filing system, which ERA implemented for both large and small taxpayers, was built in 2009 by CRC Sogema, a Canadian consulting firm, with funding from the Investment Climate Facilitation for Africa (ICFA) (ICF). E-tax filing can be accessible in two ways: directly through the authority's website, authenticating through two security layers, and declaring tax. (Fortune, 2015).

This study is motivated because of the absence of studies in the area of E-governance and its effect on public organizations service provision in Ethiopian Revenue authority. The main goal of the research is to study the effect of e-governance on service provision in public organizations, taking Ethiopian Revenue Authority (ERA) as a case study area. From different types of research designs, explanatory based research design was employed as a main research design for this study.

The sampling population was determined through slovin's sampling formula and the data gathered from the primary and secondary sources are analyzed to reach the conclusive results. The study showed the E-governance system implemented by ERA has a positive effect on the service provision process of the organization. The results indicated that the system has empathy towards customers, is reliable by users, is responsive and the results are assuring.





# CHAPTER ONE

## INTRODUCTION

The following chapter contains the general background of the study, Objectives of the study as well as statement of the problem. The chapter further describes the scope of the study, importance of the study and organization of the study.

### 1.1 Background of the study

E-government is rapidly becoming the centerfold of the emerging development paradigm in public administration. The roots of this enveloping environment are embedded in two related phenomena.

First, potential of new technologies in transferring hitherto unimaginable amounts of information and knowledge at speed that reduces costs, enhance effectiveness and efficiency, second, positive linkages between these technologies, knowledge, citizen involvement in policy formulation and implementation, improving qualities of service delivery. Nowadays, technology-driven service delivery is fostering a more civilized social revolution, as well as providing excellent governance for governments, citizens, and enterprises (UN, 2004 and 2008; Perucca and Sonntagbauer, 2014). Frequently Asked Inquiries (FAQs) can help e-governance increase effectiveness and efficiency by giving answers to the most frequently asked questions (FAQs) (Otiye and Ntulo 2013).

In Greece the public sector organizations those implementing E-governance platforms able to achieving 98% of providing quality public services (E-health and E-education) and ensuring efficiency and effectiveness than other organizations those have not E-government platforms (Iles et al, 2005).

The use of internet playing very significant role for global information exchange used in private and public, business and academic areas connected by different technological application. Since emergence of the Internet at the beginning by the Division of Defense of America as information transmission system, the internet has have transformed the lively hood and activity everyone. As a result, the number of internet users has skyrocketed. With a global population of 7,634,748,428 people, there are around 4,208,571,287 internet users. With a population of 1,287,914,329, the African continent has a total of 464,923,169 users with a population of 1,287,914,329. (internet usage statistics,2018).

Since 2001, United Nations (UN) has been publishing e-government survey. The survey is a global report which evaluates the e-government analysis progress of UN member states. The review summarized the relationship between e-governance and the adequacy of conveyance of open administration which suggest a new beginning in the advancement of the e-government system. It also studied the e-government system undertakings to one another. These support the United Nation agenda 2030 for sustainable development. (UNDESA, 2018).

Man and machine are the two main components of the e-governance system. The implementation of any e- governance services requires advance technology infrastructure like web based application and dedicated server and user-friendly web interface. E-governance being flagship to offer varieties of possibilities for more efficient and effective service delivery & maximized user satisfaction, improve inter-sectorial collaborations (interoperability) service delivery mechanisms. Electronic interconnection & service delivery putting in place application that wouldn't only enable citizen participate through feedback, but would also allowed transactions between citizens and government (Bwoma and Huang, 2003; Asgarkhani, 2004; Nkwe, 2012; Guma, 2013).

Information was saved in the form of documents prior to the internet. Without wasting our time, energy, or money, e-government provides consistent and relevant information. By bridging the gap between government and citizens, enhancing contact, and fostering trust between citizens and government, e-government creates a strong link. The distribution mechanism has become much more effective as the telephone network has advanced and the internet has expanded. Accountability of government has increased with the popularity of e-governance. Citizens are consuming about their rights, facilities and expenditures of government and schemes. The government responds to citizens in the system's performance, which boosts government productivity and efficiency. E-government is multi-dimensional in that it provides services to a variety of industries. 2015 (G Hanumanthappa).

Government-to-citizen services are provided under E-Government (G2c) model. This strategy establishes a close link between the government and the people. Citizens pay for government-provided services and only government-provided services. Citizens can communicate with the government at any time, from any location, using appropriate media such as the internet, fax, phone, and email. The major goal is to enable citizens to benefit from effective public service delivery and to improve the government-citizen relationship. (G Hanumanthappa, 2015).

The other category is that of the form, which ranges from government to government (G2g). E-Administration is another name for it. Services are shared between governments under this paradigm, which is beneficial. Various government agencies, groups, and departments

communicate information. (G Hanumanthappa, 2015).

E-Government Services from Government to Employees is the third (G2e). Personnel can use this system to monitor and manage government operations, and the government can use it to assess the effectiveness and efficiency of its employees. Employees are aware of their perks and duties in this paradigm. This model strengthens and accessibility of the employees in the governmental organization.

This model share the important information like attendance record, employee record, complaints, employee salary, working record and all kind of rules and regulations etc.

E-Government Services from Government to Business is the last one (G2b). The government-to-business model establishes a link between the private and public sectors. Tax collection, bill payment and penalty payment, and rule and data exchange are all roles that government and corporate groups play.

In this approach, businesses require a variety of government services, including licensing, bill and tax payment, complaints/dissatisfaction, patent rejection and approval, and so on. For the G2B model to succeed, electronic transactions and safe above truncations to permit payments via the electronic medium are required (G Hanumanthappa, 2015). Late in 2014, the Ethiopian Revenue Authority (ERA) began offering e-services. It is the body in charge of collecting domestic tax money. When the Ministry of Revenues, the Ethiopian Customs Authority, and the Federal Inland Revenues were consolidated into one large institution on July 7, 2008, the ERA was born.

The authority's goals were to establish a modern revenue assessment and collection system, as well as to provide customers with equitable, efficient, and quality service, to encourage taxpayers to voluntarily discharge their tax obligations, to enforce tax and customs laws by preventing and controlling contraband, as well as tax fraud and evasion, and to collect tax revenues generated by the e-commerce system in a timely and efficient manner (Ministry of revenues, 2016). To provide a fair and modern Tax and Customs Administration, the authority built an e-tax system.

According to Fortune (2013), the ERA's heavily manual tax system has spent a significant portion of its payroll budget on processing paper returns and converting data to computer readable form. The E-tax filing system, which ERA has been implementing for both large and small taxpayers, was established in 2009 by CRC Sogema, a Canadian consulting firm, with funding from the Investment Climate Facilitation for Africa (ICFA) (ICF).

There are two ways in which e-tax filing can be accessed; by directly using the authority's

website and authenticating through two security layers and declaring tax (Fortune, 2015). The World Company Doing Business (2014) said that, on the online service delivery status ERA is in its premature stage. Still, the need for manual reporting and appearing to a tax office is unavoidable.

According to AtoBirhanu, Head of Customers Education and Support Team Coordinator, interview with ERA's official monthly newsletter (GebiLeleemat, 2015), e-Tax has the capacity to provide internet/online services via ERA's website. If used at full capability, e-Tax is expected to provide services such as online tax registration (registration), online monthly and annual tax declaration (e-tax filing), online possibility to effect payment through an option called Company Interface, online tax clearance and tax refund request service (Online e-Service) and online correspondence that help tax payers to request questions and clarification from ERA.

As for Ethiopia, in February 2013, The Ethiopian Revenue Authority (ERA) has brought significant benefits to the business community and Ethiopia's wider economy by developing e-Tax system. Now, taxpayers can file their tax returns online, within one day and with just little procedures (Fortune, 20). Ethiopia's tax income contribution to GDP in 2018/2019 was 9.8%, according to the latest Ministry of Finance (MoF) data. In comparison to other countries, this is lower.

The Ministry has responded by launching a digitalized e-tax filing system. The filing approach has alleviated the most common complaint among taxpayers: "long lines and time-consuming tax filing and payment processes." As a result, taxpayers have benefited from penalties and interest payments resulting from late tax filing.

The biggest issue with the online tax filing system is the collection of the tax payment receipt, which necessitates physical presence at the tax office. The Ministry of Revenues is working on a solution that will allow receipt collecting to be done digitally (SamrawitYemane, 2021). Furthermore, in September 2020, the Ethiopian Authority began offering an online service, allowing customers to bypass long lines at customer stations.

All of the Authority's staff has continued to get video-assisted training around the country. Customers may now upload and acquire the necessary paperwork for clearing products online, making it the best alternative for saving both parties' time and money. (Yemane, Samrawit, 2021).

Accordingly, this study was conducted to study the effect of E-governance on service provision in public organizations in Ethiopia by taking Ethiopian Revenue Authority as the case study.

## **1.2 Statement of the Problem**

Ethiopia become one of the fastest economic growing countries in Africa and has showed enormous economic progress advancement over the decade with glaring future.

Successful and solid organization is one of the key maxims to urge commonsense progressions and ICT is critical device to come across way better government objectives. E-government progresses the development, information straightforwardness and social cooperation in Ethiopia to encourage to covert regular exercise of government benefit and robotize working forms.

The truth that in Ethiopia there have been various extended exercises to preserve maintainable improvement in development and change arrange (GTP), previous services of data innovation (MICT) started and vision to bolster ICT to extend the great administration handle. This lead to a five year procedure was defined and conducted from 2011-2015, and MICT made an course of action with outside specialties to bolster the improvement of Ethiopia activity arrange of e-government from 2016-2020 by carrying thought of final five a long time headway of ventures and fundamental center ranges.

Tax may be a obligatory installment to government which forces a individual commitment on the charge payer without desire of coordinate return or advantage of taxpayers. Assess income is one of the foremost critical sources of government salary. It may be an effective instrument for exchanging acquiring control from people to government (Gebere, 2006)

A income specialist locks in numerous exercises, such as handling returns and related data from citizens, entering charge return information in to a database, coordinating returns against recording necessities, handling assess installments and coordinating thm against evaluations, and issuing appraisals and discounts. One way to boost authority's effectiveness is by growing it's utilized of data and communication innovation (ICT).

Such innovation can encourage a wide extended of administrations, counting enlisting citizens, recording returns, preparing installments, issuing installments, issuing appraisals and checking against third-party data (Clarke, 2001). Various survey studies have been conducted to assess the implementation of E-governance of revenue authorities. For instance a set of studies have been conducted on the challenges and benefits of adopting E-governance system and its effect on tax compliance (Naibei et al., 2011; Gebre 2001; Gayathri P et al., 2013 Gekonge J et al., 2016; and Harrison et al., 2015).

E-governance of revenue authorities is equally important for all countries but as far as the researcher's knowledge there is lack of empirical studies which examine the Ethiopian tax

office. The studies conducted in Ethiopia mainly focus on taxpayer's perception (Tadesse et al., 2014; Samson, 2016).

On the other hand, as per Fortune (2020), 3,750 only large tax payers and 4,800 medium tax payers in the Western, Eastern and Large tax payers (LTO) branch offices have been using the e-tax filing system. Appropriation of e-tax recording and installment framework has gotten to be essential as numerous nations receive data framework in assess administration. E-tax frameworks advance the competence and adequacy of charge recording and installation.

E-tax filing system is equally important for all countries but as far as the researcher's knowledge there is lack of empirical studies which examine the Ethiopian tax office. The studies conducted in Ethiopia mainly focus on taxpayer's perception (Ruta, 2017; Samson, 2016; Assefa, 2013). As the review of previously conducted studies show that all of the studies are bounded to and limited with e-tax system only.

This is a huge research gap that this study is trying to fill. Thus, the research aims to discuss and assess e-governance over e-tax system, which is broader and mother case for all e-services provided by governmental and public organizations.

This study is therefore motivated because of the absence of studies in the area of E-governance and its effect on public organizations service provision in Ethiopian Revenue authority. Moreover, It is critical to notice that Ethiopia's environment is different from the developed countries environment where the E-governance service is more enhanced.

Hence, the study's main goal is to investigate the impact of e-governance on service provision in public organizations, taking Ethiopian Revenue Authority (ERA) as a case study area.

### **1.3 Research Questions**

1. How Electronic registration (e-registration) affects provision of services in the case of ERA?
2. How Electronic filing (e-filing) affects provision of services in the case of ERA?
3. How Electronic payments (e-payments) affect provision of services in the case of ERA?
4. How Electronic issuing assessments (e-assessment) affects provision of services in the case of ERA?

## **1.4 Objective of the Study**

### **1.5 General Objective**

The study's main purpose was to investigate the influence of e-governance on public-sector service delivery, with a focus on the Ethiopian Revenue Authority (ERA).

### **1.6 The Specific Goal**

The following are the study's specific aims, as stated above in the overall objective:

- In the case of ERA, to examine the impact of electronic registration (e-registration) on service provision.
- In the instance of ERA, to investigate the impact of electronic filing (e-filing) on service provision.
- In the case of ERA, to investigate the impact of electronic payments (e-payments) on service supply.
- In the instance of ERA, to examine the impact of electronic issuing assessments (e-assessment) on service supply.

### **1.7 The Study's Importance**

The goal of this study was to look into and better understand the relationship between e-governance and service delivery in public enterprises. This study was beneficial to identify on which services and to what extent e-governance has an effect. The study can provide information to ERA on how the e-governance system is affecting the services provided. It also helps to identify which services are more affected by e-governance service provision.

It can be beneficial for leaders to understand which types of services can be efficient if adopted by e-services. It helps as a reference to similar government public organizations in identifying appropriate e-service provisions that can improve performance of the organizations and lead the public administration to success. Adoption of the proper e-service contributes to the organization's ability to build trust and loyalty.

### **1.8 Scope of the Study**

The aim of the study is to assess the effect of e-governance in service providing public organizations the study is limited only on Ethiopian Revenue Authority (ERA) as a study area. Hence, the study is a case conducted on ERA as a sample organization to represent public organizations in Ethiopia. The study is further delimited only one e-governance dimension of

government to customer services (G2C).

Services provided by revenue authority may differ but this study is limited to the most common services provided by most revenue authority. These services are taxpayer's registration, filling returns, processing payments, and issuing assessments. The public services component pertains to government trust, legitimacy, and confidentiality, which are crucial to the production of public value.

The data source was limited to primary sources. Explanatory research design was employed with quantitative research approach. The time constraint of the study is 4 months which is the amount of time available to complete a project.

## **1.9 Organization of the Research**

The study comprises five main chapters. The first chapter is devoted to a broad introduction that covers the study's background, the issue statement, the aims, significance, scope, constraints, and how the research was organized. The second chapter focuses on a survey of related literature and provides a thorough description of the problem. The methodology used to meet the research objectives, including primary data and analysis methods, is discussed in Chapter 3. The fourth chapter deals with data analysis and presentation. The results collected in accordance with the study questions are discussed in this chapter. Finally, in Chapter 5, you'll discover a summary of the findings, a conclusion, and some recommendations.

This chapter explores the types of e-government and their significance in service provision improvements, in the implementing organizations. Government to Business (G2b), Government to Citizens (G2c), Government to Government (G2g) are the main types of e-governance discussed in this chapter. The chapter also states the problem which is lack of academic study on the field and declares the clear goals which is to fill this gap. The next chapter covers the literature reviews of different publications.

# CHAPTER TWO

## REVIEW OF RELATED LITERATURE

### 2.1 INTRODUCTION

An Overview This chapter is devoted to current literatures found on the online web system, as well as some preparatory books, in accordance with the paper's goal.

This Chapter reviews about e-government, e-governance related concepts, service provided in public organizations, and the relationship between e-governance and service provision. Encompassing empirical reviews and results of some findings are presented. Finally, conceptual framework of the study is offered at the end of the chapter.

### 2.2 Theoretical Review

This review briefly explains the concepts on E-government and E-governance. Then further explains the implementation of this concept in the Ethiopian Revenue Authority (ERA). With an overview on the E-governance services implemented and provided by the Ethiopian Revenue Authority (ERA)

#### 2.2.1 E-Government

Despite the fact that many people use the term e-government, there is no clear consensus about what electronic government means(Gil Garcia, 2012).Many studies and/or organizations have defined e-government in different ways; “E-government” is defined as “government-owned or operated information and communication technology (ICT) systems that transform relationships with citizens, the private sector, and/or other government agencies in order to promote citizen empowerment, improve service delivery, strengthen accountability, increase transparency, or increase government efficiency.” (WB, 2001)

E-government is the use and application of information technology in government to streamline and integrate workflows and processes, effectively manage data and information, improve public service delivery, and increase communication channels for citizen involvement and empowerment. E-government refers to the use of information technology by government agencies (such as Wide Area Networks, the Internet, and mobile computing) to transform relationships with individuals, corporations, and other government agencies. These technologies can be used to achieve a range of goals, including better citizen service delivery, increased relationships with business and industry, citizen empowerment through information

access, and more effective government management. Less corruption, increased transparency, greater convenience, income growth, and/or cost reductions are possible outcomes. (2015, World Company)

E-government is described as the delivery of government information and services to citizens over the Internet and the World Wide Web. UNPAN (United Nations Pan-African Network, 2012) The UN Member States' E-Government Development Index depicts the current state of E-Government Development. It is a composite measure of three key aspects of e-government: online service supply, telecommunication connectivity, and human capacity.

Nevertheless, the entire extent of e-government including a big figure and procedure, in that respect four fundamental sorts of connection that frame premise of e-government organization:

- Government to Government: (G2G) collaboration including distributing information and lead electronic data trade among different government offices and different elements. This trade can be both external and internal office at country level just trades among the country, common and lower levels.
- Government to Citizen (G2C): Collaboration involving systematic flow of information conveyance of administrations happens, satisfying the essential goal of e-government. Activities in this type of collaboration endeavor to make exchanges, for example, acquiring authentications, restoring licenses, settling tax obligations/charges and applying for government conspires less tedious and advantageous. Additionally, contained the segment of contribution of citizen in procedures and approach planed by administration.
- Government to Business (G2B): connection including enhanced & proficient acquisition of merchandise & help provided by administration to the business elements. It's likewise incorporates clearance to administration products to general population and it has possibility to decrease expenses by enhanced acquirement rehearses & expanded challenge. Additionally, such kind of connection includes the exchange and trade among administration and organizations with respect to licenses, tax assessment and approaches issued for different areas.
- Government to Employee (G2E): collaboration covering business chances, work rules, rules and directions, advantages and structures of payment to the administration representatives, worker benefit plans & controls, government lodging and etc. (The United Nations Educational, 2005)

While many sources define E-government differently, there is a unifying theme. E-government refers to the use of information technology, particularly the Internet, to improve the delivery of government services to citizens, businesses NGOs, non-governmental organizations, and other

government entities. Citizens can engage with and receive services from the federal, state, and municipal governments twenty-four hours a day, seven days a week through e-government (Nkwe, 2012).

### **2.2.2 E-Government**

E-government delivers timely, accurate, and helpful information. Previously, information was provided in the form of documentary forms, rules, and procedures, among other things. Information is available via the internet under e-governance, which saves time, energy, and money. The rise of e-governance has boosted government accountability. Citizens are concerned about their rights, services, and government spending and schemes. Government becomes accountable to citizens for its actions, which promotes government productivity and efficiency.

E-government creates a close relationship between the government and the people. It bridges the gap between citizens and government, increasing interaction and confidence. The development of the telephone network and the expansion of the internet have made it possible to provide a wide range of services to citizens. When it comes to E-governance, governance refers to the official and informal processes and structures that guide and restrain a group's collective activity. The subset of government that acts with power and creates formal duties is known as government.

Governments do not have to carry out all aspects of governance. Private enterprises, associations of firms, non-governmental organizations (NGOs), and associations of NGOs all engage in it to build governance, frequently in collaboration with governmental agencies; sometimes without official permission. This term clearly implies that e-governance is not limited to the public sector.

In the business sector, it also entails overseeing and implementing policies and procedures. "E-governance is the use of information and communication technologies (ICTs) by government to improve information and service delivery, encourage citizen participation in decision-making, and make government more responsible, transparent, and effective.

New leadership styles, new ways of discussing and choosing policy and investment, new ways of accessing education, new ways of listening to citizens, and new ways of organizing and providing information and services are all part of e-governance. E-governance is a broader notion than e-government because it can transform how citizens interact with governments and each other. E-governance has the potential to introduce new citizenship notions, both in terms of citizen needs and obligations.

Its goal is to engage, empower, and enable citizens.” Some scholars argue that e-government is merely a subset (although a significant one) of e-governance. As a result, e-governance is a larger concept that encompasses the use of information and communication technology (ICT) by government, business, NGOs, political parties, and civil society to increase citizen participation in governance (Gil Garcia, 2012; Nkwe, 2012).

The aforementioned definitions include three key areas of E-governance transformation:

1. Internal - refers to the use of E-governance platforms to increase the efficiency and effectiveness of government's internal activities and procedures by tying together various departments and agencies. As a result, information can flow considerably more quickly and freely across government departments, decreasing processing time, paperwork bottlenecks, and long, bureaucratic, and inefficient approval procedures.

2. External - it provides new opportunities for governments to be more transparent to consumers and businesses by allowing access to a broader range of government-collected and generated data. ICT also allows for collaboration and partnership between various governmental institutions, the corporate sector, and other third parties in the governance system.

3. Adoption of relational -ICT and E-governance platforms may enable major changes in citizens' connections with the state, as well as between nation states, with ramifications for the democratic process and government structure. Vertical and horizontal service integration can be achieved, allowing residents and other stakeholders to get seamless services by combining information and services from numerous government entities.

Fountain (2001) proposes the concept of a "virtual state," which is a governmental body comprised of "virtual agencies, cross-agency networks, and public-private networks whose structures and capacities are based on the Internet and web."

### **2.2.2.1 E-governance Objectives**

The goal of e-governance is to gradually revolutionize the way government functions, not only to computerize government offices. But the process takes time and significant amount of re-engineering of processes. Hence, E-government is not just another way of doing existing activities; it is a transformation on a scale that fundamentally alters the way public services are delivered. It does not have a time-line; rather it is evolutionary.

The relationship is no longer just a one-way, government versus them citizens' proposition; rather it is about building a partnership between governments, and their citizens (Adeyemo,

2010).

In poor countries, the most prominent expected benefits of E-governance are increased efficiency (people may communicate with the government more readily through electronic means of communication). This leads to improved efficiency in public service delivery (due to faster dissemination of government information to a larger audience), increased transparency and accountability of government functions, convenient and faster access to government services, and improved democracy (equal access to information is provided to all, regardless of physical location or disability an individual may have) (interdepartmental exchange of information and merger of related services is enhanced among government agencies with an accompanying reduction of transaction costs, time, space and man power). Through transformation/ re-engineering of processes using E-governance platforms, government should achieve the following (Breen, 2020).

### **1. Efficiency**

As with many information technology-related projects, one of the anticipated benefits is improved efficiency. In e-government projects, this efficiency can take many forms. Some projects seek to reduce errors and improve consistency of outcomes by automating standardized tasks.

Similarly, some proponents of e-government argue that lowering the amount of time federal employees spend on repetitive tasks allows them to learn new skills and progress their careers.

### **2. Improved and New Services**

The potential to increase the quality, range, and accessibility of services is an ambition emphasized by proponents of e-government.

Quicker transactions, stronger accountability, and better processes, according to some observers, could increase service quality in addition to increasing efficiency. The advancement of e-government also opens the door to new services.

### **3. Increased Citizen Involvement**

Increased citizen participation in government is a third goal anticipated by some e-government proponents. One method to achieve this is to connect people living in rural sections of the country so that they can send and receive information more readily. A second way suggested by some observers is through increased participation in government by younger adults. Some advocates believe that the generation of citizens about to come of political ages, which have grown up with the Internet and digital communications technologies in their everyday lives,

was more likely to become participant citizens if the means to do so are similar to the ones they use for personal and professional activities.

#### **4. Targeting Corruption**

Open government can also support the fight against corruption, as electronic channels are easily inspected and controlled compared with personal interactions between citizens and officials. Many governments have chosen to go online in departments such as customs, income tax, sales tax, and property tax which have a large interface with citizens or businesses and are perceived to be more corrupt. Procurement by government is also seen to be an area where corruption thrives. This limits the discretion and scope for arbitrary action available to civil employees when dealing with each individual application (Bhatnagar, 2003).

- Citizens receive better government services.
- Interactions with corporations and industry have improved.
- Providing citizens with greater knowledge or more effective government administration is one way to empower citizens.
- Increased openness and convenience, as well as a reduction in corruption and costs

#### **5. Response**

The word 'responsiveness,' according to the Cambridge dictionary, is a noun that is related to the words 'responsive' and 'respond.'" Responsive' is an adjective meaning 'making positive and quick reaction to something or someone' .To say or do something in response to something that has been said or done,' says the dictionary (Cambridge, 2003). As can be seen, responsiveness is a response to a specific stimulus. It can be spontaneous, for example, based on a person's personality, such as crying when watching a sad movie or it might be predicated on a rule, such as halting a car at a red traffic light. When focusing on a business process, the answer is usually carefully defined, most often in such a way that it meets the business objectives and goals of a certain commercial or public organization. Responsiveness is the result of an event or action that initiates a business process. This method or procedure is specified by legal means in public administration, and the answer is carefully described in advance.If a citizen applies to a public sector organization, the response is determined by the form of the application – process factor (if an application is incorrectly written, the response is rejection or a demand for completion), the current situation in the organization – business factor (if there are many applications, the current application is queued), and the public employee – personal factor (Decman, 2005)

Many authors see responsiveness as a component of e-government-citizen interaction that

influences the development of various policies and e-democracy. IT itself and related services enable better interaction and are an interesting potential in developing policies and increasing responsiveness of both public organizations and politicians (Sims 2001). Researches in this field that consider responsiveness measurement as described further here are rare and hard to find. Different sources and literature show us a tendency towards development and implementation of this and similar kinds of benchmarking that originate from different governmental strategies and plans of many countries in the world. While some state strategies just highlight the need to improve responsiveness through the use of technology, others include measurement recommendations. Canada and its publication *Defining and Measuring Success in Canadian Public Sector Electronic Service Delivery* is one such example (Mechling, Vincent 2001). It specifies the requirement for establishing an evaluation framework for the Government's online model, as well as a specific benchmarking system.

Responsiveness can be measured at many stages of the working process. As a result, responsiveness is actually a response reaction. It can be measured as a first reaction when faced with a certain procedure (answering a phone, reading e-mail) or as the final response at the end of procedure (finished administrative procedure with a provision, certain information offered to the customer by the public employee to the customer's request by the phone). Since the latter depends on the procedure itself and the current situation in the organization, we accepted the initial response as the point of measurement.

Today's society is focused on implementation of information society and the development of e-government therefore we chose e-mail as a communication channel and measured the response to it.

## **6. Reliable**

A great part of the e-Government acceptance is based on reliability. In general, trust refers to a party's "willingness to be vulnerable to the activities of another party based on the expectation that the other would do a certain action" (Mayer, Davis, & Schoorman, 1995), regardless of whether the trusting party can monitor or control the other party.

Human Behavior in IT Adoption and Use is something that can be looked at. 10 Thirty Third International Conference on Information Systems, Orlando 2012 distinguishes between three types of trust used in e-Government acceptance models: trust in a person or an organization, trust in a technology, and trust in a person (or an organization) that he or she will be able to deal with a technology in a desired way, which is often referred to as confidence.

## **7. Empathy**

Governments will be able to realize critical efficiency benefits and increase service delivery levels, as well as improve citizen satisfaction with government services and overall quality of life, by adopting a citizen-centric strategy (Mehra, 2004). It's all about reorienting government priorities, focusing on service delivery through the perspective of citizens rather on operational or other government system imperatives. Citizens should have more faith in citizen-centric e-governance, and government transactions should be more accountable (Gronlund, 2002).

It should also provide enhance collaboration among departments and stakeholders, thereby enabling fast decision making and consensus (Garson, 1999). Citizen centric e-government could infrastructure. Also help avoid duplication and overhead through shared services and infrastructure. A citizen-centric government is something much more fundamental than simply a collection of departments providing services to citizens.

It involves rethinking the entire service delivery system-across all agencies, and all levels of government-from a citizen perspective. Moreover, user needs typically cut across the organizational structures and hierarchies of government. So a true citizen focus requires a holistic approach, appreciated by all the levels of government. The study concerned with citizen-centric approach instead of the agency- centric approach as e-governance model of public service delivery.

## **8. Assurance**

Assurance refers to a positive deflation intended to give confidence or freedom from doubt and the other belief in one's ability.

### **2.2.2.2 E-governance Opportunities for Developing Countries**

The government's electronic delivery of public services not only improves efficiency and quality, but it also makes access more egalitarian. When services are available through the Internet, kiosks, Integrated Service Centers, and mobile devices, it becomes very convenient for people in both urban and rural areas of the country to use them, as governments and private sectors in many countries are investing heavily in extending communication infrastructure to the most remote parts of the country.

It also is benefiting public sectors in achieving higher productivity, efficiency, enhanced transparency, accountability, responsiveness lead to an overall improvement in the image of the government in the minds of the citizens. Raised trust levels lead to improved relationship between government & citizen as well as government & business, one of the major objectives

of good governance (UNESCO, 2005).

In underdeveloped countries, the benefits of using and applying E-governance are the same as in rich countries.

Many potential benefits of E-governance are not gained by poor countries as a result of their restricted adoption of E-governance in the developing world, which could explain the discrepancies between these two regions (Ndou, 2004).

Greater efficiency, increased transparency and accountability of government processes, convenient and faster access to government services, improved democracy, and cheaper costs for administrative services are some of the frequently mentioned benefits of E-governance in developing nations. These advantages are achieved in the service quality dimensions listed below (Gathungu and Mugnai, 2012)

1. Electronic communication allows citizens to communicate with the government more easily. As a result, government information is disseminated to a bigger audience more quickly, resulting in increased efficiency in public service delivery.
2. As accountability and transparency have improved, corruption has decreased dramatically. This is due to the fact that citizens' and government service providers' physical interactions are minimal, and their activities can be easily monitored through central data base administration on a national portal.
3. Regardless of one's physical location or physical disability, everyone has equal access to knowledge. Diverse service sites help to overcome the distance barrier.

The following are important benefits that poor countries obtain from E-governance software, as noted by Nadou (2004) in her research:

1. Cost reduction and efficiency gains: - The appropriate application of E-governance may possibly reduce the number of inefficiencies in processes by allowing file and data sharing across government ministries/departments, thereby contributing to the elimination of mistakes from manual procedures, reducing the required time for transactions. Internal processes can be streamlined to enable faster and more informed decision-making, as well as transaction processing can be sped up.
2. Quality of business and citizen service delivery:- in the traditional paradigm of public service delivery, procedures are lengthy, time-consuming, and opaque. A business that wishes to obtain a license or a permit has to fill out a number of applications forms, has to visit a number of different offices and spend considerable amount of time. If a citizen wishes to be issued with a certificate or any other official document, s/he have to travel to the central government office,

go to different offices and spend a lot of time for a simple service. On the other hand, an E-government initiative, which puts government services online and thus reduces bureaucracy, provides round-the-clock accessibility, quick and convenient transactions, and clearly improves the quality of services in terms of time, content, and accessibility, offers round-the-clock accessibility, fast and convenient transactions, and obviously improves the quality of services in terms of time, content, and accessibility.

3. Transparency, accountability, and anti-corruption:- E-governance aids in making decision-making processes more transparent. E-governance allows citizens to directly engage in decision-making in many circumstances by allowing them to submit their own thoughts and comments in forums and online.

If web sites are designed carefully and openly, they can be valuable resources for transparency as citizens, businesses and other stakeholders shall be able to see political and governmental information, rules and policies. Previously it was often necessary to go directly to governmental offices to obtain information, but now this information should be available on the web.

4. Increase government capacity: - the use of E-governance platforms for reorganizing internal administration transactions, communications, and interrelationships, as well as for easy information flow and transfer, provides a significant opportunity to boost government capacity. Intranets enable various departments to share databases of common customers and pool their members' skills and capacities to solve problems.

These capabilities, in turn, promise faster information flow and transfer, faster and less expensive provision of goods and services, faster and better decision-making processes, and the elimination of paper bottlenecks. Expert or knowledge-based systems aid in the creation of more responsive and guideline-based procedure. It also assures benefits to the government itself through reduced costs and spending, which could require lower taxes to finance.

5. Creating a network and a community: - E-governance places both constraints and opportunities on the formation of networks and communities. An E-governance program, as previously said, necessitates a complex network of interrelationships involving government, citizens, NGOs, CSOs, customers, businesses, employees, and governmental institutions.

Furthermore, the very nature and function of E-governance necessitates a network strategy to bring together talents, technologies, information, and knowledge that cut across governmental boundaries. In most cases, finding all of them in a single government department is impossible. The need for learning and training, for example, requires a partnership between government

agencies/departments and universities or research institutions, private sectors and NGOs.

6. Improve the quality of decision making:- E-governance has a potential of linked community creation, forums, continuous interaction and communication between government and its citizens and other stakeholders contribute to the decision making process. By means of active participation in political and government discussions, citizens can contribute their own ideas, and share their knowledge and information.

As a result, trust in government has increased, and relationships between the government and the governed have improved.

7. Encourage the use of ICT in different areas of society: - The government's ongoing involvement and communication with its stakeholders helps to raise awareness about the potential contribution of ICT to local community activities.

In this approach, e-governance is critical not only for allowing market-led initiatives, but also for commencing the capability-building process and coordinating the actions of a wide number of stakeholders. Electronic equipment must be used by the business in order for a G2B electronic transaction to take place.

### **2.2.2.3 Potential Benefits E-government's**

1. Improves investor confidence: Government transparency improves investor confidence, which leads to higher foreign direct investment in the long run.

2. Aids the private sector: E-government aids the private sector, particularly SMEs, by lowering the amount of time and money required for firms to interface with the government.

Furthermore, through simplification of government processes and services such as online procurement, the government can reduce barrier to entry for new businesses and also increase competition.

3. Allows for government decentralization: Data held in digital format may be updated and viewed from nearly any workplace within a networked system, making decentralization of government easier.

4. Allows greater scope for integration: Digital storage of data and software applications allow greater scope of integration of activities of different government offices as data can be shared easily and efficiently.

5. Allows learning from the past: Since E-government allows data to be stored and from past projects can be easily used for new retrieved easily, experiences and statistics similar projects.

- A) Citizens' direct benefits (tangible) and citizen indirect benefits (intangible) are the two types of E-government benefits (George and colleagues, 2011)
- Direct advantages are concrete benefits that may be measured in dollars, such as lower transaction costs, faster transaction processing, and high-speed accessibility.
  - Reducing the amount of time that customers spend traveling to government offices  
Reduced client wait times and reduced face-to-face interactions
- B) Indirect advantages to citizens are benefits that are difficult to see but can nonetheless be received. Examples of citizen indirect benefits are:
- Being user friendly with service provider and easy to use of services
  - Easy to find information and Convenience and availability (24 hour/day, 7 days/week)
  - Keeping customers' personal and financial information protected etc.

### **2.3 Services through E-Governance**

Today government introduced E-Governance in every field. Every field, such as urban, rural, teaching, and politics, has demonstrated the inevitability of e-governance. E-governance is used by every department and sector. In remote places, e-government has a significant impact.

Government-to-Citizen (G2c) E-Government Services: The services given by the government to citizens are included in this model. This paradigm depicts a close relationship between the government and the people. Citizens make use of the government's various services. Citizens can communicate with the government at any time, from any location, using appropriate channels such as the internet, fax, phone, and email. The fundamental goal is to enable citizens to benefit from efficient public service delivery while also making government more citizen-friendly.

The services supplied by the G2C model are as follows:

- ❖ E-Citizen: build a number of service centers to provide a variety of customer services such as the issuance of Ration Cards, Certificates, and Passports, as well as the online filing of FIRs and the payment of online bills such as electricity, taxes, water, and telephone bills. These facilities function similarly to government-run shops in terms of offering government services.
- ❖ E-Medicine: It makes multiple hospitals and better medical services available online in various sections of the country.
- ❖ E-Education: The government uses E-Education to launch a slew of projects aimed at educating individuals and upgrading their knowledge via the use of various information technologies. E-Transport offers a variety of services, including vehicle registration,

driver's license issuance, challan and tax payment, and pollution control.

- ❖ E-Registration: reduces the paper work for registration and transfer of properties and stamp duty. It reduces the duplication of entries and increases the transparency in work. The G2C model's principal goal is to provide all government services to its inhabitants. The G2C approach was successful as long as all citizens were informed about all government activities. Journalists, civil officials, and political opponents usually keep a careful eye on government spending. The government collects public feedback in order to improve government-citizen interactions.

Government-to-Government (G2g) E-Government Services: E-Administration is another name for it. Services are shared across governments in this paradigm. Various government agencies, groups, and departments communicate information.

The G2G model includes the following services:

- ❖ E-Secretariat: offers the state with a wealth of useful and practical information. Multiple departments are intimately linked on the internet and share information from diverse components in E-Secretariat. It also connects the headquarters and state capitals of all government departments.
- ❖ E-Police: aids citizens' feelings of safety and security. Two databases are maintained by E-Police. The first database contains information about police officers' current and former postings, among other things.

These databases assist citizens in locating police officers' specializations in terms of geographical locations and talents. The criminal records database is the second database. When you type a criminal's name into this database, you'll get all of his information. Prior to that, he develops activities and operates in a specific region.

- ❖ E-Court: Shell launches a revolution in Indian pending court cases via E-Court.

There are countless pending cases in India that are causing customers and the system to be frustrated. Judges with component-raised data bases can study appeals from the intranet and make rulings online based on the documented facts of the case, reducing the backlog of cases.

The success of the G2G model is dependent on several key factors, including expenditure, network setup, planning, monitoring, and regulating human and financial performance.

E-Government Services from Government to Employees (G2e): A government-to-employee paradigm that examines the relationship between the government and the people who work for it. Personnel can monitor and oversee government operations, and the government can assess the performance and efficiency of its employees.

With this model, employees could be aware of their benefits and responsibilities. This model strengthens and accessibility of the employees in the governmental organization. This model share the important information like attendance record, employee record, complaints, employee salary, working record and all kind of rules and regulations etc.

E-Governance Services from Government to Business (G2b): Governments to business model establish connection between private sector and government sector.

Important information is sent between government and corporate groups, such as tax collection, bill payment and penalty payment, and rule and data sharing. The service provided by the G2B model is as follows:

E-Taxation: Business groups provide various services to the government in the G2B model, such as obtaining licenses, paying bills and taxes, filing complaints/dissatisfaction, patent rejection and approval, and so on. The viability of the G2B model depends on electronic transaction standards and secure above truncations to enable payments through the electronic medium.

## **2.4 Ethiopian Revenue Authority (ERA)**

The Ethiopian Revenues and Customs Authority (hence the "Authority") is now constituted as an autonomous federal government entity with its own legal personality, according to Federal Negarit Magazine. The Prime Minister will be held responsible for the Authority's actions. The Authority's headquarters will be in Addis Ababa, with branch offices, tax centers, and customs check stations as needed.

The Authority's goals are to establish a modern revenue assessment and collection system, as well as to provide customers with fair, efficient, and quality service; to encourage taxpayers to voluntarily discharge their tax obligations; to enforce tax and customs laws by preventing and controlling contraband, as well as tax fraud and evasion; and to collect tax revenues in a timely and efficient manner.

The Authority will have the authority and responsibilities to: establish and implement a modern revenue assessment and collection system; provide efficient, equitable, and quality service within the sector, based on rules of transparency and accountability; properly enforce tax exemptions given to investors and ensure that such incentives are used for the intended purposes; conduct study and research activities with a greater emphasis on improving the enforcement of customs and tax laws, regulations, and directives and the collection of taxes; conduct valuation of goods for the purpose of tax assessment and determination and collection

of taxes; conduct study and research activities with a greater emphasis on improving the enforcement of customs and tax laws, regulations, and directives and the collection of taxes; collect and analyze information necessary for the control .of import and export goods and the assessment and determination of taxes; compile statistical data on criminal offences relating to the sector, and disseminate the information to others as may be necessary; organize a training center wherein to build employees' capacity; and design appropriate training schemes; Examine commodities and modes of transportation entering or leaving Ethiopia via customs ports, border crossings, and other customs stations, and ensure that all customs formalities are followed; and provide information and appropriate support to the Federal Police in the control of illicit trafficking of goods and combating contraband; and cause appropriate actions be taken in accordance with the law.

The Authority have: a Director General and Deputy Director Generals to be appointed by the Prime Minister; prosecutors to be appointed by the Director General; and the necessary staff. The Director General shall be the chief executive officer of the Authority and, as such, shall direct and administer the activities of the Authority. Deputy Director Generals, subject to directions given from the Director General, shall; and The Deputy Director General who is specifically delegated shall act on behalf of the Director General in his absence (Federal Negarit Magazine).

## **2.5 E-Governance Services practiced by ERA**

Electronic tax system is a system that has been developed to replace manual system. It is a web-enabled and secure application system that provides a fully-integrated and automated solution for administration of domestic taxes. It allows taxpayers to register for tax, file returns, and register for payment to allow for tax payments and status enquiries, as well as real-time account monitoring (Waweru 2013).

A number of authors have sought to define the term tax; nonetheless, it is difficult to conclude that their efforts have been successful (mainly owing to the fact that too great precision is attempted in a single sentence). The best method to comprehend the phrase is to first define what a tax is and then to list its main aspects.

As a result, tax can be characterized as a contribution made by individuals from their private property for the maintenance and defense of government, allowing it to carry out its tasks and achieve the goals of the state (Misrak, 2008). Tax is described as 'a compulsory levy imposed by the government or another tax-raising agency on income, expenditure, or capital assets for which the taxpayer receives nothing specific in return' (Lymer, et al.2009).

Tax administration is a complex and ever-changing task. New concerns, competing goals, taxpayer compliance, and emerging commitments confront leaders on a daily basis (Thomson, 2008). According to Berhan and Jenkins (2005), developing-country governments are eager to construct contemporary tax systems despite having inadequate tax administrations, and have experimented with tax administration procedures that increase private-sector compliance costs.

E-tax filing, according to Chang and Hung (2005), is a mechanism for submitting tax paperwork to the tax department over the internet or a direct link, usually without the need for paper documents. Various tax return preparation softwares with e-tax filing features are available for commercial use as standalone applications, on websites, through tax experts, or from major software suppliers. “e-file” refers to electronic filing, which is emailing your tax return to the IRS via the Internet using tax software.

Chanchal, et al. (2013) defined e-filing as the process of submitting tax electronically in their study of the satisfaction level and knowledge of tax-payers towards e-filing of income tax returns in Moradabad city. Taxpayers no longer have to line for long periods of time, nor do they have to wait for their returns to be processed. The Tax Authority has created customized forms that are available on the website.

These forms are made of such information to the detail that tax payers are not expected to have documents on. McCarten (2014) emphasized that for large tax payers in order to accomplish its intended goal/purpose, countries should work towards, among other strategic interventions, reducing the potential for corruption by automating and restructuring control systems; and simplifying and reducing paper handling through appropriate use of electronic filing. Electronic tax payment is first coined in US and implemented in this country.

Australia was one of the first countries to adopt the system (Turner and Apelt, 2004). Electronic taxes have now been implemented in far too many countries. Because electronic taxes vary by country, the name of the system also varies. In international literature, electronic declaration is referred to as electronic tax filing (Gellis, 1991).

E-tax payment is also called online taxation payment (UN, 2007) or e-tax lodgment (Turner and Apelt, 2004).

### **2.5.1 Electronic Registration (E-Registration)**

Registration is a major public service delivered by the Revenue authority. It includes registration of all types of instruments, registration of societies, partnership firms and administration of the duties related to stamp and stamp duty.

State government have notified 16 (sixteen) registration services as public services Right to Public Services (Act, 2012). Property registration, issuing of Encumbrance Certificates / Certified Copies, registration of Partnership Firms/Societies, marriage registration, and other services are among the most significant.

Government has implemented an e-Registration System in the state as part of an e-Governance push to speed up the registration process and ensure effective, hassle-free, and timely delivery of registration services. There are many E-registration features. The following are the most typical e-registration features:

- Automated property valuation and market value configuration
- Maintain all records in a central repository that is digitized, compressed, and encrypted.
- Stakeholders are notified through SMS.
- Integration with a database of land records
- Encumbrance Certificate (EC) and Certified Copy (CC) issuing online
- Registration of a partnership firm and a society can both be done online.
- Authentication via the internet Forms are automatically transmitted.
- Integration of a payment gateway with the ERA Treasury Portal
- The parties' digital photos and biometric fingerprints are captured.
- System for central helpdesk and call management

### **2.5.2 Electronic Filing (E-Filing)**

E-filing is defined as the communication of tax information directly to the tax administration over the internet for the purposes of this article. (1) Online, self-prepared return utilizing a personal computer and tax preparation software, or (2) online submission of returns using a tax professional's computer and tax preparation software are the two electronic filing alternatives.

Electronic tax filing, sometimes known as e-filing, is a mechanism for electronically sending tax records to a revenue service, generally without the need for paper documents. Electronic tax filing systems are a type of e-government application that is becoming more popular around the world. Governments benefit from such systems because they eliminate many of the errors that taxpayers make in manual filings and help to prevent tax evasion through data matching (Manly et al, 2005).

The data warehouses created with electronic tax filings can help tax inspectors study statements more completely and policymakers build more equitable and effective policies. (Kun and colleagues, 2008).

In both developing and developed countries, government services have been associated with bureaucracy for a long time. Weberian bureaucracy emphasizes efficiency in all procedures and emphasizes organized hierarchy, establishment of standardized and impersonal procedures, formal division of labor and responsibility, and formal division of labor and duty (Kun, et al,2008).

Every country has bureaucratic governmental institutions, and while many commercial companies are heavily influenced by bureaucratic principles, their effectiveness varies greatly. Regardless of the bureaucracy's efficiency, the availability of computers to people from all walks of life has provided them with greater and easier access to government services. Furthermore, governments can deliver services in the original positive sense of Weberian bureaucracy using the Internet and computer technology. To put it another way, e-government can make public service delivery more standard, impersonal, efficient, and convenient for both the service supplier (the government) and the service recipient (the public) (the citizens). A government agency can be a service recipient of an e-government service in some instances.

In terms of economics, people' capacity to access government services at any time and from any location helps to reduce the transaction costs associated with all forms of government services. (Kun and colleagues, 2008).

For e-government maturity, Layne and Lee (2001) suggest a four-stage model:

- ❖ Catalogue:-Online presence, catalog presentation, and downloadable forms are all included in the catalog.
- ❖ Transactions:- Online services and forms, as well as a working database to facilitate online transactions.
- ❖ Vertical integration refers to the connection of lower-level systems to higher-level systems.
- ❖ Horizontal integration: Systems that are connected across several functions, providing citizens with a true one-stop shop. Although the model is based on e-government experiences in the United States, the authors claim that it can be applied to other countries at different levels of development.

Belanger, et al. (2006) claim that a web site's success criteria vary based on the aims it seeks to achieve, such as selling, informing, or advertising.

The writers go on to say that web site success is audience-specific, and that it should take into account a variety of user and owner perspectives. It should be emphasized that these viewpoints might sometimes be antagonistic. In electronic tax filing systems, for example, users are

frequently hesitant to pay tax, while the site owner (government) is eager to collect it.(Fu, et al, 2006)

Modified the technology acceptance model (TAM) to include Theory of Planned Behavior elements like subjective norms, self-efficacy, resource facilitating conditions, and technology facilitating conditions in their research for an electronic tax filing system in Taiwan. The same authors (Fu, et al, 2004) compared user satisfaction with the three types of tax filing in Taiwan (manual, two-dimensional barcode, and web-based) using parameters such as ease of data entry, correction, operation, learning, and data submission, explanation completeness, filing form neatness, and total filing time.

Electronic tax filing systems can be evaluated in terms of usability, design, and performance, including download latency, navigability, site content, interaction, responsiveness, user satisfaction, likelihood of returning to the website, and frequency of usage, according to (Palmer, 2002). According to (Harold, 2011), computer-generated returns that are transmitted electronically are generally easier to process than paper returns because the information on the forms does not have to be keyed in by IRS staff, number by number, into the Service's computers, and thus there is less chance of errors.

Electronic transmittal is immediate, avoiding the inconsistencies of the postal system, and the client receives confirmation from the IRS within a day or two that the return was not only received, but received correctly. However, based on American experience, the largest benefit of electronic tax filings for taxpayers is that it reduces refund processing time from an average of 12 weeks to around 3 weeks.

Repayments can even be deposited directly into taxpayers' company accounts. Some vendors who provide electronic filing services for tax preparers also provide a service where clients who are due a tax refund can apply for an instant company loan equal to the expected IRS check as an added incentive. As a result, within three days of filing, a client could obtain a refund (less company and preparation expenses) (Harold, 2011).

The E-tax filing system, which ERA has been deploying for both large and medium tax payers, was established in 2009 by CRC Sogema, a Canadian consulting firm, with funding from the Investment Climate Facilitation for Africa (ICFA) (ICF). There are two ways in which e-tax filing can be accessed; by directly using the authority's website and authenticating through two security layers and declaring tax (Fortune, 2015). The World Company Doing Business (2014) said that, on the online service delivery status ERA is in its premature stage.

Still, the need for manual reporting and appearing to a tax office is unavoidable. According to

AtoBirhanu, Head of Customers Education and Support Team Coordinator, interview with ERA's official monthly newsletter, e-Tax has the capacity to provide internet/online services via ERA's website or a dedicated website: [www.etax.gov.et](http://www.etax.gov.et).

If used at full capability, e-Tax is expected to provide services such as online tax registration (e-Registration), online monthly and annual tax declaration (e-tax filing), online possibility to effect payment through an option called Company Interface, online tax clearance and tax refund request service (Online e-Service) and online correspondence that help tax payers to request questions and clarification from ERA.

The tax authority, on the other hand, should be able to demonstrate that the taxpayers are capable of using this technology. According to ERA, providing e-tax training to tax payers is an essential step in assisting them in properly carrying out any activity in their individual firms. People prepare their returns by answering a few easy questions posed by the system and then documenting their responses in a straightforward step-by-step manner.

Apart from that, people do not need to be aware of the tax laws or to recall the numerous subsections of the tax laws.

### **2.5.3 Electronic Payments (E-Payment)**

A payer and a payee (or buyer and seller) who trade money for goods or services, as well as at least one financial institution that links "bits" to "money," are always involved in commerce.

The latter job is separated into two pieces in most present payment systems: an issuer (used by the payer) and an acquirer (used by the payee). A movement of actual money from the payer to the payee, via the issuer and acquirer, is used to conduct electronic payment from payer to payee. Before a purchase is performed in a prepaid cash-like payment system, a certain amount of money is removed from the payer (for example, by debiting that amount from the payer's company account). This sum of money can be utilized for future payments.

This includes card-based electronic purses, electronic currency, and (certified/guaranteed) business cheques. Buying an electronic ticket using your cell phone, paying for an article with a click of your mouse, settling an auction purchase with your e-mail account. People's electronic payment alternatives are growing more sophisticated, resulting in new options for moving (or even depositing) money.

Payment services that are innovative strive to appeal to new markets and demands. They may offer greater convenience, greater flexibility, faster transaction speeds, and/or lower fees than traditional payment methods. They must, however, compete with legacy systems and adhere to

norms and regulations that vary widely from country to country.

Payments innovation is always tied to distinct backgrounds, whether outside and within the European Union's common market, and even within the Eurozone's single currency area: it solves the diversity of demands and limitations of grown infrastructures. Payment innovators who can provide solutions with a significantly favorable profile have a possibility to overcome the inertia of long-standing payment habits and/or procedures.

Many alternatives, however, fail to reach a critical mass of consumers — perhaps with the exception of monopolistic infrastructures and services that have the ability to control how people pay. The e-Payment System Observatory, which has been run by the European Central Bank since 2003, focuses on the prospects for and obstacles faced by innovative payment systems, as well as their potential contribution to European market integration (ECB, 2005).

Payments can be made on-line, with an authentication and authorization server (typically part of the issuer or acquirer) involved in each transaction, or off-line, with no communication with a third-party. The most obvious issue with off-line payments is preventing payers from spending more money than they have.

A dishonest payer can easily reset the local state of his system after each payment to the state before the payment in a totally digital environment. As a result, off-line payment systems that prohibit (rather than just detect) double-spending at the payer end require tamper-resistant hardware, such as smartcards.

At the payee end, tamper-resistant hardware, such as security modules of point-of-sale (POS) terminals, is frequently employed — it is required in shared-key systems and when the payee does not relay individual transactions but simply totals.

#### **2.5.4 Electronic Issuing Assessment (E-Assessment)**

In simple words, 'E-Assessment' means the use of digital technology in data mining, data processing and data analytics and electronic modes of communication/interface in tax administration systems including tax assessments so as to eliminate the requirement of personal/physical interface between the assessed and the assessing authority.

E-assessment is a term used to describe assessment methods and procedures that stress the use of technology in measuring and giving assessments. Computer technology has been used in educational assessment for decades. In the 1970s, computers were first used for evaluation in order to lessen the labor of human raters.

Assessment has improved in tandem with technical improvements since then. Because of its

simplicity and precision, computer-based assessment has become used in large-scale assessments such as language testing and college entrance examinations.

Although the terms "computer-adaptive testing" and "web-based assessment" are sometimes interchanged with "computer-based assessment," they represent two distinct types of computer-based assessment. To put it another way, computer-adaptive testing places a greater focus on nonlinear item selection by quickly assessing the examinee's aptitude based on past responses.

Web-based assessment is a type of computer-based testing that is usually delivered using online learning management systems. Although developments in computer-based assessment provide the technological foundation for e-assessment, the present focus in e-assessment is on exploring the possibilities of rich digital media such as web 2.0 tools and video games, which are becoming increasingly popular. The term "assessment procedure" has been a hot topic for years.

There has been debates on the assessment procedure, it's complexity, transparency and approach. With an objective to bring more transparency and faster process, the finance ministry has notified the e-assessment scheme 2019 for conducting faceless scrutiny assessment of income tax returns.

In connection with any proceedings under this Scheme before the income-tax authority at the National e-assessment Centre, Regional e-assessment Centre, or any unit set up under this Scheme, a person shall not be obliged to appear either physically or through an authorized representative. The standards, methods, and processes for the National e-assessment Centre, Regional e-assessment Centers, and unit set-up shall be established by the Principal Chief Commissioner or the Principal Director General in charge of the National e-assessment Centre.

## **2.6 Review of relevant studies using empirical evidence**

### **2.6.1 Global empirical review**

**Global Empirical Analysis** In the literature, several advantages of using an electronic file system has been explored. In a study on the adoption of tax e-tax filing in Malaysia, Anna and Yusniza (2009) found that e-tax filing allows clients to perform transactions with just a few mouse clicks. This ease of use could be a major factor in the adoption of electronic tax filing.

E-tax filing provides taxpayers with numerous features of 'convenience' that are not available through traditional channels (such as time to file, location to file, ease-of-use, information searching, and online transactions). Access is available 24 hours a day, seven days a week, and 365 days a year. E-tax filing also gives taxpayers more time flexibility and avoids calculation

errors on their tax return forms.

Furthermore, Goolsbee (2002) states that service providers, such as tax authorities, profit from e-tax filing. Due to the submission of tax returns in a paperless environment, e-tax filing reduces the service provider's workload and operating costs. It also lowers the cost of tax return processing, storage, and handling.

In addition, as Moyi&Ronge (2006) affirmed on their study on Taxation and Tax Modernization in Kenya, e-tax filing enhances administration through measures such as entrusting sensitive negotiations to special teams; minimizing contacts between tax payers and tax collectors and reducing the discretionary powers of tax officers; setting up supervisory systems with at least three hierarchical levels to reduce benefits for collusion; and devise incentive systems that match public and private interests.

E-tax filing systems improve the quality and quantity of information available to tax officials, allowing them to execute transactions faster and more precisely, according to Joanna (2014) in her study on introducing electronic tax filing and payment in Malaysia. Electronically filed returns have far lower error rates than paper returns, reducing the need for penalties and other punitive measures to encourage compliance.

Tax officers can deliver assessments and refunds more rapidly thanks to the more efficient handling provided by electronic returns, and taxpayers can see right away if their returns have been accepted by the tax authorities. E-tax filing reduces the cost of processing returns, freeing up administrative resources for duties like auditing, customer support, and tracking non-compliance.

In Bangladesh, (Aminuzzaman, 2010) conducted a study about Public Service Delivery among Local Authorities in Bangladesh and found that some of the critical institutional challenges facing public service delivery include limited manpower and resources. The study did not focus on revenue authorities and the public service delivery they offer. (Sarshar and Moores, 2006) conducted a study in the UK and found that lack of strategic awareness, lack of capacity, poor performance monitoring and poor coordination processes were major challenges that hindered public service delivery. Amitabh et al. (2009) did a study on the antecedents of paperless income tax filing by young professionals in India. The goal of this research was to see how young Indian professionals react to paperless or online filing of tax returns in order to improve compliance. According to the results of the regression analysis, the antecedents of young Indian professionals were perceived ease of the tax system, personal innovativeness in information technology, relative advantage, filing service performance, and compatibility.

The findings have implications for the current study in that any online system, whether for small, medium, or large taxpayers, must be simple to use, innovative, and accessible in order to thrive. A survey on Integrating ICT Skills and Tax Software in Tax Education was conducted in Malaysia by (Ling and Nawawi 2010). The study's participants were tax professionals, and the goal was to determine the abilities needed for taxpayers to adequately utilize an online tax system.

A taxpayer needs three abilities to interact well with a technology-based tax system, according to the study: spreadsheet software, word-processing software, and e-mail. The findings of this study have implications for the current study in that while evaluating the effectiveness of an electronic filing system, it is important to remember that users of the system must have certain abilities.

As evidenced by the failure to evaluate such skills, the system's objective may not be accomplished (Maede, 2002). He verified that after three years of deployment, just 20% of the targeted taxpayers were able to use the new online system, despite the Malaysian tax authorities investing much on it.

This was attributed primarily to a lack of basic user abilities such as computer literacy, but taxpayer behavior also had a part. Various studies have been conducted in Kenya, particularly by the Kenya Revenue Authority, on the subject of technology and tax compliance, with a focus on tax filing (Muita and Makanga, 2010). Makanga (2010) conducted research in Kenya on the use of technology as a strategic instrument for improving tax compliance.

Large Taxpayers were included in the case study, which comprised enterprises with a turnover of Kshs. 750 million or more, as well as government agencies and corporations. The study's goal was to assess the influence of technology in enhancing tax compliance among major taxpayers in Kenya. The survey discovered that in today's fast-paced business world, technology has become an integral aspect of any company's growth.

Either KRA or Large Taxpayers must embrace modern technology to enhance efficiency in tax compliance.

### **2.6.1.1 Local (ERA) Empirical Review**

According to (Samuel, 2015) the economic imperative of ICT on public agencies is becoming paramount. Accordingly, ERA has been automating its tax assessment and collection systems, which it claims assist to achieve increase in its tax revenue.

This increase, however, is reported to be low compared to the tax base of the economy. Other

studies have also revealed high administrative burden for paying taxes and noncompliance to tax laws that result for the country to lose millions of incomes from tax revenue.

The study aimed to examine how well e-Government is recognized and comprehensively rolled out as a strategic tool to solve such drawbacks on existing tax administration systems at ERA LTO. ERA has been investing to reform its tax administration system. However, the changes made are not harmonized with the national e-Government plan, focusing only to reach around 1,000 large tax payers (than its potential capacity to expand the tax base), not striving towards bringing holistic e Government, and is mostly piecemeal.

The overall level of satisfaction of large taxpayers on ERA's website as a primary source of one-stop-shopping portal is also found to be only 52%. In terms of the stage of e-Government, ERA is found at its emerging stage where most of its e Services are informational (static) than transactional. Benchmarking of its e-Services with selected Sub-Saharan African countries has also revealed that a lot has to be done for ERA to evolve its eService to a stage where all its services are integrated in seamless manner; fiscal transparency is enhanced; knowledge management (for example to control tax evasion) is optimized; and e Payment augments e-Filing.

To address these findings, the study suggests a more substantial transformational change, rather than simply automating existing processes, to move towards the higher phases of e Government, guided by a comprehensive e-Government strategic plan. Natnael, I'd like to introduce you to Natnael (2015) Modern tax administrations streamline processes, provide information, education, and help to taxpayers, and focus their limited compliance monitoring and enforcement resources on the areas that pose the greatest danger to revenues.

Efficiency of tax administration is defined as costs, tax clearance time and effectiveness of revenue collection. However, the systems are tied with challenges because of lack of awareness creation from the side of authority, incapacity of supplier for the sales register machines, lack of awareness in implementing tax automations from the side of the taxpayers.

The objective of this study is to assessing the challenges faced by both taxpayers and tax administration in implementing the tax automation by investigating the performance of tax collection and tax assessment by use of information technology systems of sales register machines, E- taxing, by use of purchase declaration system and SIGTAS in the large tax payer office of ERA. Ruta, (2017)

The study focused on assessing E-tax filing system in selected branch offices of Ethiopian Revenues and customs Authority (ERA). To achieve this objective, a review of relevant

literature was done and primary data were gathered using a Likert scale questionnaire format. Data analysis was carried out using descriptive analysis.

Findings revealed challenges like taxpayer's attitude, taxpayers fault and governmental problems and benefits which include data handling, accuracy, job performance and tax compliance. In addition, the study found out that E-tax filing system and tax compliance has a positive relationship. The study recommended the organization to improve internet connection by collaborating with Ethio-telecom as well as to create awareness about the system and provide electronically payment system.

The notion that taxes is necessary for long-term economic development and tax administration a fundamental function of a successful state, motivates tax authority's to improve tax collection and administration. The study looked in to the adoption of e-taxing by Ethiopian tax revenue authorities, as well as the barriers that may prevent them from taking advantage of the technology and the expected benefits in doing so. The research was based on information gathered from Ethiopian tax revenue authorities particularly the WolaitaSodo local tax revenue authority.

The sample was taken from the target one using a procedure known as purposeful sampling. The study issues that arose from a review of existing literature and researcher's experience with Ethiopia's taxing system were addressed using a mixed research approach. Data from the survey questionnaire and interview were statistically evaluated for the study. The study found that recurrent power outages, low levels of computer literacy among Ethiopian taxpayers, lack of sufficient government care influencing taxpayer willingness, and lack of unvarying platform by tax authorities for the acceptance and growth of e-taxing technology in Ethiopia are the major barriers that Ethiopian tax authorities face in adopting electronic taxation.

In the area of e-taxing, there is a lack of organization, communication, and teamwork between tax revenue agencies and other decision making bodies such as ETC and EELPA/centers, as well as a legal framework for e-taxing implementation and expansion in Ethiopia. E-taxing aims to improve customer satisfaction by adopting to rapid changes in customer/ taxpayers need and preference, e-taxing aims to improve customer relationships and e-taxing aims to cover a large geographical area for the development of e-taxing technology, increasing tax revenue authorities' productivity. As the driver of Ethiopia's adoption and development of e-taxing system, it reduces the work load of decision-makers, eliminates paper work and HR requirements, and increases productivity in taxing authority.

The report suggests that all tax revenues authorities' staff and management bodies' work together to build e-taxing technology by investing in ICT infrastructure, setting clear goals, and focusing on technological advance for country's globalization.

## 2.7 Conceptual Framework

Based on the purposes of the research and review of the existing literature regarding the relationship between e-governance and service provision of public organizations in the case of ERA, the study has developed the following framework that is expected to explain the relationship in the study area. The following figure depicts the connection between the independent and dependent variables, service provision of the study.

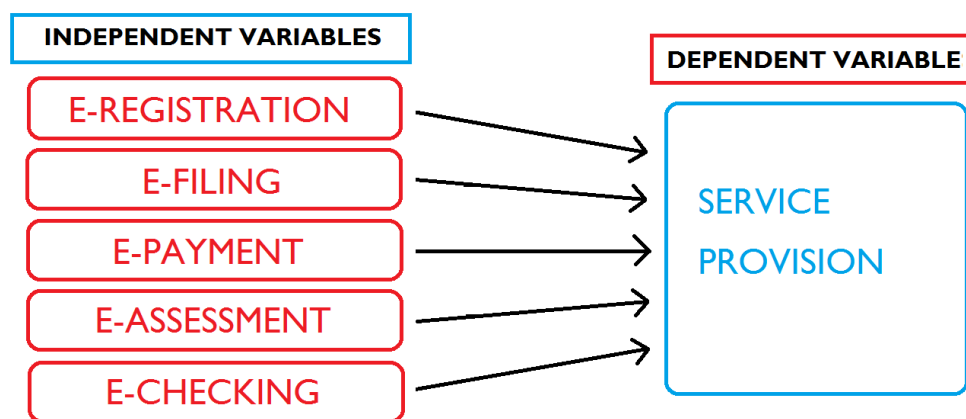


Figure 1: Conceptual Framework

Source: Developed by the Researcher

Chapter two discussed the relevance literature review. the chapter discussed the theoretical and empirical review of the literature of different publications. It states that critical transformation areas are in the organizations internal, external and relational aspects of the implementing organizations. The main objective of the e-governance is to further facilitate and improve service provision. Mainly, efficiency, improved services, increased citizen participation, decreasing corruption, response, empathy, reliable and assurance are key features in related to e-governance service facilitation. e-governance implementation in ERA in particular is discussed and back ground of the service giving in the organization is reviewed in this chapter. The chapter concludes by discussing the conceptual framework. The following chapter discusses the ways and methods the study conducted.

# **CHAPTER THREE**

## **RESEARCH METHODOLOGY**

### **3.1 Introduction**

The previous chapter clearly identified the knowledge gap which together with the problem statement shown in chapter one necessitates the conduct of this research. This chapter provides the details of the research methodology.

While the study's primary aim is to examine the effect of e-governance on service provision in public organization. The research proposal and methodology section was clearly defined the research design, Approaches of the study, population and sampling design, Data type and sources, data collection, data analysis methods finally data validity and reliability method were intensively presented.

### **3.2 Research design**

A research design is nothing more than the framework for a study. The major research design for this study was an explanatory type of research design to assess the influence of e-governance on service provision in the case of ERA.

This study used explanatory research design to explaining, understanding, predicting and controlling the association between variables. By taking cross-section of the population relevant data was collected at one point in time. Then the study determined to what extent e-governance affects service provision. All relevant data were collected from a single point in time.

The direction of the linear relationship between the two variables as well as the intensity of the association between variables, were measured using correlation (Tabachnick and Fidell, 2007, p. 56-57). The Pearson's Correlation Coefficient was used in this investigation to determine the link between all variables. As it comes to the direction of the link, positive correlation means that when one variable rises, the other rises as well, whereas negative correlation shows an inverse relationship. (Pallant, 2007, p. 101).

Independent variables were employed as predictors or random inputs in regression models, whereas dependent variables were used as response variables in experimental research. Because x is the controllable variable and y is the variable that represents the random changes in the independent variables, there is no causality in sampling tests.

### **3.3 Research approach**

Methodology of Investigation Creswell (2003) discussed three types of research methods: quantitative, qualitative, and mixed methods. Because a mixed method approach was utilized in this study, the following paragraph will briefly outline the nature of the research methodology that will be used. The study was quantitative in nature, which is often associated with predetermined and highly structured data collection approaches like those utilized in this study.

As a result, the study employed an explanatory methods approach, in which the researcher collects quantitative data, analyzes the results, and then applies the findings to draw conclusions and make recommendations. The study used quantitative research, specifically survey research, which provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population, which includes a cross-sectional study using survey questionnaires for data collection with the goal of generalizing from a sample to a population (Fowler, 2008).

The research also follows qualitative research because; the research focuses on service provision.

Though the results of the service provisions of a particular organization can be measured and/or quantified, there are also elements of service provision in which the quality of the services provided are to be discussed. This and all, the research follows mixed research methods.

### **3.4 Sampling Design**

The study population/participants were all tax payers, paying their tax in large tax payer office (LTO).

There are about 3,750 tax payers based on fortune report of 2020. It is the portion of the study population by using Convenience sampling technique used for the study and the sample size is 97 respondents. The targeted respondents are declared their tax in large taxpayer office because large tax payers are obligated to declare their tax electronically and have the largest portion of tax paid to the country. It is assumed that the sample should have 90% reliability and a sampling error of 10% or 0.10.

Using the slovin's sampling formula, the maximum sample size is computed as follows:

Therefore,  $n = N / (1 + N (e^2))$

$$n = (3,750 / (1 + (3,750 (.102))) = 97.4 = 97$$

Where N is desired population

n: is sample size

e: is margin of error

### **3.5 Data Sources, Data Collection Procedures and Tools**

#### **3.5.1 Data Source**

In order to achieve the goal of the study, the study used both primary and secondary sources of data.

Based on the nature, scope, objectives and availability of time and resource, the researcher used questionnaires and secondary data source like books, documents, existing research papers, journals and publication, websites, other relevant journal.

#### **3.5.2 Data Collection Tools**

Primary data was gathered using a structured questionnaire. This method covered some customers of the respected firm.

A questionnaire is a type of survey was respondent's writes answers to questions posed by the researcher on a question form. The questionnaire was prepared to be inclusive of the constructs measured in the study. The questionnaire has three sections. The first section covered the demographic profile of the participants like age, sex, educational level and other background data.

The second segment uses a like it scale of 1 to 5 to indicate how much they agree or disagree with the sentences concerning the constructions being studied.

### **3.6 Methods of Data Analysis**

Frequency distribution was used to summarize the demographic information gathered from the respondents. The researchers employed inferential statistical analysis. As previously said, scale type questionnaires will be utilized as a data collection instrument, after which the scale type questionnaires will be analyzed using descriptive statistics, correlation, and specifically regression, and the research questions will be answered. SPSS was used to examine the data.

The standard deviation gives a dispersion of the data according to the variability of the data, and this offered generalization of the findings on the data in question.

### **3.7 Analysis of Reliability and Validity**

#### **3.7.1 Analysis of Reliability**

The degree of consistency of the results under the same settings is referred to as reliability. If the study needs to be repeated, it should be done the same way.

After compiling questionnaires filled out by respondents, those answers were imported to SPSS and Cronbach's alpha values were calculated to maintain a high level of reliability for primary data. The results were then double-checked to ensure that there were no errors. Questionnaires were filled out on the spot to get more credible answers and genuine comments from the respondents.

#### **3.7.2 Validity evaluation**

The degree to which a test is genuinely measuring what it is designed to assess is referred to as validity, also known as construct validity. It expresses how effective a test is in a specific context. If a test's validity is low, it's not measuring the content and skills it should. According to Kothari (2004), content validity refers to how well a measuring instrument covers the topic under investigation.

The content validity of an instrument is good if it contains a representative sample of the universe. It makes decisions based on judgment and intuition. It can also be determined by a panel of people who will judge whether or not the measuring device fits the standards, but there is no numerical way to describe it. The content validity of the research was confirmed based on this definition by the research advisor, who examined the suitability of the questions and the measuring scale. Discussions with fellow academics, as well as comments from the pilot survey, were also used to ensure that the questions were appropriate.

Only relevant papers and literature from academic, scientific, and marketing databases were used for secondary data in this study.

### **3.8 Ethical Considerations**

It is critical that ethical considerations be taken into account while developing the evaluation and data gathering plan. Consider the following:

**Confidentiality:** - refers to the fact that no personally identifiable information is made

available to or accessed by anybody.

**Anonymity:** - Anonymity is a more stringent form of privacy than confidentiality because the participant's identity is concealed.

While conducting the research, this study considers several ethical considerations. The participants in this research have the right to choose whether or not to participate. They also are informed of all aspects of a research task. Consumers were given the right to privacy about the information they provided. The participants name is never mentioned in any of the data presentation and it remain confidential.

The chapter discussed how the study conducted. The study conducted through explanatory research, used mixed research approach and used the slovin's sampling formula to determine the sampling population. The research also used both primary and secondary data sources. The demographic facts obtained from the respondents was summarized using frequency distribution. Inferential statistical analysis was used, Pearson's Correlation Coefficient was calculated and the data were analyzed using SPSS. The next chapter will discuss the analysis of obtained information through different analysis methods.

# CHAPTER FOUR

## DATA PRESENTATION AND ANALYSIS

### 4.1 Introduction

In this chapter, the data that are collected through the structured questionnaire are summarized and analyzed in order to realize the ultimate objective of the study. This chapter contained the data presentation, analysis and discussion of the sample population based on the primary data collected.

Frequency distribution was used to summarize the demographic information gathered from the respondents. Descriptive statistics, correlation, regression, and ANOVA were used to evaluate scale typed questionnaires, with regression being utilized to assess the study hypotheses and answer the research questions. SPSS was used to examine the data. There were a total of 97 questionnaires distributed. Only 96 of the 97 surveys were returned.

### 4.2 Statistical Analysis

Descriptive statistics are a set of short descriptive coefficients that summarize a data set, which might be a representation of the complete population or a sample of it. Measures of central tendency and measures of variability are two types of descriptive statistics (spread). This section presents the descriptive statistics of the data regarded.

#### 4.2.1 Group Demographic of Respondents

Regarding age distributions, respondents in the age range between, 30 and 39 amounted to 23% of the total respondents, while 68% were in the age group of 20 - 29 years of Age.

And of the remaining Respondents the 8% is taken by those between 40-49 years while above 50 years of age were the least respondent's percentage of the total sample with 1% of contribution. The age descriptive frequency is presented.

This implies most of the responders are below the age of 40, it constitutes about 87% of the total respondents.

Table 1: Age Group Distribution

Age Group	Frequency	Percent	Valid Percent
20 – 29	65	67.80%	67.80%
30 – 39	22	22.90%	22.90%
40 – 49	8	8.50%	8.50%
50 Above	1	0.80%	0.80%
Total	96	100	100

Source: SPSS Output (2021)

#### 4.2.2 Gender Distribution of Respondents

The table below shows the proportion regarding gender is evenly distributed. The female respondents constituted the largest share of the gender composition representing 57 (59.3%) while 39 (40.7%) were male, as shown on Table 2. This shows the largest numbers of respondents are female with 59.3%, while males constituted 40.7% of the total respondents.

Table 2: Gender Distribution

Gender	Frequency	Percent	Valid Percent
Male	39	40.70%	40.70%
Female	57	59.30%	59.30%
Total	96	100	100

Source: SPSS Output (2021)

#### 4.2.3 Education Level of the Respondents

Regarding educational level distributions, respondents in the Diploma and BA degree level got a share of 8% and 31% each. While, the highest frequency is seen on Certificate level which constitutes about 56.8%. Above degree level respondents were 4 with 3%. Most of the respondents were in an academic level less than MA / MSc, almost 97% of the respondent's

proportion.

Summary of educational level distributions frequency is presented in table 3.

Table 3: Education Level of the Respondents

Education Level	Frequency	Percent	Valid Percent
Below Diploma	55	56.80%	56.80%
Diploma	8	8.50%	8.50%
Degree	30	31.40%	31.40%
Above Degree	3	3.40%	3.40%
Total	96	100	100

Source: SPSS Output (2021)

### 4.3 Descriptive Analysis of Variables

The descriptive statistics of the independent variables and the dependent variable are displayed in the following results. Budget and expenditure management as well to the queries in the questionnaire are also mentioned.

#### 4.3.1 Descriptive Analysis of E-registration

The following table presents the questionnaire requests e-registration. As the mean of the result shows (Mean = 3.67), the majority are in level between agreement and neutral for the questions asked.

Most respondents almost agreed that the e-registration service provided is responsive (Mean = 3.92), on the contrary, most respondent are neutral about the e-registration service provided is reliable (Mean = 3.44). The following statements interpret the payment related data collected by the researcher.

- Another scenario proposed was that the e-registration service supplied has assurance, that the e-registration service offered is dependable, and that the e-registration service provided has empathy, with most respondents neither agreeing nor disagreeing.

Respondents responded to the following e-registration-related statements on whether they agreed or disagreed, and the mean of the respondents is presented. The table below has the

detailed information.

**Table 4: Descriptive Analysis of E-registration**

	Minimum	Maximum	Mean	Std. Deviation
The e-registration service provided is responsive	1.00	4.00	3.92	1.49
The e-registration service provided has assurance	1.00	5.00	3.64	1.27
The e-registration service provided is reliable	1.00	5.00	3.44	1.29
The e-registration service provided has empathy	1.00	5.00	3.62	1.12
		Mean	3.67	

Source: SPSS Output

### **4.3.2 Descriptive Analysis of E-filing**

The following table presents the questionnaire requests regarding e-filing. As the mean of the result shows (Mean = 2.91), the majority the respondents are neutral questions asked. While almost all statements are responded neutral, while the statement "The e-filing service provided is responsive" got most respondents to neutral to agreement with a cumulative mean of 3.69. Relatively, respondents also are in some agreement that the e- filing service provided is reliable. The following statements interpret the e-registration related data collected by the researcher.

Most of the respondents, agreed that the e-filing service provided is responsive, another scenario raised was the case that the e- filing service provided has assurance, the e-filing service provided is reliable, and most respondents disagreed for "the e- filing service provided has empathy".

Respondents gave their response to the following e-registration statements on the questions of agreement or disagreement, the mean of the respondent are shown. The detailed data is in the table below.

Table 5: Descriptive Analysis of E-filing

	Minimum	Maximum	Mean	Std. Deviation
The e filling service provided is responsive	1.00	5.00	3.69	1.25
The e filling service provided is assurance	1.00	5.00	2.84	1.38
The e filling service provided is reliable	1.00	5.00	3.18	1.44
The e filling service provided is empathy	1.00	5.00	1.92	1.52
		Mean	2.91	

Source: SPSS Output

### 4.3.3 Descriptive Analysis on E-payment

Table 6 shows, the data collected by questionnaire requests regarding e-payment.

The mean of the result shows (Mean = 3.22), the majority of the respondents were neutral on the statements stated in relation e-payment to the relationships with service provision. All statements were responded in accumulation around neutrality.

The statement "The e- payment service provided has assurance" got most respondents to neutrality than the rest of the queries, with a mean of 3.10. The following statements interpret related data collected through questionnaire by the researcher. Ambiguity between agreement and neutrality to the statements, "The e-payment service provided is reliable", and " The e-payment service provided has empathy", Most of the respondents, disagree that the overall the e-payment service provided is responsive, and Neutrality is observed for the statement " The e- payment service provided has empathy".

Respondents gave their response to the following e payment related statements on the questions for agreement or disagreement mean of the respondent are shown. The detailed data is in the table below.

Table 6: Descriptive Analysis of e-payment

	Minimum	Maximum	Mean	Std. Deviation
The e payment service provided is responsive	1.00	5.00	2.35	1.27
The e payment service provided has assurance	1.00	5.00	3.10	1.34
The e payment service provided is reliable	1.00	5.00	3.84	1.25
The e payment service provided has empathy	1.00	5.00	3.58	1.35
		Mean	3.22	

Source: SPSS Output (2021)

#### 4.3.4 Descriptive Analysis of E-assessment

The following table presents the questionnaire requests regarding e-assessment. As the mean of the result shows (Mean = 2.51), the majority the respondents are disagreed than neutral e-assessment related questions asked by the researcher through questionnaire. Almost all statements are responded neutral, while the statement "The e- assessment service provided has empathy" got most respondents to disagree to the statement with the accumulative mean of 1.32. Relatively, respondents also highly agreed that the e- assessment service provided is reliable.

The following statements interpret the e-assessment related data collected by the researcher. Most of the respondents, disagreed that the e-assessment service provided has empathy, and the e-assessment service provided has assurance, and the respondents were neutral that the E-assessment service provided is reliable and The e-assessment service provided is responsive.

Respondents gave their response to the following e-assessment related statements on the questions of agreement or disagreement, the mean of the respondent are shown. The detailed data is in the table below.

Table 7: Descriptive analysis of E-assessment

	Minimum	Maximum	Mean	Std. Deviation
The e assessment service provided is responsive	1.00	5.00	2.94	1.37
The e assessment service provided has assurance	1.00	5.00	2.53	1.32
The e assessment service provided is reliable	1.00	5.00	3.25	1.42
The e assessment service provided has empathy	1.00	5.00	1.32	1.52
		Mean	2.51	

Source: SPSS Output, 2021

#### 4.3.5 Descriptive Analysis on E-checking

Table 8 shows, the data collected by questionnaire requests regarding e-checking. The mean of the result shows (Mean = 3.20), the majority of the respondents were neutral on the statements stated in relation e-checking to the relationships with service provision. All statements were responded in accumulation around neutrality.

The statement "The e- assessment service provided has assurance" got most respondents to neutrality than the rest of the queries, with a mean of 3.08. The following statements interpret related data collected through questionnaire by the researcher. Ambiguity between agreement and neutrality to the statements, "The e-checking service provided is reliable", and "The e-checking service provided has empathy", Most of the respondents, disagree that the overall the e-checking service provided is responsive, and Neutrality is observed for the statement "The e-checking service provided has empathy".

Respondents gave their response to the following e-checking related statements on the questions for agreement or disagreement, the mean of the respondent are shown. The detailed data is in the table below.

Table 8: Descriptive Analysis of E-checking

	Minimum	Maximum	Mean	Std. Deviation
The e-checking service provided is responsive	1.00	5.00	2.33	1.27
The e-checking service provided has assurance	1.00	5.00	3.08	1.34
The e-checking service provided is reliable	1.00	5.00	3.86	1.25
The e-checking service provided has empathy	1.00	5.00	3.58	1.35
		Mean	3.20	

Source: SPSS Output (2021)

#### 4.4 Analysis of Scale Reliability

Cronbach's alpha was utilized to measure the internal consistency of the measuring items and a reliability test was undertaken to assure internal consistency of the research instrument. We employed 25 items to measure five variables in this study, and we discovered that the items are dependable. When developing a questionnaire, a reliability coefficient of more than or equal to 0.60 should be deemed appropriate.

As a result, a low coefficient alpha suggests that the sample of items captures the construct underlying the measure poorly. A large coefficient alpha, on the other hand, indicates that the items test closely correlates with the genuine scores.

Table 9: Reliability Statistics

Cronbach's Alpha	N of Items
.844	25

Source: SPSS output, 2021

Cronbach's alpha for dependability statistics of the data collected is 0.844, as seen in the table above. For the scaled variables, this is deemed adequate and permissible.

#### 4.5 Assumptions for Linear Regression Models

When someone decides to use linear regression to analyze data, part of the process entails

making sure that the data they want to study can really be analyzed using linear regression.

As a result, it is necessary to do so because linear regression can only be used if the required data "passes" four assumptions that are required for linear regression to produce a valid result. Let's see if the following assumptions are true or not. Multicollinearity, linearity, homoscedasticity, and normalcy are the four assumptions. SPSS software is used to verify the assumptions.

#### 4.4.1 Multi-Collinearity

The researcher has checked if multicollinearity problem exist or not before running the regression. Multicollinearity refers to the situation in which the independent/predictor variables are highly correlated. There is “overlap” or sharing of predictive power when independent variables are multicollinear. Multicollinearity can be checked using the tolerance and variance inflation factors (VIF) which are the two Collinearity diagnostics factors.

Table 10: Collinearity Statistics

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
ER	.758	1.319
EF	.704	1.421
EP	.669	1.495
EA	.766	1.356
EC	.722	1.282
SP	.751	1.332

Source: SPSS output, 2021

Tolerance is a metric that measures how much of the variability of a given independent variable is not explained by the model's other independent variables. It is calculated for each variable. If this value is very low (less than 0.10), it means that the multiple correlation with other variables is quite high, implying that multicollinearity is possible. As a result, the tolerance value for all independent variables is more than 0.1, indicating that tolerance does not have a

multicollinearity problem. The Variance Inflation Factor (VIF) calculates the impact of independent variable correlations on the precision of regression estimations. The VIF factor should not be more than ten, and ideally should be less than one.

According to the table above, the VIF value for all independent variables is less than ten and very close to one, indicating that there is no multicollinearity concern.

#### 4.4.2 Linearity

The purpose of the linearity test is to assess whether or not the connection between the independent variables and the dependent variable is linear. In correlation and regression analysis, the test is required.

There should be a linear relationship between the free variable and the dependent variable in a good regression model. If the sig. divergence from linearity is more than 0.05, the independent variable and dependent variable are linearly dependent. The primary assumption is that the errors' middling value should be zero. As Sekeran points out, U.(2003) This presumption will never be broken if the regression equation has a constant term. As a result, since the constant term (i.e.,  $\beta_0$  or  $a$ ) was included in the regression equation from the regression result table, this assumption seizes a good fit for the model.

Table 11: Residuals Statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.8319	5.0633	3.2029	.52545	96
Std. Predicted Value	-2.609	3.540	.000	1.000	96
Std. Error of Predicted Value	.040	.163	.078	.025	96
Adjusted Predicted Value	1.8105	5.0959	3.2046	.52653	95

a. Dependent Variable: SP

Source: SPSS Output, 2021

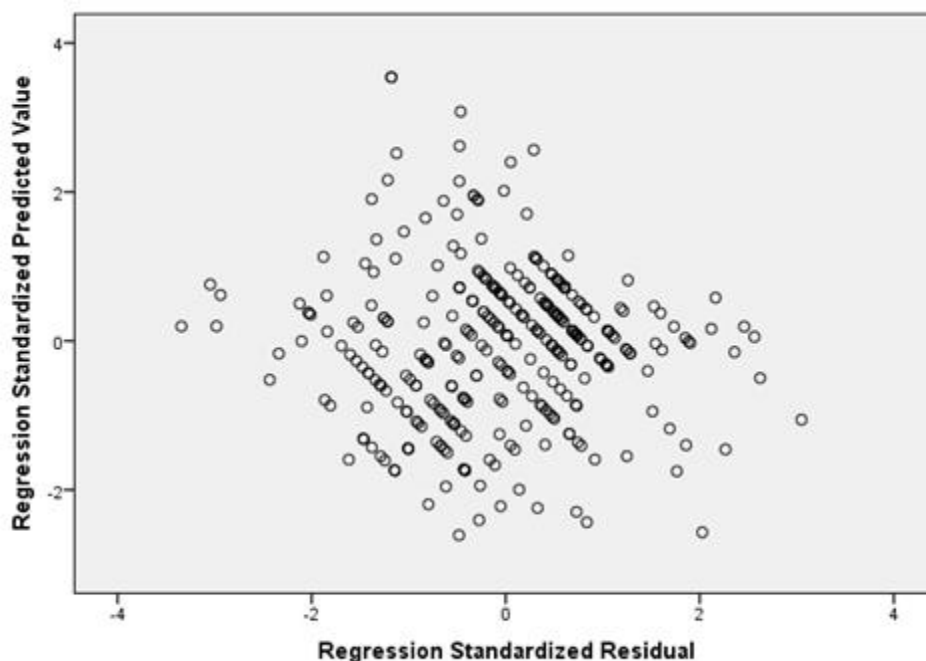
### 4.4.3 Homoscedasticity

It refers to a pattern of random variables. It is when the variance of all of its random variables is finite. This is also known as variance homogeneity. Heteroscedasticity is the complementary concept. The ambiguity of homoscedasticity and heteroscedasticity leads to unbiased but inefficient point estimates and biased standard error estimates, as well as an overestimation of the goodness of fit as evaluated by the Pearson correlation coefficient.

Heteroscedasticity is an organized blueprint in the errors where the variances of the errors are not constant. When the variance of the residuals is constant it is explained as homoscedasticity, which is desirable. To test for the absence of heteroscedasticity scatter plot test was used.

In this test, if the scatter plot output spot appears diffused and distributed, it can be concluded that the model doesn't occur to have heteroscedasticity problem. As presented below, based on the scatterplot output above, it appears that the spots are diffused and do not form a clear specific pattern. This leads to a conclusion that the regression model doesn't have heteroscedasticity problem.

Figure 1: Scatter Plot



Source: SPSS Output, 2021

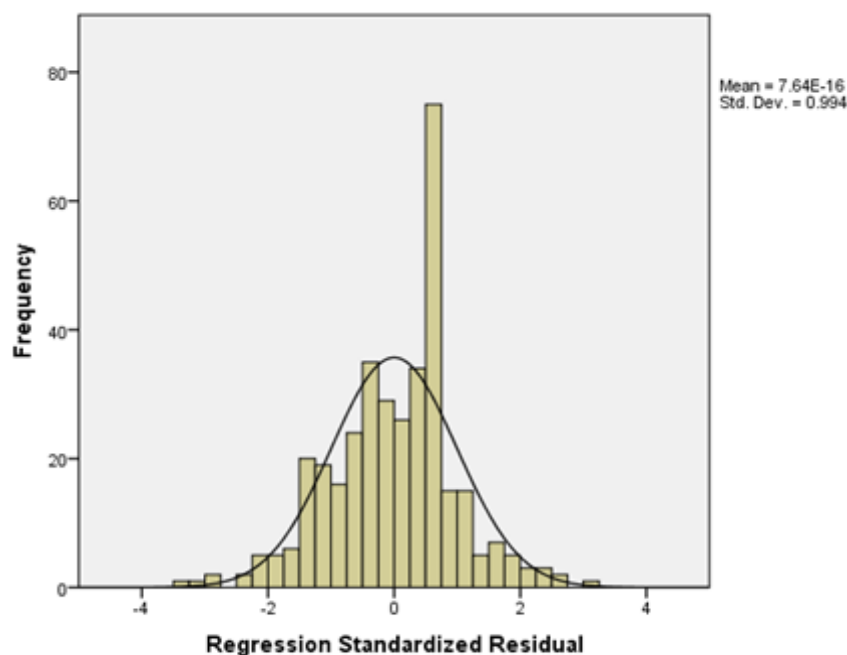
#### 4.4.4 Normality

Many statistical tests require a determination of data normality, as normal data is an underlying assumption in parametric testing. Normality can be determined in two ways: visually and quantitatively. Statistical tests have the advantage of being able to make objective normalcy assessments.

One of the numerical methods used to check normalcy is skewness and kurtosis descriptive statistics. In order to verify normal distribution, values of asymmetry and kurtosis between -2 and +2 are considered acceptable. Hence, as it is depicted in skewness and kurtosis statistics are within the range of -2 and +2, so that the assumption of normal distribution is met (George &Marllery, 2010).

The normality of the study is supplemented by the histogram above and the histogram of standardized residual shows a roughly normal curve when the assumption of regression and most technique met that error terms are normally distributed. The histogram showed that the assumption of normally distributed error is met.

Figure 2: Histogram



Source: SPSS Output, 2021

## **4.5 Analysis of Correlation**

A statistical method for determining the strength of a relationship between two quantitative variables is correlation analysis. A high correlation indicates a significant association between two or more variables, whereas a poor correlation indicates that the variables are barely related. To put it another way, it's the process of analyzing the strength of that link using statistical data.

This method is inextricably linked to linear regression analysis, which is a statistical method for modeling the relationship between a dependent variable, termed the response, and one or more explanatory or independent variables. The scale typed questionnaire, like the demographic factors, was imported into SPSS for correlation analysis.

The following correlation analysis was performed based on the completed questionnaire. The Pearson correlation test was used to determine the degree of correlation between the independent factors and the dependent variable, which was service provision. The correlations between these variables' results are shown in table 12.

Table 12: Correlation

		ER	EF	EP	EA	EC	SP
ER	Pearson Correlation	1.00	.240**	.290**	.244**	.362**	.238**
	Sig. (2-tailed)		0.00	0.00	0.00	0.00	0.00
	N	118.00	118.00	118.00	118.00	118.00	118.00
EF	Pearson Correlation	.240**	1.00	.493**	.522**	0.425**	.611**
	Sig. (2-tailed)	0.00		0.00	0.00	0.00	0.00
	N	118.00	118.00	118.00	118.00	118.00	118.00
EP	Pearson Correlation	.290**	.493**	1.00	.532**	.544**	.534**
	Sig. (2-tailed)	0.00	0.00		0.00	0.00	0.00
	N	118.00	118.00	118.00	118.00	118.00	118.00
EA	Pearson Correlation	.244**	.522**	.532**	1.00	.266*	.803**
	Sig. (2-tailed)	0.00	0.00	0.00		0.00	0.00
	N	118.00	118.00	118.00	118.00	118.00	118.00
EC	Pearson Correlation	.362**	0.425**	.544*	.266*	1.00	.728**
	Sig. (2-tailed)	0.00	0.00	0.00	0.00		0.00
	N	118.00	118.00	118.00	118.00	118.00	118.00
SP	Pearson Correlation	.238**	.611**	.534**	.803**	.728**	1.00
	Sig. (2-tailed)	0.00	0.00	0.00	0.00	0.00	
	N	118.00	118.00	118.00	118.00	118.00	118.00

Source: SPSS Output, 2021

A correlation coefficient is a numerical measure of a statistical relationship between two variables. There is a positive relationship between independent factors and service provision, as shown in the table, with a p value of less than 0.01 (P<0.01).

We can also see that all the correlations are positive (>0). In other words: E-registration has a very low relationship with service provision in case of ERA (r=0.238), E-filing has a moderate

positive relationship with service provision in case of ERA ( $r=0.611$ ), Again, E-payment has a moderate positive relationship with service provision in case of ERA ( $r=0.534$ ) Above all the independent variables, E-assessment has a strong positive relationship with service provision in case of ERA ( $r=0.803$ ), and It is also observed that E-checking has a very strong positive relationship with service provision in case of ERA ( $r=0.728$ ).

#### 4.6 Analysis of Regression

A regression model is a mathematical representation of the connection between a dependent variable and a set of independent variables. It can also be used to forecast the value of a dependent scale variable using a linear or "straight line" connection with one or more predictors. Using multiple regression analysis, the researcher examines the relationship between a dependent variable and many independent factors.

Table 13: Model Summary

Model	R	R square	Adjusted Square	R	Std Error
1	.822a	0.676	0.67		0.49857

Source: SPSS Output, 2021

In the table above, the model summary shows the strength of the association between the independent and dependent variables. The R in the following table is a Pearson correlation between anticipated and actual dependent variable values, with a value of 0.822, which is quite high.

$R^2$  is multiple correlation coefficients that represent the amount of variance of dependent variable explained by the combination of four independent variables. According to different scholars, the R square above 0.6 is accepted, conventionally. In this study, the R square resulted is 0.676, which implies it is accepted.

Table 14: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	164.592	4	32.918	132.431	.000b
	Residual	79.045	92	.249		
	Total	243.636	96			

Source: SPSS Output, 2021

The ANOVA tells us whether the model, overall, results in a significantly good degree of prediction of the outcome variable (Field, 2005). The F-ratio is a test statistic that is used to determine whether the model as a whole has statistically significant predictive potential, taking into account the number of variables required. The regression model fits to a very good degree of prediction because the significance result on the ANOVA table is 0.000, which is  $p < 0.05$ , and the regression mean square is greater than the residual mean square with F value 132.43.

Table 15: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.229	.143		1.598	.111
	E-registration	.006	.039	.005	.150	.881
	E-filing	.224	.047	.048	1.154	.029
	E-payment	.008	.048	.101	2.484	.213
	E-assessment	.454	.042	.436	1.656	.004
	E-checking	.633	.040	.660	15.907	.000

a. Dependent Variable: Service Provision

Source: SPSS Output, 2021

From the table we can say that  $\alpha$  is 0.229, and this can be interpreted as meaning that if all the independent variables were to be zero, the model predicts that there can only be 22.9% of Service provision. We can also read off the value of  $\beta$  from the table and this value represents the slope of the regression line. It is 0.006 for e-registration and although this value is slope of the regression associated with a unit change in the outcome associated with a unit change in

the predictor. Therefore, if e-registration variable is increased by one unit, then the model predicts that 0.6% extra service provision was experienced. The same are true for e-filing (22.4%), e-payment (0.8%), e-assessment (0.454%) and e-checking (63.3%) for which an increase in one unit of these respective variables can result in an increase in service provision by the percentage shown.

This impels that the effect of the variables differs as their percentage of influence.

#### **4.7 Significance Test**

On the other hand, the significant test in the table shows the significance level of the independent variable. Where ever the p value is above 0.05, the variable is considered to have insignificant effect on the dependent variable.

The following can be seen in the study's regression analysis table:

- E-registration: has a p value of 0.88, which is greater than 0.05, indicating that it has no significant impact on service delivery.
- E-filing: the p value of 0.029 clearly indicates that it is less than 0.05. This suggests that electronic filing has a substantial impact on service delivery.
- E-payment has a p value of 0.0213, which is less than 0.05, indicating that it has a substantial impact on service delivery.
- E-assessment: With a p value of 0.004, it is clear that the sample size is smaller than 0.05. As a result, E-assessment has a substantial impact on service delivery.
- E-checking: With a p value of 0.00, it is significant, and it is clear that it is less than 0.05. This means that it has a considerable impact on service delivery once again.

E-registration has no discernible impact on service delivery. E-registration shows a favorable link with service provision, according to the overall correlation and regression study. The significance test, on the other hand, shows that E-registration has no influence on service provision.

E-filing has a big impact on how services are delivered. E-filing has a favorable link with service provision; according to the overall correlation and regression study. It can also be demonstrated through the significance test that E-filing has a major impact on service provision.

E-payment has no discernible impact on service delivery. E-payment has a favorable link with service provision, according to the overall correlation and regression study. The significance test, on the other hand, shows that E-payment has no influence on service provision.

E-assessment has a big impact on how services are delivered. E-assessment shows a good link with service supply, according to the overall correlation and regression study. It can also be demonstrated through the significance test that E-assessment has a considerable impact on service delivery.

E-checking has a big impact on how services are delivered. E-checking has a favorable link with service provision, according to the overall correlation and regression study. It can also be demonstrated through the significance test that E-checking has a considerable impact on service delivery. E-governance has a substantial impact on service delivery in general. The aggregate analysis of the thesis shows that E-governance has a positive significant effect on service provision.

The analysis conducted in this chapter were statistical analysis, which is the demographic distribution of respondents by age, gender and educational background. The descriptive analysis part analyzed respondents' inclination towards E-registration, E-filing, e-payment, E-assessment and E-checking. Scale reliability analysis and linear regression model assumption were discussed which includes Multi-Collinearity, Linearity, Homoscedasticity and Normality. Correlation and regression analysis methods are used to test the significance of the variables in the study. The next chapter will cover summary conclusion and recommendations of the above analysis.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATION**

#### **5.1 INTRODUCTION**

This chapter briefly presents summary of the objectives, research methodology, key findings of the model, conclusion and suggests useful recommendations.

#### **5.2 Summary of Major Findings**

The research was undertaken generally to investigate the impact of e-governance on service provision in ERA. The study is designed to conclude the general objective by coming to a conclusion by examining the cause of E-governance in the organization, identifying the consequences of E-governance on service provision, and determining the extent of E-governance effect on service provision.

It is the portion of the study population by using Convenience sampling method was used with a sample size of 97 respondents. In view of the nature of the target population where the sample size was 9, the targeted respondents are declared their tax in large taxpayer office because large taxpayers are obligated to declare their tax.

Out of the population 97 samples were taken with reasonable format indicated and numbers of respondents were 96. The paper adopted quantitative research strategy and used self-administered questionnaire to collect data from the customers. Regarding age distributions, respondents in the age range between 30 and 39 amounted to 23% of the total respondents, while 68% were in the age group of 20 - 29 years of Age.

The other 8% is held by those between 40-49 years of age while the respondent's above 50 years of age were the least respondent's percentage of the total sample with 1% of contribution. The female respondents constituted the largest share of the gender composition representing 59.80% while 40.70% were male. Regarding educational level distributions, respondents in the Diploma and BA degree level got share of 8% and 31.4% respectively.

While, the highest frequency is seen on below diploma which constitutes about 56.8%. Above degree level respondents were 4 with 3%. Regarding the year of experience in the company, 62% of the total respondents have less than 3 years' experience. Respondents having 3 - 5 years were 29%. 6 - 10 years' experience constitutes 8.5%, while there was 1 respondent having above 10 years of experience.

After dealing with descriptive statistics of the data collected to measure the independent variables, The Pearson correlation test was used to determine the strength of the association between the independent and dependent variables. In the instance of ERA, the correlation data revealed that E-registration has a very low link with service supply.

E-filing, unlike E-registration, has a moderate positive relationship with service provision in case of ERA. Again, E-payment has a moderate relationship with service provision in case of ERA. Above all the independent variables, it is observed that the E-checking has a very strong positive relationship with service provision in case of ERA.

### **5.3 Conclusion**

**Five research questions were addressed in the study. These were the research questions:**

1. How does electronic registration (e-registration) affect ERA service provision?
2. In the instance of ERA, how does electronic filing (e-filing) affect service provision?
3. In the case of ERA, how do electronic payments (e-payments) effect service provision?
4. In the case of ERA, how does electronic assessment (e-assessment) affect service provision?
5. In the instance of ERA, how does electronic issuing checking (e-checking) affect service provision?

Investigations were conducted in response to those research topics, and the conclusions reached are provided in this section, along with the implications.

In terms of E-registration-related deals, respondents indicated that the company in ERA had an excellent e-registration. Another situation that was brought up was that the e-registration service provided is secure. The offered e-registration service is dependable, and the majority of respondents did not agree or disagree that the provided e-registration service has empathy.

On E-filing related deals respondents reflected most of the respondents, agreed that the e-filing service provided is responsive. Another scenario raised was the case that the e- filing service provided has assurance. The e-filing service provided is reliable, and most respondents disagreed for "the e- filing service provided has empathy".

Considering e-payment, the ambiguity between agreement and neutrality to the statements, the e-payment service provided is reliable, and the e- payment service provided has empathy. Most of the respondents, disagree that the overall the e-payment service provided is responsive, and Neutrality is observed for the statement "The e- payment service provided has empathy".

Regarding e-assessment, most of the respondents distressed that the e-assessment service

provided has empathy, and the e-assessment service provided has assurance, and the respondents were neutral that the e- assessment service provided is reliable and the e-assessment service provided is responsive. Considering E-checking ambiguity between agreement and neutrality to the statements, “The e-checking service provided is reliable”, and “The e-checking service provided has empathy”.

Most of the respondents, disagree that the overall the e-checking service provided is responsive, and Neutrality is observed for the statement “The e-checking service provided has empathy”.

## **5.4 Recommendations**

As the age of technology culminates with the development of technological products, the service providing organizations should keep up the contemporary advancement, in order to provide satisfactory services to the general public.

The organizations which provide different kinds of services should adopt the available technological products to meet the expectations of their clients, to whom the services intend to be provided. These technological products further facilitate the service provision system, by reducing the physical involvement of the clients and provide the services door to door. This in turn is done by computerizing the services and putting the services in one central system.

This study highly recommends the adoption of electronic service facilitating technologies. Based on the above findings and conclusions, the following recommendations are forwarded: As the study had indicated, E-checking has a strong significant effect on service provision in case of ERA.

The top management of ERA should be focusing on further improving the E-checking of employees to have more service provision, also e-assessment and e-filing has moderate and significant effect on service provision. This recommends firms should really consider to e-assessment and e-filing,

This chapter covered the study with three major parts. The first part discussed the summary of major findings which summarizes the above chapter. The second part discussed conclusions, the decision-making part based on the results from the data gathered and analyzed in the previous chapters. Part three is the recommendation part. It recommended the implementations of e-governance on other organizations other than ERA. It also recommended to ERA that the organization to carefully look into the e-checking aspect in order to give better service provision.

## REFERENCES

Act, 2012. Understanding Phases of E-government Project. 152-157.

Adeyemo (2011) Journal of internet and information systems, Vol. 2(1), pp. 11- 19, January 2011; E-government implementation in Nigeria: An assessment of Nigeria's global E-government ranking

Al-Mushayt and colleagues, 2009. Jordan's Computerization and E-Government Implementation: Obstacles, Challenges, and Successes 577-583 in Government Information Quarterly.

Aminuzzaman, E-Government (Electronic Government) and Development Is the Digital Divide a Factor in the Governance Gap? Institute for German Development

Yusniza and Anna, 2009. Faculty of Business and Accountancy, University of Malaya, 50603, Kuala Lumpur, Malaysia, Adoption of tax e-tax filing; A conceptual paper

Asserfaalemayehu, 2013. Indira Gandhi National Open University,

Belanger, 2006, an overview of some recent IRS study on the behavior of taxpayers in terms of compliance.

M. McKerchar and M. Walpole (Eds.), Further Global Challenges in Tax Administration, Birmingham, UK: Fiscal Publications.

B. A. Berhan and G. P. Jenkins (2005), "The High Costs of Controlling GST and VAT Evasion," Vol. 53, no. 3

Bhatnagar (2003). Tax evasion, tax avoidance, and development finance are all issues that need to be addressed. Oxford University,

Cambridge University Press, Cambridge, 2003, Cambridge Advanced Learner's Dictionary Chanchal and colleagues, 2013.

A study of tax payer satisfaction and awareness regarding e-filing of income tax returns with a focus on Moradabad. (Clarke (2001)). Ghana's National Information Clearing House promotes e-governance. International Institute for Communication and Development, Montego Bay, Jamaica

Creswell( 2003) 2nd edition of 'Research Design: Qualitative, Quantitative, and Mixed Approaches.' New Delhi's Sage.

Negarit Magazine is a publication published by the FDRE. FDRE, House of People Representative of Ethiopia: <https://www.hopr.gov.et/>

Fortune, 2013. Ethiopia develops an e-tax filing system, pp 2-5

Fortune, 2015. Electronic payment system to move forward in Tax Authority, pp 3-6  
Fowler, 2020. Electronic services to move forward in Tax Authority in ERA, pp 3-6

Fu, et al, 2004. E-government in International journal of the Concept, practice, and development; internet and management 10, no. 2

G Hanumanthappa, 2015. International Journal of Humanities & Social Science Studies. A Peer-Reviewed Bi-monthly Bi-lingual Research Journal. Volume-II, Issue-II, September 2015, Pg 401-405

Gathungu and Mugnai, 2012. Taxation: policy and Practice .Chapman and Hall, 3rd Ed.

Gayathri P et al., 2013. A Study on Tax Payer's Perception Towards E-Filing of Income Tax Returns with Reference to Teachers in Bengaluru East, Karnataka

GebiLelemat, 2015. Ethiopian Revenues and Customs Authority Magazine

Gebre, 2006. Tax Accounting System of Ethiopia, 2nd edition.

Gekonge J et al., 2016; E-Filing of Income Tax: Awareness and Satisfaction level of individual Tax payers in Coimbatore city, India

George et al, 2011. Information Security: Design, Implementation, Measurement, and Compliance. Boca Raton, FL: Auerbach publications

Gil Garcia, 2012. Taxation: Policy and Practice. 16th ed. Birmin Fiscal Publications.

Goolsbee, 2002. The Turbo Tax Revolution Evaluating the Ability of Technology to Solve the Tax Complexity Dilemma, University of Chicago

Harold, 2011. Implementing electronic tax filing and imbursement in Malaysia

Harrison et al., 2015. Effects of Virtual tax system on tax compliance among small taxpayers in meru.

Iles, 2005. Public Private Partnership as Mechanism for the E-governance Implementation; National academy of Public Administration under the president of Ukraine, Kyiv; European Political and law discourse, volume 2, issue 3

Internet Usage Statistics, 2018. U Telecommunication Development Sector

Electronic Government for Developing Countries; ICT Applications and Cyber Security

Division Policies and Strategies Department: ITU Telecommunication Development Sector  
Kun.

Kun,2008. Electronic Journal of e-Government Volume 8 Issue 1 2010, harnessing e-  
Government Adoption in the SADC Region: a Conceptual Underpinning (pp23 - 32)

Lymer et al, 2009. In Kenya, technology is being used as a strategic tool to improve tax  
compliance.

Maede, Focusing on the Few: The Role of Large Taxpayer Units in Developing Country  
Revenue Strategies 10 November 2014,

Retrieved "Defining and Measuring Success in Canadian Public Sector Electronic Service  
Delivery," Issue Paper Prepared for Discussion and Debate at Lac Carling V., Mechling J.,  
Vincent C, Ontario, Canada <http://www.nga.org/cda/files/MeasuringProgress.pdf>..

Ministry of Finance and Economic Development (MoFED, 2010), Growth and  
Transformation Plan (GTP) 2010/11-2014/15; Addis Ababa September, 2010

Makanga, 2010. Factors affecting tax compliant attitude in Africa: Evidence from Kenya,  
Tanzania, Uganda and South Africa

McCarten, 2014. Information technology and fiscal capacity in a developing country: evidence  
from Ethiopia. Journal Economic Literature

Misrak, 2008. "Impact of Electronic Tax Registers on VAT Compliance: A Study of Private  
Business Firms"

MitjaDecman, : 5th European Conference on e-Government University of Antwerp, Belgium,  
16 17 June 2005

Moyi&Ronge , 2006. Taxation and Tax Modernization in Kenya: A Diagnosis of Performance  
and Options for Further Reform, Institute of Economic Affairs, Kenya

Naibei et al., 2011; Impact of Electronic Tax Registers on VAT Compliance: A Study of Private  
Business Firms

Nkwe, 2012. E-Government Challenges and Opportunities in Botswan; International Journal  
of Humanities and Social Science: Vol. 2 No. 17

Otike and Ntulo, 2013. E-government Initiatives and Key Factors Causing the Delay of their  
Implementation in Saudi Arabia; 5th Conference on Qualitative Research in IT 29-30  
Nov 2010, Brisbane

Perucca and Sonntagbauer, 2014. Public-Sector Reform, E-government and the Search for  
Excellence in Africa; Experiences from Uganda: Electronic Journal of e-Government  
Volume 1, Issue 2

- Samrawit Yemane, 2021, Digitalising the tax payment system, Corporate tax news. issue 57
- Samuel E. (2015). The Practice, Challenges, and Prospects of e-Government: The case of Ethiopian Revenue Authority (ERA) Large Taxpayers Office (LTO)
- Samson, 2016. The Practice, Challenges, and Prospects of e-Government in Ethiopia
- Sims, H. (2001) "Public Confidence in Government and Government Service Delivery", Canadian centre for management development, [online], [http://www.ccmdccg.gc.ca/Research/publications/pdfs/HarveySimms\\_e.pdf](http://www.ccmdccg.gc.ca/Research/publications/pdfs/HarveySimms_e.pdf)
- Thomson, 2008. Strengthening Risk Management and Audit Strategies to Improve Compliance", Paper presented at Caribbean Organization of Tax Administration (COTA) General Assembly, July 2008, CARTAC, Belize
- Turner and Apelt, 2004. An Analysis of the Effect of Electronic Filing on Individual Income Tax Compliance, A Thesis submitted to the Graduate School of Arts and Sciences at Georgetown University
- UN, 2004. Global E-government Readiness Report 2004 Towards Access for Opportunity; Department of Economic and Social Affairs Division for Public Administration and Development Management: United Nations, New York, 2004
- UNDESA, 2018. E-government Toolkit for Developing Countries; National Informatics Centre Dept. of Information Technology Ministry of C&I
- UNESCO, 2005. E-government toolkit for developing countries. 8.
- UNPAN, 2012. Electronic Government Services for the 21st Century; a Performance and Innovation Unit Report: September, 2012
- World Company, 2001. E-governments\ Retrieved From, <http://web.worldcompany.org/>
- World Company, 2015. E-governance\ Retrieved From, <http://web.worldcompany.org/>

## **APPENDIX II: QUESTIONNAIRE**

### **QUESTIONNAIRE FOR THE THESIS "TO EVALUATE THE EFFECT OF E-GOVERNANCE ON SERVICE PROVISION IN PUBLIC ORGANIZATIONS IN THE CASE OF ERA**

Dear Respondents, the main goal of the study is to evaluate the effect of e-governance on service provision in public organizations in the case of ERA.

The study will be based on your responses as well as any other relevant data that may be available. It is an important aspect of the study, and the information you provide helps us discover the true determinants and then to gather appropriate data for public use. Your willingness to answer intentionally is critical to our study because it reflects thousands of people who aren't in the sample.

**NB:** The information gathered is solely for academic purposes, and you can be assured that any information you supply will be kept totally private.

#### **PART I. PERSONAL INFORMATION**

**For the following questions, choose the letter that best reflects your accurate personal information.**

1. What gender are you?

B. Female      A. Male

2. What age group do you belong to?

A. 20-29      B. 30-39

C. 40-49      D. 50 Above

3. What is your education level?

A. Below Diploma      B. Diploma

C. Degree      D. Above degree

**PART II.CLOSE-ENDED QUESTIONNAIRE**

**1. E-governance**

<b>NO</b>	<b>DESCRIPTION</b>	<b>Strongly Disagreed</b>	<b>Disagreed</b>	<b>Neutral</b>	<b>Agreed</b>	<b>Strongly Agreed</b>
<b>E-Registration</b>						
1	The e-registration service provided is responsive					
2	The e-registration service provided has assurance					
3	The e-registration service provided is reliable					
4	The e-registration service provided has empathy					
<b>E-Filing</b>						
5	The e-filing service provided is responsive					
6	The e- filing service provided has assurance					
7	The e- filing service provided is reliable					
8	The e- filing service provided has empathy					
<b>E-Payment</b>						
9	The e-payment service provided is responsive					
10	The e- payment service provided has assurance					
11	The e- payment service provided is reliable					
12	The e- payment service provided has empathy					
<b>E-Assessment</b>						

13	The e-assessment service provided is responsive					
14	The e- assessment service provided has assurance					
15	The e- assessment service provided is reliable					
16	The e- assessment service provided has empathy					
<b>E – Checking</b>						
17	The e-checking service provided is responsive					
18	The e-checking service provided has assurance					
19	The e-checking service provided is reliable					
20	The e-checking service provided has empathy					

## 2. SERVICE PROVISION

NO	DESCRIPTION	Strongly Disagreed	Disagreed	Neutral	Agreed	Strongly Agreed
1	The empathy of service provision of ERA is affected by the e-governance					
2	The service provision reliability of ERA is affected by the e-governance					
3	The responsiveness of service provision of ERA is affected by the e-governance					
4	The service provision assurance of ERA is affected by the e-governance					
5	E-governance has a significance effect on service provision of ERA					