



**THE EFFECT OF E-TAX SYSTEM ON TAX REVENUE COLLECTION:  
THE CASE OF ETHIOPIAN MINISTRY OF REVENUE LARGE  
TAXPAYERS OFFICE [LTO]**

**BY**

**NAZRAWIT TESFAYE MULISSA**

**ADDIS ABABA UNIVERSITY**

**COLLEGE OF BUSINESS AND ECONOMICS**

**DEPARTMENT OF ACCOUNTING AND FINANCE**

**FEBRUARY 2022**

**ADDIS ABABA, ETHIOPIA**

**ADDIS ABABA UNIVERSITY**  
**COLLEGE OF BUSINESS AND ECONOMICS**  
**DEPARTMENT OF ACCOUNTING AND FINANCE**

**THE EFFECT OF E-TAX SYSTEM ON TAX REVENUE COLLECTION:  
THE CASE OF ETHIOPIAN MINISTRY OF REVENUE LARGE  
TAXPAYERS OFFICE [LTO]**

A thesis submitted to Addis Ababa University, College of Business and Economics, Department of Accounting and Finance in partial fulfillment of the requirements for the award of degree of Master of Science in Accounting and Finance

By: Nazrawit Tesfaye Mulissa

ID: GSR/9875/12

Advisor: TekalignNega (PhD)

February 2022

Addis Ababa, Ethiopia

## **DECLARATION**

I, Nazrawit Tesfaye, hereby declare that the research work titled "The Effect of E-Tax System on Tax Revenue Collection: The Case of The Ethiopian Ministry of Revenue Large Taxpayers - Office [LTO]" submitted for the award of the Master of Science in Accounting and Finance is my own original work and that all sources of materials used for the study have been duly acknowledged.

---

Candidate's Name

---

Signature

---

Date

### **ADVISOR'S APPROVAL**

This is to certify that the work contained in Nazrawit Tesfaye's (GSR/9875/12) thesis, "The Effect of E-Tax System on Tax Revenue Collection: The Case of Ethiopian Ministry of Revenue Large Taxpayers - Office [LTO]," submitted for the award of a Master's of Science in Accounting and Finance to the College of Business and Economics at Addis Ababa University. Her study was conducted under my direct supervision and guidance, and her thesis was submitted for examination to Addis Ababa University's College of Business and Economics' School of Graduate Studies with my consent as a university advisor.

---

Advisor's Name

---

Signature

---

Date

**ADDIS ABABA UNIVERSITY**  
**COLLEGE OF BUSINESS AND ECONOMICS**  
**DEPARTMENT OF ACCOUNTING AND FINANCE**

**APPROVAL SHEET**

This is to certify that Nazrawit Tesfaye's thesis, The Effect of E-Tax System on Tax Revenue Collection: The Case of Ethiopian Ministry of Revenue Large Taxpayers - Office [LTO], has been completed. It is submitted in partial fulfillment of the requirements for the Master of Science in Accounting and Finance degree, and it complies with university regulations and meets accepted quality and originality standards.

**Approval by the Board of Examiners**

Internal Examiner

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

External Examiner

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

TekalignNega (PhD)

Advisor's Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## **ACKNOWLEDGMENT**

This paper is the result of the contributions of different people in various ways. These people deserve appreciation for everything that they kindly did to me so that I could complete my studies successfully. It is my pleasure to express my gratitude to these people for their kindness. First of all, my acknowledgement goes to the Almighty God, who has helped me throughout from the beginning to the completion of my studies in every circumstance. Second, I would like to thank my advisor, Dr TekalignNega who was kindly understanding my situation and encouraging me to keep on with my work. His constructive comments helped me a lot to reshuffle my paper and complete it successfully. I am so grateful for his gracious contribution to the work. Third, my heart full appreciation goes to the MekaneYesus Management and Leadership College(MY-MLC), that offered my scholarship to pursue my studies. I would like to express my gratitude to the Seminary's leadership. I was picked for the scholarship, which was offered by the Ministry ofEducation (MoE). Besides, I was given less work load because the leadership considered my studies.Indeed, I cannot take it for granted because if it was no because of this provision, I could not have pursued my studies. Fourth, my appreciation goes to all who contributed to this work, especially, those who supported me in providing necessary resources to this work. I also want to kindly appreciate my colleagues at the work place, who were there for me when I needed their help and encouragement to me. Finally, I cannot thank my family enough for their support and encouragement throughout my studies. If it was not because of their help, my studies would not have come to its successful completion. Thank you all!

## Table of Contents

CHAPTER ONE .....	1
INTRODUCTION.....	1
1.1. Background of the Study.....	1
1.2. Statement of the problem .....	2
1.3. Research Questions .....	4
1.4. Objectives of the study.....	5
1.4.1. General Objective .....	5
1.4.2. Specific Objectives .....	5
1.5. Hypothesis of the study .....	5
1.6. Significance of the Study .....	5
1.7. Scope of the study .....	5
1.8. Limitation of the study .....	6
1.9. Organization of the Paper.....	6
CHAPTER TWO.....	7
LITERATURE REVIEW .....	7
2.1. Introduction .....	7
2.2. Theoretical and Conceptual literature .....	7
2.2.1. Conceptual literature.....	7
2.2.1.1. Meaning and concept of Tax.....	7
2.2.1.2. The concept of E-Taxation System.....	8
2.2.1.3. Large taxpayers .....	9
2.2.1.4. The Essence of Taxation.....	10
2.2.1.5. Tax revenue in Ethiopia.....	10
2.2.2. Theoretical literature.....	11

2.2.2.1. Diffusion of Innovation Theory .....	11
2.2.2.2. The Expediency Theory of Taxation .....	12
2.2.2.3. Resource Based View Theory (RBV).....	12
2.3. Empirical literature Review .....	13
2.3.1. Global Studies related to the influence of E-tax system on tax revenue collection.....	13
2.3.3. Empirical Studies in Ethiopia .....	15
2.4. Research Gap.....	16
2.5 Conceptual Framework of the Study.....	16
CHAPTER THREE.....	18
RESEARCH DESIGN AND METHODOLOGY.....	18
3.1. Introduction .....	18
3.2. Research Design and approach .....	18
3.2.1. Research Design.....	18
3.2.2. Research Approach Adopted .....	19
3.3. Source of Data.....	19
3.4. Method of Data Analysis.....	20
3.4.1. Descriptive analysis .....	20
3.5. Operational Definition and Measurement of Variables of the Model.....	21
3.5.1. The Dependent Variable .....	21
3.5.2. The Independent Variables .....	21
3.6. Ethical Considerations.....	22
CHAPTER FOUR.....	23
4. DATA PRESENTATION, ANALYSIS AND DISCUSSION.....	23
4.1. Introduction .....	23
4.2. Descriptive Statistics of the Data .....	23

4.2.1. Descriptive Statistics of the dependent variable .....	23
4.2.2. Descriptive Statistics of the independent variables .....	24
4.2.3. Paired Sample T-Test.....	24
Table 4: Paired Samples Statistics .....	25
Table 5: Paired Samples t-test.....	25
4.4.2. Discussion of Results .....	26
CHAPTER FIVE.....	26
5. CONCLUSION AND RECOMMENDATION .....	26
5.1. Conclusion.....	27
5.2. Recommendation.....	28
5.3. Recommendations for future Researches.....	28
Reference.....	29
Appendixes.....	35
Appendix 1 .....	35
Appendix 2.....	36

**List of tables**

Table1: Variables and expected sign ..... 23

Table2: Descriptive Statistics of the dependent variable .....24

Table 3: Descriptive Statistics of the independent variables ..... 25

Table 4: Paired Samples Statistics ..... 26

Table 5: Paired Samples t-test ..... 26

**List of Figures**

Figure 1: Conceptual framework of the study ..... 19

## **List of Abbreviations**

APA	American Psychological Association
ERCA	Ethiopian Revenue and Customs Authority
E-taxation	Electronic Taxation
OECD	Organization for Economic Co-operation and Development

## ABSTRACT

*The main objective of this study was to examine the effects of electronic- tax system on the revenue collection of Ethiopian Ministry of Revenue in case of Large Taxpayers Office. To this end, the study employed explanatory design and quantitative research approach secondary data, which covers 16 years from 2005-2012 before e-tax system and from 2013-2020 after e-tax system, collected from ministry of revenue of Ethiopia was utilized. The descriptive statistics was employed to the total of two explanatory variables. Namely number of tax payers and e-taxation were included in the econometric model. The result of the paired samples t-test shows that number of tax payers and e-taxation have significant effect on tax revenue collection from large tax payers in Ethiopia. Finally, the study recommends that ministry of revenue and policy makers need to work hard towards improving the tax revenue collection from large tax payers by considering aforementioned significant e-taxation and number of tax payer firms.*

***Key Words: large tax payers, electronic- tax system, tax revenue***

# CHAPTER ONE

## INTRODUCTION

### 1.1. Background of the Study

Revenue generation is a major source of survival and challenge for both advanced and developing economies. Every country in the world is interested in the amount of revenue to be generated now and in the future because it is a determinant of economic development. In the course of trying to solve the challenge of revenue generation, taxation which includes personal income tax, value added tax, company income tax, have been the major sources of government revenue in the economies of the world. It has been to a large extent the source of revenue to the developed countries but there are still some grey areas to be touched due to various levels of evasions which have reduced the volume of revenue generated (OECD, 2017). Revenue from taxes has considerably contributed towards the growth and prosperity of different countries across the world (Coccia, 2018).

Most of African countries including Ethiopia have undergone reforms and transformations for the purpose of expanding their tax bases so as to increase tax revenue to finance public expenditures (Guliya et al., 2018). Tax to GDP ratios of some countries in African has been growing reaching to the benchmark set by OECD of 24% (Kirti & Agrawal, 2014). Average tax revenue to Gross Domestic Product ratios for African countries was 16.6% in the year 2019 (OECD, 2021). The Ethiopian government has been implementing tax reforms to increase tax revenue which is crucial to meet the growing demand of public service from its citizens. One of the recent modernization/transformations steps taken to increase tax revenue by the government was the introduction of the e-taxing systems for the large taxpayers, a project financed by the Investment Climate Facilitations for Africa. Wasao (2014) defines electronic tax system as an online system or channel where taxpayers have access or permit to the platform through the use of internet. In otherward, taxpayers have access to all the services provided by the tax authority such as the registration for a tax identification number, electronic tax filing of tax returns and application for compliance certificate. The e-tax system comprises modern technology that use computers, internet and software applications. These technologies are considered to be efficient when handled by well-trained personnel and entrenched in the workflow of the organization. The electronic tax system has been around globally since 1986. It

was started as a small test program in which only five tax payers were participated from Cincinnati, Raleigh Durham, and Phoenix. After that, electronic tax system has grown to become common place, serving millions of taxpayers every year all over the world (Cobham, 2010).

In Ethiopia, the Ministry of Revenue of Ethiopia has introduced tax administration from large tax payers, using electronic payment system with the intent of enhancing tax collections and tax efficiency as part of transforming and modernizing its services (ERCA, 2020). Ofurumet et al. (2018) asserts that implementing application of e-tax system on tax administration is expected to bring substantial expansion of tax revenue with a visible increase in tax income as the proportion to GDP.

## **1.2. Statement of the problem**

The government of Ethiopia has been taking different initiatives to improve its domestic resource mobilization capacity including strengthening and fully implementing the tax administration information systems and enhancing the institutional capacity of Ethiopian Ministry of Revenues by equipping it with modern technologies (NPC, 2016). These initiatives include the introduction of value-added tax, programs to improve taxpayer services and the roll-out of e-tax system. Electronic tax system was, especially, introduced by Ethiopian Revenue Authority to increase financial collection, administration, avail services to the tax payers all the time from anywhere, reduce costs of compliance and improve tax compliance. However, tax compliance levels remain low and tax collections are below the targets set by Ethiopian Revenue Authority. Despite the increasing need to increase revenue collection and enforcement so as to provide public services, and the introduction of electronic tax systems in most countries across the global divide, developing countries like Ethiopia, still face the challenges of low tax compliance and tax administration (Guliy et al., 2018). The low tax ratio is explained by widespread tax evasion, tax incentives for investors and severe constraints in administrative capacity, amongst others.

Muita (2011) argued that online tax systems are rapidly replacing paper-based tax reporting systems, promising many advantages over the traditional method of hard copy tax filing; these systems promise faster process, lower costs and increased efficiency in revenue collection. An electronic system for filing and paying taxes, like the one introduced by ERCA, if implemented

well and used by most taxpayers, benefits both tax authorities and taxpayers. Hence, it is necessary to look into this issue in a scientific method.

Though the e-tax system has been introduced and implemented in Ethiopia since 2013, the tax revenue to GDP ratio has been remained below 13 percent which lies expressively below the average of OECD standard for African countries, which is 24%. Hence, the country is facing a large gap in its capacity to finance development efforts which is partly filled by foreign aid and borrowing. The low tax ratio is explained by widespread tax evasion, tax incentives for investors and severe constraints in administrative capacity, amongst others (Guliya et.al, 2018). Besides, the rate of acceptance of e-tax payment is not up to the expectation of the government. According to ERCA's report (2017), during the fiscal year 2016/17, only 5.1% of the taxpayers filed their taxes using the new business model. This indicates a poor acceptance rate of e-taxing given the government's effort in promoting the usage of the new platform and investment in the infrastructure.

There has been limited research done to evaluate the effects of electronic tax system on the efficiency of revenue collection. Masunga et al. (2020) examined the influence of the e-tax system on tax revenue collection in Tanzania's large tax payers by collecting secondary data and by employing ex-post-facto research design. The result of the study depicts that the use of the e-tax system has positive significant impact on tax revenue generation and increase in number of registered large taxpayers. It has also a positive effect on tax revenue. Generally, there are few researches on the challenges and opportunities of adopting E-Tax system in case of ERCA Large Tax Payers Office in Ethiopia.

Dagnachew(2018) conducted a study on the challenges and opportunities of adopting E-Tax system in case of ERCA Large Tax Payers Office by collecting primary data from Large Tax Payers Office staffs. The result of the study shows that the major challenges of the adoption and development of e-tax system were lack of customer awareness, limitation in network infrastructure and internet related support services in Ethiopia. Besides, increase productivity, reduces paper work, reduce transaction cost, increase reliability and reducing errors are also identified as operational and services benefits from adopting and developing of E-Tax system in the study.

In similar vein, Haymanot (2020) conducted a research to investigate the benefits and practical challenges of e-filing large tax payers in Ethiopia by employing exploratory study and collecting primary data from 138 respondents. The study employed convenience sampling technique to select the most relevant respondents from the target population and the collected primary data was analyzed using descriptive analysis. The finding of the study revealed that e-tax system increased the tax payers' satisfaction, minimized time and cost by avoiding emotional stress resulting from long queue and make them efficient and effective as they can administer their own taxes and created flexibility to timely recording tax credit and to refund tax any time. In addition, the study indicates that unreliable e-filing service and system inefficiency were found to be among the practical challenges faces while using e-filling. Ruta(2017) also conducted a study to assess electronic tax filing system by examining the challenges, benefits and its relation with tax compliance in Ethiopian Revenues and Customs Authority. The result of the study reveals that taxpayers' attitude, taxpayers' fault and governmental problems are the major challenges for e-tax system. On the other hand, data handling, accuracy, job performance and tax compliance are found as the benefit of e-tax system. In addition, the study found out that E-tax filing system and tax compliance has a positive relationship.

The aforementioned studies had not investigated the effect of e-tax system and registering new taxpayers on tax revenue collection of Ethiopia. As far as the knowledge of the researcher concerned, since its inception of e-tax system, whether the system has achieved its objectives of maximizing tax revenue and the link between e-tax system and tax revenue are not clearly substantiated in Ethiopia. It has also remained uncertain and imprecise whether the effort of number of large taxpayers in e-tax system each year has an association with tax revenue in Ethiopia. Therefore, the motive of this study is to assess the effects of e-tax system on tax revenue collection in Ethiopia's large taxpayers.

### **1.3. Research Questions**

To achieve the study's objective, the following key research questions are set:

1. What is the effect of e-tax system on tax revenue collection in Ethiopia?
2. What is the effect of number of large taxpayers in e-tax system on tax revenue collection in Ethiopia?

## **1.4. Objectives of the study**

### **1.4.1. General Objective**

The general objective of this study is to assess the effects of electronic-tax system on the revenue collection of Ethiopian Ministry of Revenue in case of Large Taxpayers Office.

### **1.4.2. Specific Objectives**

This paper aims at addressing the following specific objectives:

1. To examine the effects of e-tax system on tax revenue collection in Ethiopia's large taxpayers' office
2. To examine the effect of number of large taxpayers in e-tax system on tax revenue collection in Ethiopia's large taxpayers' office

## **1.5. Hypothesis of the study**

1. Ha: The use of e-tax system has improved tax revenue collection in Ethiopia's large taxpayers' office

## **1.6. Significance of the Study**

The study has great importance to various stakeholders. In addition to being an academic exercise to fulfill the requirement of the post-graduate study program in Accounting, the result of the study might benefit the government by providing information on the effect of e-taxation system on tax revenue collection. It would help to achieve the objectives of the country and propel socio-economic development through effective revenue collection performance. Studies like this can be significant because it can provide specific insights and allows policymakers, particularly the tax authorities, to gain a better understanding of the existing challenges and problems about e-taxing and forward the possible solution.

## **1.7. Scope of the study**

The study was limited to examine the effect of e-taxation on tax revenue in Ethiopia focusing on large tax payers' office. Large tax payers' office is selected because of its many years' experience in the e-tax service. It has provided various types of E-tax services to large taxpayers. This study does not address all the services provided by the Ethiopian Ministry of

Revenue to different taxpayers. It is assumed that the large taxpayers' office can represent other services provided by the Ethiopian Ministry of Revenue because of the similarities of different systems.

### **1.8. Limitation of the study**

Independent variables that have influenced tax revenue are not limited to the factors discussed and presented in this work. There are other areas that were not covered by this study due to financial and time limitations, and unavailability of data to a specific context. It was desirable if it would be possible to conduct a study that covers the influence of e-tax system on tax revenue of all different taxpayers in Ethiopia. However, due to unavailability of data, the study was delimited only to large tax payers. Besides, since the study is a specific case study, its findings are not the result of generalized conclusion. Admittedly, the study faced difficulty to get sufficient background information about the subject matter that could be so helpful for the work. There are very limited literatures on the area, especially, in the Ethiopian context.

### **1.9. Organization of the Paper**

The paper is organized into five chapters. Chapter 1 is the introductory part of the work that outlines a brief overview of the background of the study. It also includes the statement of the problem, the objectives of the study, the research questions, significance of the study, the scope of the study, and limitation of the study and organization of the paper. Chapter 2 presents a review of related literatures such as, conceptual literatures, theoretical foundations, and empirical review both globally and in the Ethiopia context. Research gap and conceptual framework were also discussed in this chapter. Chapter 3 outlines the research methodology. Chapter 4 is devoted to the data presentation, data analysis and discussion of the result of the study. The final chapter summarizes the findings, present the conclusion, and recommendations forwarded by the researcher that may help for further future studies in the area. References and appendices are attached at the end of the paper.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1. Introduction**

This chapter presents a review of literatures pertinent to the study as presented by various researchers, scholars', analysts and authors. It summarizes literatures that have been reviewed for the purpose of the study in relation to the effect of e-taxation system on tax revenue collection. In the first part of the chapter theoretical and conceptual literature that are pertinent to the research objectives are presented. Theoretical foundation of the study with issues pertaining to the influence of E-taxation system on tax revenue collection are discussed. Secondly an empirical review which is an overview of the literature of past studies, findings and recommendation were discussed. A critical review of the existing literatures concerning the influence of E-taxation system on tax revenue collection are thoroughly reviewed and presented in this part of the study. Lastly, the conceptual framework of the study and summary research gap is presented.

#### **2.2. Theoretical and Conceptual literature**

##### **2.2.1. Conceptual literature**

###### **2.2.1.1. Meaning and concept of Tax**

A number of authors have tried to define the term "tax". According to Lymer, et al. (2009). Tax can be defined as 'a compulsory levy, imposed by government or other tax raising body, on income, expenditure, or capital assets, for which the taxpayer receives expenditure, or capital assets, for which the taxpayer receives nothing specific in return' .it is a financial charge or other levy imposed on an individual or a legal entity by government". Similarly, Kagan (2021) defined taxation as a financial obligation on citizens or residents imposed by the government or a taxing authority. Paying taxes to governments/officials has been a mainstay of civilization since ancient times.

Taxation is defined as imposition of compulsory levies on individuals or entities by governments. Taxes are levied in almost every country of the world; primarily to raise revenue for government expenditures, although they serve other purposes as well (Brittanica, 2021).

All in all, from the point of view of the individuals, tax is considered as a contribution whereas from the point of view of the government tax is a collection. When taxes are levied; the citizens are liable for their payment at the time and in the manner required and provided by the law authorizing their assessment and collection. The primary purpose of taxation is to fund government expenditures. Varying justifications and explanations for taxes have been offered across utilitarian, economic, or moral considerations (Kagan, 2021).

### **2.1.1.2. The concept of E-Taxation System**

Electronic tax system is a system which has been developed to replace manual tax system. It is a web enabled and secure platform that provides a fully-integrated and automated solution for administration of domestic taxes. In this platform taxpayers can register tax, returns filing, payment registration to allow for tax payments and status inquiries with real-time monitoring of accounts (Waweru, 2013). Its emergence is related with the interaction between business, state, and citizens (Allahverdi & Kuzucu, 2017). Its history goes back 1986 when a small test program started with only 5 taxpayers from Cincinnati, Raleigh Durham, and Phoenix agreed to participate. Since then, the electronic tax systems have grown to become common across the world serving millions of taxpayers every year (Maisiba & Atambo, 2016).

Similarly, Electronic tax system can also be defined as “the system of collecting taxes by the relevant authorities electronically from the taxpayers with the aid of internet service. It is an online policy which avails taxpayers the opportunity to access the service portals through the internet and see all the services offered by the tax administration like the registration for generating personal identification number, filing of returns and application for a compliance certificate” (Akpabi and Igbekoyi, 2019).

Çetin (2010) defined E-taxation as an e-government application/platform that allows administration and collection of the taxes. The platform also allows taxpayers to submit their statements in an electronic form, computerized realizations of accruals and collections related to statements, collect information on income wealth and expenditures in the electronic environment, and computer audit of the tax audit is provided. It also provides education and information to taxpayers through electronic registration, filing, and payment.

In general, the e-tax system is a comprehensive internet portal that can be accessed 7 days a week and 24 hours a day that provides taxpayers with a safe self-service option package, a single point of information and action, and does not require intervention by tax administration personnel (Jimenez et al., 2013). According to Wasao (2014) E-taxation services is a digital method whereby a taxpayer is capable of accessing all the services related to taxes through internet offered by a financial and/or tax authority such as the registration for a personal identification number, filing of tax returns and other related documents. In this platform taxpayers can access all the services online without physical contact with the service providers. In taxation, the authorities responsible for collecting taxes on behalf of the government and the taxpayers or users of the digital tax services are linked E-taxation services (Ofurum et al., 2018).

### **2.2.1.3. Large taxpayers**

Large Taxpayers participate in regular, extensive and multifaceted international dealings as a result of being characterized by; manifold operating entities and diverse business interests; a substantial volume of business; a large number of employees (Chatama, 2013). It deals with complicated issues including complex tax laws and tax planning arrangements. Besides Large Taxpayers present major tax compliance risks, tactics of minimizing tax liabilities, a large portion of tax assessments and significant role in income generation (Coulibaly & Gandhi, 2018). They are fully-fledged on the utilization of e-tax system and their turnover per annum exceeds the threshold being the condition of using the e-tax system, and the law requires them to adopt and use the system.

According to International Tax Dialogue (2010), revenue trends of most countries show that a small number of large enterprises account for the majority of tax revenue collection (60-70% of total tax revenue) and these major contributors of tax revenue is classified under Large Taxpayers.

Large taxpayers are complexity and have critical role in revenue collection. Due to this, tax administration needs to be ahead of large tax payers in technology in order to curb cheating (Chatama, 2013). Guiterreze (2010) asserts that the adoption of an integrated management model for the adequate functioning of tax administration that targets enhanced compliance, evasion minimization, and increase in tax revenue.

The Ethiopian tax system classifies businesses into three categories – A, B and C according to whether the business is incorporated or not, and the size of the business as measured by its turnover. Incorporated taxpayers (corporations) are classified as Category A and face the same tax rate (30%) and administrative requirements regardless of their size. For unincorporated taxpayers, these categories determine the information that firms are required to submit when reporting to the revenue authority. Category “A” large taxpayers whose annual turnover more than 500,000 and category “B” taxpayers whose annual turnover is between 100,000 and 500,000 have obligation to prepare financial statements whereas Category “C” taxpayers are not required to prepare financial statements (Harries and Seid, 2020).

#### **2.2.1.4. The Essence of Taxation**

The primary purpose of taxation is to fund government expenditures. Varying justifications and explanations for taxes have been offered across utilitarian, economic, or moral considerations (Kagan, 2021). According to Nightingale(2002)the objective of taxation can to raise revenue to finance government expenditure, redistribution of wealth and income to promote the welfare and equality of the citizens, regulation of the economy thereby to create enabling environment for business to increase.

To foster economic growth and development governments need sustainable sources of funding for social programs and public investments. Programs providing health, education, infrastructure and other services are important to achieve the common goal of a prosperous, functional and orderly society. And they require that governments raise revenues. Taxation not only pays for public goods and services; it is also a key ingredient in the social contract between citizens and the economy. How taxes are raised and spent can determine a government’s very legitimacy. Holding governments accountable encourages the effective administration of tax revenues and, more widely, good public financial management (World Bank, 2009).

#### **2.2.1.5. Tax revenue in Ethiopia**

Ethiopia has a federal tax system, with tax powers and revenues divided between the federal government and the regional states. The power to levy and collect different taxes is allocated either ‘exclusively to the federal government; exclusively to the regional states; concurrent to

both the federal government and the regional states; [or is] undesignated' (FDRE Constitution, 1995 – Proclamation No. 1/1995). Concurrent powers are assigned to the federal administration, but the resulting revenue is subject to revenue sharing according to the rules set by the House of the Federation (the higher chamber of parliament). On the other hand, revenues assigned to only one level of government can be fully used at that level, without needing to be shared.

In 2018/19, tax revenue totaled ETB 268.5 billion, of which ETB 74.2 billion was collected by the regional states and the remaining ETB 194.3 billion was collected by the federal government. This equated to a tax-to-GDP ratio of approximately 10%, which is lower than 10 years prior, and it is also significantly below the 2019/20 target of 17.2% that was outlined in the government's Growth and Transformation Plan (GTP II) in 2015 (Federal Democratic Republic of Ethiopia, 2015). There is thus a renewed and strategic focus on improving domestic revenue mobilization under Ethiopia's new 10-year economic reform agenda, with a revised target of achieving a tax-to-GDP ratio of 18.2% by the end of the Perspective Plan in 2019/30 (FDRE Planning and Development Commission, 2020).

## **2.2.2. Theoretical literature**

It is important to lay out the theoretical underpinnings of the study. This is henceforth undertaken in the sections hereunder.

### **2.2.2.1. Diffusion of Innovation Theory**

The study in hand aims to assess the effect of e-tax system on tax revenue collection in Ethiopia. The e-tax system is an innovation newly presented in an already prevailing manual tax administration and collection system. Hence it is related with the Theory of Diffusion Innovation. The theory was proposed and modified by Everett Rogers in 1995 and in 2003 respectively. The theory has explained how, when and to what extent the new idea, technology or system propagates. According to Rogers (2003) "diffusion is the process by which innovation is transferred over time among the users of the system. Innovation theory dictates the ways innovation can be spread through several stages, including understanding, persuasion, decision, implementation, and confirmation that led to the development". In this study context, taxpayer grasp of doing things in different ways meaning shifting from using manual tax service in to

using e- tax service and its success depends on the environment, whether favorable or unfavorable in accepting the innovation. Person/institutions use innovation and after using they evaluate the results which might be derived from the innovation. For this study case; the results of an innovation are evaluated by testing whether the e-tax system has contributed towards tax revenue collection. The most prominent feature of this theory is that, for some people, the decision of using new innovation depends heavily on the innovation-decisions of other users who previously benefited from the system.

#### **2.2.2.2. The Expediency Theory of Taxation**

In the expediency theory of taxation, it is stated that every tax revenue collection proposal must pass the test of practicability that must be the main consideration when governments are assessing and choosing a revenue collection proposal. Without practicality tax collection proposals are irrelevant, since it is useless to have a tax which cannot be levied and collected efficiently. There are economic, social and political groups that try to protect and promote its own interests and county governments are often forced to reshape tax structure to accommodate the pressures of these groups (Bhartia, 2009). Besides, the administrative set up of tax collection system may not be efficient to collect the tax at a reasonable cost. Taxation can be a powerful set of macroeconomic policy tools to the authorities for remedying economic and social ills of the society such as income inequalities, regional disparities, unemployment, cyclical fluctuations and so on (Bhartia, 2009). The expediency is relevant to this study because it seeks to explain influence of administrative set up, such as efficient E-tax system, on revenue collection.

#### **2.2.2.3. Resource Based View Theory (RBV)**

The role of company managers is crucial to firm-level success competitiveness, since their decisions dictate the selection of resources to be exploited, developed and protected (Sirmon et al., 2007). With regards to e-payments, the adoption has to be based on internal factors to enhance efficiency and improve processes, the knowledge and expertise gained (Somsuk, 2010), which actually creates opportunities for real competitive advantage (Alcina & Inaki, 2013). Adopting e-payments by an organization which is in charge of collecting tax revenue would adequately improve the revenue collection performance for the county. However, if the motivation for adoption of the e-payments system is solely external, the organization

implementing the system might not improve tax revenue collection (Martinez-Costa et al., 2008). The present study finds in that in resource-based view theory revenue collection performance measures are used as the indicators to assess the success of the county in achieving stated strategies, objectives and critical success factors (Hass et al. 2005). This is why this theory was considered as very beneficial to the present study.

The study borrows heavily from the Resource Based View Theory and the expediency theory of taxation. The RBV theory it is stated that an institution adopting e-payments ends up adequately improving its revenue collection performance for the county. The expediency theory of taxation asserts that the need for efficient administrative set up to collect enhance high revenue collection performance.

### **2.3. Empirical literature Review**

In this part of the chapter, different related literatures and studies was critically reviewed and presented. Accordingly, studies on the influence of E-tax system on tax revenue collection anywhere in the world reviewed and presented firstly followed by related literature reviews Ethiopian context.

#### **2.3.1. Global Studies related to the influence of E-tax system on tax revenue collection**

Olaoye&Atilola (2018) conducted a study on the effects of e-taxation on revenue improvement using secondary data gathered from 2012 to 2018. The collected data were analyzed using trend analysis where descriptive statistics such mean, standard deviation, paired sample t-test were used to compare the significances difference between the period before and after electronic taxation. The result of the study shows that there was no significant difference between the period before the inception of e-taxation and the period after e-taxation. Hence it was concluded that e-taxation has not improved tax revenue in the selected areas. Similarly, Monica et al. (2017) explores the effects of the e-tax system on tax collection proficiency in Domestic Tax Revenue Department of Tanzania by collecting data from 130 respondents. Taxpayers' knowledge, electronic tax filing, employees' competence and electronic tax payment are included as explanatory variables in the

study. The collected data were analyzed using both descriptive and inferential statistics. The results revealed that E-taxation systems had significant influence on tax collection efficiency.

Another study by Nasr (2014) on essence of Taxation for sustainable economic development in Malaysia with the aim of revealing the benefits of maintaining a good electronic tax system as disparate to a manual system revealed that the implementation of electronic tax filing and payments in 2004 made an increase of tax revenue collection in Malaysia. The study aimed at revealing the benefits of maintaining a good electronic tax system as disparate to a manual system. The study utilized secondary data from Malaysian Inland Revenue report from 2004 to 2011 to reach to the conclusion. Allahverdi et al. (2017) investigated the effect of electronic taxation system on tax revenue collection and cost in Turkey, by collecting secondary data from Turkish revenue authority, the data were classified and coded in two groups which are pre-e-tax system with a tax period of 1993-2004 and post e-tax system with tax period of 2005-2016. The study employed the Mann-Whitney U Test to analyze the data. The finding of the study reveals that the e-tax system positively affected the tax revenues and reduced the cost per tax.

Ofurumet et al. (2018) in their study on the impact of e-taxation on Nigeria's revenue and economic growth with the objective of assessing how the implementation of e-taxation has affected tax revenue generation to GDP ratio in Nigeria by use of secondary data found out that tax revenue collected to GDP ratio significantly decreased after e-taxation implementation. Masunga et al (2020) conducted a study to examine the influence of the e-tax system on tax revenue collection in Tanzania with the use of secondary data by employing an ex-post-facto research design with paired sample t-test that compared the mean values of the pre and post-e-tax system to confirm if the two sets of means are zero or significantly different from zero. The results of the study depict that the use of the e-tax system and increase in number of registered large taxpayers have positive significant impact on tax revenue generation in Tanzania.

Olaoye and Atilola (2018) investigates the effect of e-tax payment on revenue generation in Nigeria using secondary data on tax revenue covering period pre e-taxation and post e-taxation which spans from the first quarter of 2012 to the second quarter of 2018. The study employed trend analysis, descriptive statistics of mean and standard deviation, paired sample t-test to analyze the collected data. The result of the study depicts that E-tax payment has no

significance effect on capital gain tax, value added tax and company income tax generation in Nigeria. Hence, connoting that e-tax payment had no significant effect on revenue generation in Nigeria. Similarly, Chioma & Onuora (2021) conducted a study on the effect of e-tax payment on revenue generation in Nigeria aiming to determine the effect of e-company income tax payment on revenue generation in the country by collecting secondary data from Federal Inland Revenue Service tax report and CBN Statistical release and Quarterly Economic Reports which covers the period from first quarter of 2012 to second quarter of 2018. The data collected were analyzed using OLS regression method. The results of the study depict that e-company income tax payment has an insignificant positive effect on revenue generation in Nigeria at 5% level of significance.

Another study by Adegbe et al. (2020) explored the effect of electronic payment on revenue generation in Lagos State of Nigeria by collecting data through a structured questionnaire from 366 respondents. The collected data was analyzed with the use of the percentage frequency table, analysis of variance and the multiple linear regression technique. The result of the study reveals that that electronic payment system influenced revenue generation in Lagos State. Alim (2017) also conducted a study on financial inclusion, digital payments and their impact on income and tax revenue around the world using various global secondary datasets. The results of the study suggest a sharp increase in financial inclusion rates and digital payment rates which translate to hundreds of millions of people entering the formal economy and hence improved tax revenue.

### **2.3.3. Empirical Studies in Ethiopia**

Generally, there are few studies have been undertaken on E -taxation system in Ethiopia to the best of the knowledge of the researcher. However, there are few researches on the challenges and opportunities of adopting E-Tax system in case of ERCA Large Tax Payers Office in Ethiopia discussed in the section hereunder.

Dagnachew (2018) conducted a study on the challenges and opportunities of adopting E-Tax system in case of ERCA Large Tax Payers Office by collecting primary data from Large Tax Payers Office staffs. The result of the study shows that the major challenges of the adoption and development of e-tax system were lack of customer awareness, limitation in network infrastructure and internet related support services in Ethiopia. Besides, increase productivity,

reduces paper work, reduce transaction cost, increase reliability and reducing errors are also identified as operational and services benefits from adopting and developing of E-Tax system in the study.

In similar vein, Haymanot (2020) conducted a research to investigate the benefits and practical challenges of e-filing large tax payers in Ethiopia by employing exploratory study and collecting primary data from 138 respondents. The study employed convenience sampling technique to select the most relevant respondents from the target population and the collected primary data was analyzed using descriptive analysis. The finding of the study revealed that e-tax system increased the tax payers' satisfaction, minimized time and cost by avoiding emotional stress resulting from long queue and make them efficient and effective as they can administer their own taxes and created flexibility to timely recording tax credit and to refund tax any time. In addition, the study indicates that unreliable e-filing service and system inefficiency were found to be among the practical challenges faces while using e-filing.

## **2.4. Research Gap**

Firstly, there are few studies have been undertaken on the influence of E –tax system on tax revenue collection in Ethiopia context. As far as the knowledge of the researcher concerned, since its inception of e-tax system, there is no empirical evidence whether the system has achieved its objectives of maximizing tax revenue through tax compliance and the link between e-tax system and tax revenue not clearly substantiated in Ethiopia. It has also remained uncertain and imprecise whether the efforts of registering new large taxpayers in e-tax brackets each year have an association with tax revenue in Ethiopia. Therefore, the motive of this study is to assess the effects of e-tax system on tax revenue collection in Ethiopia large taxpayers.

## **2.5 Conceptual Framework of the Study**

This part of the study presents a conceptual framework that explains the focal collaboration of interrelated variables and their interdependencies in affecting tax revenue collection. The variables in the framework and relations between them are derived from current empirical and theoretical studies on the influence of e taxation system on tax revenue collection.

The conceptual framework incorporates a dependent variable, which is defined as the “tax revenue collection” and three independent variables which are drawn from the aforementioned empirical works reviewed. Tax revenue is positively affected by e-taxation system and number of tax payers (Masunga et al, 2020). E-tax system can increase tax revenue through tax compliance. It results improved tax compliance which in turn tax revenue collection to the government. Economic growth also has a positive effect on tax revenue collection according to Muttaqin and Halim (2019). The proxy for economic growth is per capita income. If the economy of the country grows, so there is a tendency for population income to increase *ceteris paribus*. If the income of the population increases, it will change its consumption patterns which in turn will affect tax revenue (Muttaqin and Halim, 2019). In the context of large taxpayers, if the income of the population increases the demand for the products of large tax payers increases which in turn increase sales revenue that can result higher tax income to the government.

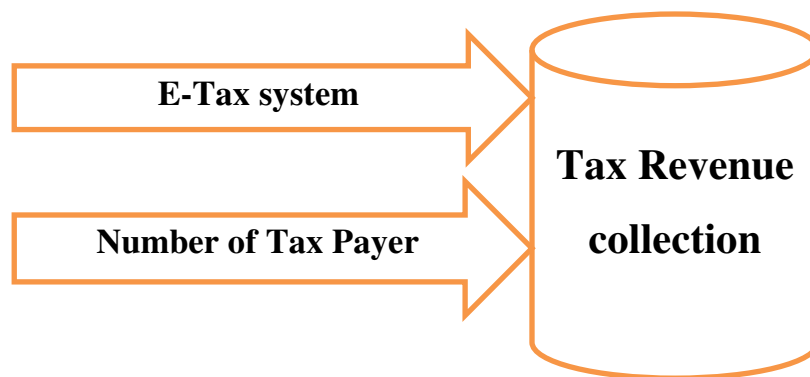


Fig 1: Conceptual framework of the study

## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.1. Introduction**

This chapter deals with the research design and methodology proposed to be used in the study. It also describes the characteristic of the data which was used in the study. Besides, the chapter presents detailed description of sampling methods that were used, procedures, data collection instruments and the procedure of data collection and finally describes the appropriate data analysis methods.

#### **3.2. Research Design and approach**

##### **3.2.1. Research Design**

Research design is a master plan specifying the methods and procedures frame work for collecting and analyzing the required data (Bryman & Bell, 2007). This means it gives the procedure which is necessary for obtaining the information needed to solve the research problems. There are different types of alternatives of research designs that can be employed to study business problems (Hair et al., 2011).

Explanatory study design is one of these research designs. The primary task of explanatory study design is to separate causes and to say to what extent they lead to such effects (Ghauri and Grønhaug, 2005). In other words, it is to explain the causal relationship between variables (Saunders et al., 2009). The main objective of this study is to explore the effect of e-taxation on tax revenue in Ethiopia. Hence it is intended to study the casual relationship between e-taxation system and tax revenue. As a result, the study has employed explanatory research design. This is

because the study is designed to examine the cause and effect relationships between e-taxation and revenue collection in Ethiopia.

### **3.2.2. Research Approach Adopted**

As noted by Creswell, (2003) in terms of investigative study, there are three common approaches to business and social research namely, qualitative, quantitative and mixed methods approach. Qualitative research approach is a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem with intent of developing a theory or pattern inductively Creswell, (2009). According to Creswell, (2009) quantitative research is more appropriate for testing objective theories by examining the relationship among the variables of interest. This method is frequently described as deductive in nature, in the sense that inferences from tests of statistical hypotheses lead to general inferences about characteristics of a population. This method is also frequently characterized by its assumption that there is a single “truth” that exists, independent of human perception Guba and Lincoln, (1994).

Creswell, (2003) also indicated that the researcher tests a theory by specifying narrow hypotheses and the collection of data to support or refute the hypotheses. Finally, mixed methods approach is an approach in which the researchers emphasize the research problem and use all approaches available to understand the problem Creswell, (2003). The objective of this study is to investigate the effect of e-Taxation on tax revenue. In order to achieve the intended objectives necessary data about the dependent and independent variables was gathered. Then, the data was analyzed to identify the causal relationships between these variables. Hence, among the three research approaches discussed above, quantitative approach was used for this paper because it better addressed the research problem and objective of the study.

### **3.3. Source of Data**

According to Mugenda and Mugenda (2003), the sources of data can be classified in two categories such as: primary and secondary sources. Primary data consists of all the data collected throughout the study that directly can be related to the study purpose, both personally gathered as well as data from a third party that has been collected with equivalent purpose. Secondary data on the other hand, contains relevant data that has been collected for a different purpose, but from which the conclusion is valuable for the purpose.

This study mostly relied on secondary sources. Secondary sources used from the Ethiopian federal government tax revenue data of large taxpayers obtained from ministry of revenue. The sources of data is considered to be reliable and relevant because they were obtained from reputable authorities (Masiya&Chafuwa, 2016). The study obtained data from the Ethiopian Ministry of Revenue. Data regarding tax revenue and number of firms was collected from the Ethiopian Ministry of Revenue. The collected data covers years from 2005 to 2020 in two categories before and after e- tax system (from 2005-2012 before e-tax system and from 2013-2020 after e-tax system). In fact, E-taxing was introduced to Ethiopia in a year 2013.

Secondary data was gathered through reviewing credible sources about the information indirectly related to the study. The researcher reviewed books, journals, case studies, thesis, articles, annual reports and electronic sources of information like internet that have information related to e-taxation and its effect on tax revenue collection. The researcher tried to ensure that the data used for the study are from reputable and credible authors to assure that the findings presented in the study were reliable.

### **3.4. Method of Data Analysis**

To meet the objective of the study, the researcher used descriptive analysis. Descriptive analysis was used to create general awareness about the variables in the study. For this purpose, statistical software package called SPSS (for descriptive part) were employed.

#### **3.4.1. Descriptive analysis**

Descriptive statistics is one of the techniques which could be used to summarize information (data) about the dependent and independent variables. Having applied descriptive statistics such as, mean, standard deviation, frequency of appearance, minimum maximum etc. helped the researcher to create general awareness about the variables in the study. In this study, descriptive statistics was employed to examine mean and standard deviation on collected data as deemed necessarily. Besides, T-test which is appropriate test to indicate if the observation between the two sets of mean is zero or different from zero was employed to check if there is significant mean difference before the adoption of the e-tax system and after the adoption of the e-tax system. The independent-samples t-test evaluates the difference between the means of two independent or

unrelated groups. That was used to evaluate whether the mean value of the test variable for one group differs significantly from the mean value of the test variable for the second group (Pallant, 2010).

### 3.5. Operational Definition and Measurement of Variables of the Model

In order to achieve the objectives of the research, the researcher selected different variables that could affect the dependent variables either positively or negatively. Selection of variables was based on empirical literature review as presented under the preceding section that establishes the relationship between independent variables and the dependent variable.

#### 3.5.1. The Dependent Variable

The dependent variable of the model is Tax revenue. It is defined as income that is gained by Ethiopian government through tax collection from large tax payers. It is the total income that the government collected annually from large tax payers.

#### 3.5.2. The Independent Variables

**Number of Large Taxpayers:** it is the number of large tax payers that pay tax each year to the Government of Ethiopia. It is expected to have a positive effect on tax revenue.

**E-taxation:** It is a webenabled and secure platform that provides a fully-integrated and automated solution for administration of domestic taxes. It's measured in terms of dummy variable. A dummy variable that is 0 representing an independent variable before e-tax system and 1 for an independent variable after the e-tax system used to indicate whether the e-tax system has caused significant change on tax revenue collection in Ethiopia. It is expected to have a positive effect on tax revenue. Researchers like Masunga et al (2020) also measured this variable in dummy.

**Table1: Variables and expected sign**

Variables	Expected sign
Number of Large Tax payers	Positive
E-Taxation	Positive

### **3.6. Ethical Considerations**

In the process of conducting the study, there are various ethical considerations that were considered by the researcher. These elements may undermine the reliability and credibility of the research. The first element considered was originality of the data collected. Secondly, the researcher ensured that the findings and conclusions of different authors were correctly cited and referenced accordingly using APA referencing system. This helped the researcher to eliminate any plagiarism which is a major academic offence. The researcher assured the originality of the study and ensures views of other scholars are separated from those of the researcher's in the study.

## CHAPTER FOUR

### 4. DATA PRESENTATION, ANALYSIS AND DISCUSSION

#### 4.1. Introduction

So far important literatures relating to the topic were reviewed and that gives enough understanding about the topic and used to identify knowledge gap on the area. To meet the objective of the study and test research hypotheses under it the research design used for this study also discussed in the preceding chapter.

This section presents the analysis and interpretation of the results obtained from statistical techniques carried out to answer the basic research questions raised in the study. Thus, the analysis of the collected data and discussion of the result is presented in the following sequences; in the first part of this chapter is section 4.2 which contains descriptive statistics of the data, the next section is 4.3 which contains presentation of diagnostic test for the regression model. Then, the results of the regression analysis were presented under section 4.4. Finally, discussions for the results of the regression analysis were made under section 4.5 part of this chapter.

#### 4.2. Descriptive Statistics of the Data

Descriptive statistics is one of the techniques which could be used to summarize information (data) obtained from both primary and secondary sources. By applying descriptive statistics such as mean, standard deviation, frequency of appearance, minimum, maximum etc. one can compare and contrast different categories of sample units with respect to the desired variables. It helps to create general awareness about the variables considered in the study.

##### 4.2.1. Descriptive Statistics of the dependent variable

	N	Minimum	Maximum	Mean	Std. Deviation
Tax Revenue	16	1,796,230,430	79,938,639,961	38,257,856,247	28,440,969,258

*Source: own computation*

Table 2 presents the descriptive statistics of the dependent variable. It shows that the total number of observations, standard deviation of the dependent variable, and the minimum and the maximum values of the variable which were summarized from the data. As mentioned before the tax revenue is the dependent variable. Table 2 above shows tax revenue collected from large tax payers in Ethiopia ranges between birr 1,796,230,430 and 79,938,639,961 with an average of 38,257,856,247 during the time period.

This indicates that Ethiopian government collected birr 38,257,856,247 on averages from the large tax payers of the country from 2005 to 2020.

#### 4.2.2. Descriptive Statistics of the independent variables

	N	Minimum	Maximum	Mean	Std. Deviation
Number of Firms	16	662.00	1,682.00	1051.625	273.8196182
E-taxation	16	0.00	1.00	0.5	0.516397779

*Source: own computation*

Table 3 presents the descriptive statistics of the independent variables. It shows that the total number of observations, standard deviation of the independent variables, and the minimum and the maximum values of the variables which were summarized from the data. The mean number of large tax payer firms was 1051 between the periods from 2005-2020 where the minimum and the maximum were 662 and 1,682 percent respectively.

#### 4.2.3. Paired Sample T-Test

The paired sample *t*-test/the dependent sample *t*-test/ used to determine whether the mean difference in tax revenue between pre and post e-tax system is zero.

**Table 4: Paired Samples Statistics**

	Mean	N	Std. Deviation	Std. Error Mean
Pre E-taxation revenue	13,063,465,338.18	8	10,356,926,756.14	3,661,726,570.76
Post E-taxation revenue	63,452,247,156.04	8	13,236,055,359.01	4,679,652,250.26

*Source: Owen Computation*

**Table 5: Paired Samples t-test**

	Paired Differences				T	df	Sig. (2- taile d)
	Mean	Std. Deviation	95% Confidence Interval of the Difference				
			Lower	Upper			
Post E- taxation – Pre E- taxation	50,388,781,818	7,871,151,120	43,808,334,804	56,969,228,831	18.11	7	0.00

*Source: Owen Computation*

The t-test at 5% significance level used to compare the mean values of the pre and post e-taxation system to check if there is significances difference between the mean of two variables. T-test is an appropriate test to indicate if the observation between the two sets of mean is zero or different from zero. The purpose of this test is to determine whether there is statistical evidence that the mean difference between before e-taxation system and post e-taxation is significantly different from zero Applying the paired t-test is vital because the predictor variable e-taxation is categorized into two aspects, firstly, the before the adoption of the e-tax system is coded with 0 and secondly, the after the adoption of the e-taxation coded with 1.

Table 4 above show that the mean value for the tax revenue collected from large tax payers before the inception of the e-tax system and after the adoption of the e-tax system is birr 13,063,465,338.18 and 63,452,247,156.04 respectively. On average, tax revenue collected from large tax payers after the adoption of the e-tax system were 50,388,781,818 birr higher than the tax revenue collected from large tax payers before the inception of the e-tax system. The mean

difference was significant,  $t = 18.11$ ,  $p = .000$ . We reject the null hypothesis in support of the alternative hypothesis, and conclude that the tax revenue collected from large tax payers after the adoption of the e-tax system is significantly higher than tax revenue collected from large tax payers before the inception of the e-tax system.

#### **4.4.2. Discussion of Results**

**E-taxation:** The result of paired samples t-test showed that e-taxation has significant effect on the tax revenue collection from large tax payers in Ethiopia. It is significant at 0% significant level. Thus, the result was in accordance with the expected sign of the study. Therefore, we reject the null hypothesis and accept the alternative hypothesis that the use of the e-tax system has improved tax revenue collection in Ethiopia. Moreover, tax revenue collected from large taxpayers after the e-tax system was adopted was 50,388,781,818 birrs greater on average than tax revenue obtained from large taxpayers before the e-tax system was implemented. This result is supported by the finding of Allahverdi, et al. (2017). This study established that the e-tax system positively affected the tax revenues and reduced the cost per tax in the long run. In similar vein Monica & Makokha (2017) also found similar results that confirmed the adoption and use of the e-tax system has attested significant effect on tax revenue efficiency.

**Number of tax payer firms:** The results the descriptive statistics of independent variable showed that number of large taxpayers has significant effect on the tax revenue collection from large tax payers in Ethiopia. Moreover, the number of large taxpayers after the e-tax system was adopted was greater on average than number of large taxpayers before the e-tax system was implemented. The result agrees with the findings of Masunga et al. (2020).

## **CHAPTER FIVE**

### **5. CONCLUSION AND RECOMMENDATION**

This chapter restates the research problem and provides an overview of the methodology used for the study. Discussion of the major findings that were obtained out of the research, and provision of recommendations and suggestions for further research related to the topic.

## 5.1. Conclusion

Revenue generation is vital for the existence, survival and growth of any country including Ethiopia. Hence identifying the effect of E-taxation on the performance tax collection is very crucial. The main objective of this study was to examine the effects of electronic- tax system on the revenue collection of Ethiopian Ministry of Revenue in case of Large Taxpayers Office. Taking the objectives into account, an extensive review of related literatures was made. Based on the review of the related literature, the study explored a number of important variables for testing and examining their significance in influencing tax revenue collection including e-taxation and the basic questions were formulated to indicate the nature of expected relationships among various variables considered in this study.

Apart from contributing a valuable addition to the current literature on the effects of electronic-tax system on the revenue collection of Ethiopians, the study provides significance information about the effects of electronic- tax system and on the revenue collection of Ethiopia. In addition to e-tax system the study investigated the effect of number of tax payers on tax revenue collection which may provide important contribution in the process of formulating measure that can be taken to improve the tax revenue collection performance of the country.

The explanatory research design and quantitative research method was employed. The necessary secondary data which covers 16 years from 2005 to 2020 was collected from ministry of revenue of Ethiopia. The information collected from these sources was analyzed and interpreted.SPSS 2020 statistical software package were used for the treatment of the collected data. Descriptive statistical tools and techniques such as mean, Minimum, Maximum, Paired Sample T-Test have been utilized for analyzing the collected data. The major findings of such analysis have been briefly summarized below.

- ❖ It was found out that the adoption and use of e-tax system brought a significant and positive effect on tax revenue collection from large tax payers in Ethiopia. The result of the study affirms that the application of the e-tax system influences tax revenue collection.
- ❖ The results also confirm that as the number of tax payer firms increase or as the number of large taxpayers increase in the e-tax system brings a positive and significance influence on tax revenue collection from large tax payers office in Ethiopia.

In conclusion, the result obtained from the study reveals that the performance of on tax revenue collection from large tax payers in Ethiopia is significantly affected by number of tax payers and e-taxation.

## **5.2. Recommendation**

Based on the findings of this study, performance of on tax revenue generation from large tax payers in Ethiopia depend on number of tax payers and e-taxation. Given the finding of this study, it is imperative to design and implement appropriate interventions to enhance revenue collection. The interventions may focus on the following areas:

- ❖ Ministry of revenue of Ethiopia and policy makers should strengthen the capacity of taxpayers to use the e-tax system. This can be in the form of provision of awareness on the benefits of the e-tax system to taxpayers, the government and the general public this is crucial for the government to continue providing the necessary services to its people.
- ❖ The finding of this study has also confirmed that improvement in tax revenue collection depends on the number of tax payers registered in tax bracket. The government should come up with sustainable strategies of to increase the number of taxpayers into the tax system. Hence the government should focus on groups that are not in e-taxation system for register in them in e-tax system. The ministry of revenue and policy makers should design and implement strategies that could help to increase number of tax payers.

## **5.3. Recommendations for future Researches**

This study adds on the body of knowledge by examining the effect of e-tax system on tax revenue collection. However, there is a need for further researches as well. The present study examined the effect of e-tax system on tax revenue collection by focusing on large taxpayers in Ethiopia through collecting secondary data. The collection of data only from secondary source presents a limited comprehension on the problem under investigation because it lacks the insight perceptions from taxpayers' description on the application and impact of the e-tax system. Hence researchers can conduct a study on the effect of e-tax system on tax generation by collecting both quantitative and qualitative data to have more a realistic picture on the topic.

## Reference

- Adegbe, Folajimi, F., & Akinyemi, O. (2020). Electronic Payment System and Revenue Generation in Lagos State, *Journal of Accounting and Financial Management* Vol 6. No. 1 ,59-81
- Akpubi M. D., & Igbekoyi O.E. (2019). Electronic taxation and tax compliance among some selected fast-food restaurants in Lagos state, Nigeria (taxpayer's perspective), *European Journal of Accounting, Auditing and Finance Research*, 7(7), 52-80.
- Alan, C., (2013). Key issues and debates in VAT, SMS taxation and the treatment of the financial sector. *International tax Dialogue*.
- Alcina, A.S., and Inaki, H.(2013).ISO 9001 and Business Performance: A Quantitative Study in Portuguese Organizations, *Revista de management comparat international/review of international comparative management*, 2013, vol. 14, issue 1, 14-32.<http://rmci.ase.ro/no14vol1/02.pdf>

- Allahverdi M. &Kuzucu S. C. (2017). E-Transformation Process of Azerbaijan Tax System and The Effect to Tax Revenue, Innovation and Global Issues InSocialSciences Extended Abstracts Book, Antalya, 773-777.
- Allahverdi, M., Alagö, A., &Ortakarpuz, M. (2017). The Effect of E-taxation System on Tax Revenues and Costs: Turkey Case The Effect Of E-Taxation System On Tax Revenues And Costs : Turkey Case. (November).
- Bhartia, H. L. (2009). Public Finance. 14th ed. New Delhi: Vikas Publishing House PVT Ltd.
- Bryman, A., & Bell, E. (2007). Business research methods. Oxford: Oxford University Press
- ÇetinG.(2010).BilişimTeknolojilerindekiGelişmelerinVergilemedeKayıtDüzeniveDenetimUygulamalarınaEtkisi. EkonomiBilimleriDergisi. Cilt 2, Sayı 1, 79-86.
- Chatama, Y. J. (2013). The impact of ICT on Taxation: the case of Large Taxpayer Department of Tanzania Revenue Authority. *The Information Society*, 18(1).101–112.
- Chioma,E.,&Onuora,j.(2021) . Effect of E-Tax Payment on Revenue Generation in Nigeria, *International Journal of Innovative Finance and Economics Research* 9(2):42-51
- Cobham, A. 2005 *Tax evasion, tax avoidance and development finance*. Queen Elisabeth House orking Paper No. 129. Oxford: Oxford University.
- Coccia, M. (2018). Optimization in R&D intensity and tax on corporate profits for supporting labor productivity of nations. *Journal of Technology Transfer*, 43(3), 792– 814. <https://doi.org/10.1007/s10961-017-9572-1> (Guliya et.al, 2018)
- Coulibaly, B. S., & Gandhi, D. (2018). Mobilization of tax revenues in Africa State of play and policy options. Retrieved from <http://www.un.org/esa/ffd/overview/monterrey-conference.html>
- Creswell, J. (2003). Research Design Qualitative, Quantitative and Mixed. 2nd ed. USA: SAGE publication.
- Creswell, J. W., & Plano Clark, V. L. (2011). Designing and conducting mixed methods research (2nd ed.). Thousand Oaks, CA: Sage, USA.
- D, C. O. P. (2019). Effects of Electronic-Taxation on Tax Productivity in Nigeria (2008-2018 ). 6(12), 1–16

- Dagnachew, T. (2018). *Challenges and opportunities of adopting e-tax system in the case of ERCA (LTO)* (Master's thesis, St. Mary's University).
- Dečman, M. & Klun, M. (2015). The Impact of Information Systems on Taxation: A Case of Users' Experience With an e-Recovery Information System. *The Electronic Journal of e-Government*. V: 13, Issue: 2, 110-121
- ERCA, (2017). Large tax payers branch office E-Tax Experience. annual report for budget year 2016/17
- ERCA, (2020). Large tax payers branch office E-Tax Experience. annual report for budget year 2019/20
- Federal Democratic Republic of Ethiopia (2015), 'Growth and Transformation Plan II (GTP II) (2015/16-2019/20)', <https://ethiopia.un.org/sites/default/files/201908/GTPII%20%20English%20Translation%20%20Final%20%20June%2021%202016.pdf>.
- Federal Democratic Republic of Ethiopia Planning and Development Commission (2020), *Ten Years Development Plan: A Pathway to Prosperity 2021-2030*, Addis Ababa, Ethiopia.
- FIAS. 2009. "Taxation as State Building: Reforming Tax Systems for Political Stability and Sustainable Economic Growth." World Bank Group, Washington, DC.
- Fu J.R, Farn, C.K and Chao, W.P. (2006). "Acceptance of electronic tax filing: a study of taxpayer intention", *Inform. Manage.* 43, 109-126.
- Ghauri, P. N., & Grønhaug, K. (2005). *Research Methods in Business Studies: A Practical Guide*. London: Pearson Education.
- Giulia, M, Andualem T. M., and Firew B (2018) . Can ICTs Increase Tax? *Experimental Evidence from Ethiopia*. ICTD Working Paper 82, institute of Development Studies 2018
- Guba EG, Lincoln YS. Competing paradigms in qualitative research. In: Denzin NK, Lincoln YS, editors. *Handbook of Qualitative Research*. Thousand Oaks, CA: Sage; 1994. pp. 105–117.
- Gujarati, D. (1995). *Basic Econometrics* (3<sup>rd</sup> Ed). McGraw- Hill, Inc, Singapore

- Haimanot, T.(2020). *Benefit and challenges of electronic tax filing system: the case of Ethiopian Ministry Of Revenue Large Taxpayers Branch Office [LTO]*(Master's thesis, Addis Ababa University).  
<http://213.55.95.56/bitstream/handle/23456789/22074/Haymanot%20Tesfaye.pdf?sequence=1&isAllowed=y123456789/22074/Haymanot%20Tesfaye.pdf?sequence=1&isAllowed=y>
- Hair, Joseph F, Barry J Babin, Arthur H Money, and Phillip Samouel (2003). *Essentials of Business Research Methods* (International ed.). Hoboken, NJ: JohnWiley& Sons, Inc
- Harries,T and Seid, E.(2021). *2019/20 survey of the Ethiopian tax system*.Institute for Fiscal Studies
- Jimenez, G., Sionnaigh N. M. and Kamenov A. (2013). *Information Technology for Tax Administration, Usaid's Leadership In Public Financial Management, USA*, 1-52
- Julia ,Kagan. (2021 May 24). *What Is Taxation?* Received from <https://www.investopedia.com/>
- Kirti, & Agrawal, N. (2014). Impact of E-commerce on Taxation. *International Journal of Information and Computation Technology*. 4(1), 99–106. Retrieved from [http://www.ripublication.com/irph/ijict\\_spl/ijictv4n1spl\\_16.pdf](http://www.ripublication.com/irph/ijict_spl/ijictv4n1spl_16.pdf)
- Lymer,A., and Oats, L. (2009). *Taxation: Policy and Practice*. 16th ed. Birmin Fiscal Publications
- Maherali, Alim. 2017. *Financial Inclusion, Digital Payments and Their Impact on Income and Tax Revenue Around the World*. Master's thesis, Harvard Extension School
- Maisiba J. G. &Atambo W. (2016). Effects of Electronic- Tax System on the Revenue Collection Efficiency of Kenya Revenue Authority: A Case of Uasin Gishu County. *Imperial Journal of Interdisciplinary Research (IJIR)*. Vol: 2, Issue: 4, 815-827
- Martinez, A. R., Costa, M. M. , and Choi T. Y.,( 2008)."Simultaneous consideration of TQM and ISO 9000 on performance and motivation: An empirical study of Spanish companies", *International Journal of Production Economics*, vol. 113, pp. 23-39,
- Masiya, M., &Chafuwa, C. (2016). Determinants of Tax Revenue in Malawi. *SSRN Electronic Journal*, 4(2), 1–12.<https://doi.org/10.2139/ssrn.2887852>

- Masunga, J., Mapesa, J., and Nyalle, A.(2020). Influence of E-tax System on Tax Revenue Collection in Tanzania Large Taxpayers: A Prior and Posterior Analysis. *Journal of Accounting, Finance and Auditing Studies*, 6(4), 44-63. DOI: 10.32602/jafas.2020.027
- Monica, F. W., & Makokha, E. N. (2017). Effects of Electronic Tax System on Tax Collection Efficiency in Domestic Taxes Department of Kenya Revenue Authority , Rift Valley Region. *European Journal of Business and Management*, 9(17), 51–58. <https://doi.org/10.1189/jlb.1203638>.
- Mugenda, O. M & Mugenda, A. G, (2003). *Research, Qualitative and Quantitative Approaches*. Nairobi: ACTS Press.
- Mutakin, F., and Halim, E. (2019). The Effect of Economic Growth and Inflation on Tax Revenue: Analysis on Areas with Dominant Economic Activities in Agriculture, Plantation, and Fisheries Sectors, *Advances in Economics, Business and Management Research*, 3(135), 27-33
- Muttaqin, F. and Halim E. (2019). The Effect of Economic Growth and Inflation on Tax Revenue: Analysis on Areas with Dominant Economic Activities in Agriculture, Plantation, and Fisheries Sectors, *Advances in Economics, Business and Management Research*, volume 135. 3rd Asia Pacific International Conference of Management and Business Science
- Nasr, J. (2014). Taxation is essential for sustainable economic development. 2012– 2015. Retrieved from <https://www.doingbusiness.org/content/dam/doingBusiness/media/AnnualReports/English/DB14-Chapters/DB14-Implementing-electro>
- National planning Commission (2018). *The Second Growth and Transformation Plan (GTP II) Midterm Review Report*
- Nightingale K., (2002). *Taxation: Theory and Practice*, 4th ed, Printince Hall.
- OECD. (2012). *Economics Policy Reforms 2012: Going for Growth*. In OECD Publishing. Retrieved from <http://dx.doi.org/10.1787/growth-2012-en>
- OECD. (2021). *Revenue statistics in Africa 2021*

- Ofurumet, C. N., Amaeful, L. I., Okonya, B. E., & Amaeful, H. C. (2018). Impact of ETaxation on Nigeria's Revenue and Economic Growth: A Pre-Post Analysis. *International Journal of Finance and Accounting*, 7(2), 19–26. <https://doi.org/10.5923/j.ijfa.20180702.01>
- OLAOYE, C. O., & ATILOLA, O. O. (2018). Effect of E-Tax Payment on Revenue Generation in Nigeria. *Journal of Accounting, Business and Finance Research*, 4(2), 56–65. <https://doi.org/10.20448/2002.42.56.65>
- Pallant.J. (2010).*SPSS Survival Manual*. Berkshire: Open College Press
- Proclamation No. 1/1995, 'Constitution of the Federal Democratic Republic of Ethiopia Proclamation'
- Rogers, E.M. (2003). *Diffusion of innovations* (5th ed.). New York: Free Press.
- Ruta,Y.(2017). *Assessment of electronic tax filing system in selected branch offices of Ethiopian Revenues and Customs Authority (ERCA)* (Master's thesis, St. Mary's University). [http://197.156.93.91/bitstream/123456789/3180/1/Ruta%20Yoseph\\_Thesis.pdf](http://197.156.93.91/bitstream/123456789/3180/1/Ruta%20Yoseph_Thesis.pdf)
- Saunders, Mark & Lewis, Philip & Thornhill, Adrian & Bristow, Alex. (2009). "Research Methods for Business Students" Chapter 4: Understanding research philosophy and approaches to theory development.
- Sirmon, David & Hitt, Michael & Ireland, R.. (2009). *Managing Firm Resources in Dynamic Environments to Create Value: Looking Inside the Black Box*. *Academy of Management Review*. 32. 10.5465/AMR.2007.23466005.
- Somsuk, Nisakorn. (2010). Theoretical perspectives in quality management implementation: A literature review. *IEEM2010 - IEEE International Conference on Industrial Engineering and Engineering Management*. 916-920. 10.1109/IEEM.2010.5674214.
- <terms/t/taxation.asp>
- Tesfaye, A. (2015). *Determinants of Tax Revenue in Ethiopia*. MA thesis, Addis Ababa University

Wasao, D. (2014). The Effect of Online Tax System on Tax Compliance among Small Taxpayers in East of Nairobi Tax District. *International Journal for Management Science and Terchnology*, 2(3), 35–41.

Waweru F. (2013). Automating Public Financial Management in Developing Countries, Faculty Research Working Paper Series, John F. Kennedy School of Government, Harvard University, Cambridge, MA.

## Appendixes

### Appendix 1

#### SPSS output descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Number of Firms	16	662.00	1682.00	1051.6250	273.81962
Yearly Inflation rate	16	8.14	44.39	18.4075	9.10297

Gross domestic product	16	10541500000.00	2108374142513.0	941624798469.56	718132885856.40
			0	25	550
E-taxation	16	0	1	.50	.516
Valid N (listwise)	16				

## Appendix 2

### Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pre E-taxation revenue	13063465338.1800	8	10356926756.14374	3661726570.76082
Pair 1				
post E-taxation revenue	63452247156.0388	8	13236055359.00658	4679652250.25705

### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Tax Revenue	16	1796230430.18	79938639961.21	38257856247.109	28440969258.498
				4	42

Valid N (listwise)	16				
--------------------	----	--	--	--	--