

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

THE IMPACT OF TAX AUDIT AND INVESTIGATION ON REVENUE PERFORMANCE: THE CASE OF ADDIS ABABA CITY ADMINISTRATION REVENUE BUREAU LARGE TAXPAYER BRANCH OFFICE

BY

ALEMAYEHU KASSU W/GIORGIS

A THESIS SUBMITTED TO THE DEPARTMENT OF ACCOUNTING & FINANCE IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE (MSC) IN ACCOUNTING & AUDITING

ADVISOR: DR. KELIFA SRMOLO KEMAL

JUNE, 2026

ADDIS ABABA, ETHIOPIA

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

THE IMPACT OF TAX AUDIT AND INVESTIGATION ON REVENUE PERFORMANCE: THE CASE OF ADDIS ABABA CITY ADMINISTRATION REVENUE BUREAU LARGE TAXPAYER BRANCH OFFICE

BY

ALEMAYEHU KASSU W/GIORGIS

A THESIS SUBMITTED TO THE DEPARTMENT OF ACCOUNTING & FINANCE IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE (MSC) IN ACCOUNTING & AUDITING

ADVISOR: DR. KELIFA SRMOLO KEMAL

JUNE, 2026

ADDIS ABABA, ETHIOPIA

STATEMENT OF ORIGINALITY

I hereby declare that the thesis entitled **"The Impact of Tax Audit and Investigation on Revenue Performance: A Case Study of the Addis Ababa City Administration Revenue Bureau, Large Taxpayer Branch Office"**

is my original work. It has not been presented for the award of any degree, diploma, or certificate in any other university or institution.

All sources of materials used in this study have been duly acknowledged and properly cited in accordance with academic standards.

Name: Alemayehu Kassu Woldegiorgis

Signature: _____

Date: 13 June 2026

Department of Accounting and Finance

Addis Ababa University

DECLARATION

I, the undersigned, hereby declare that this thesis, entitled **"The Impact of Tax Audit and Investigation on Revenue Performance: A Case Study of the Addis Ababa City Administration Revenue Bureau, Large Taxpayer Branch Office,"** is entirely my original work.

I further confirm that this work has not been presented, either in part or in full, for the award of any degree, diploma, or certificate at any other university or institution.

All sources of information and materials consulted in the course of this research have been duly acknowledged and referenced in accordance with accepted academic and ethical standards.

Name: Alemayehu Kassu Woldegiorgis

Signature: _____

Date: 13 June 2026

APPROVAL PAGE

This thesis entitled **"The Impact of Tax Audit and Investigation on Revenue Performance: A Case Study of the Addis Ababa City Administration Revenue Bureau, Large Taxpayer Branch Office"** has been examined and approved as fulfilling the requirements for the award of the degree.

Student Name: Alemayehu Kassu W/giorgis
Signature: _____
Date: 13 June 2026

Advisor Name: _____
Signature: _____
Date: _____

Examiner Name: Habtamu Berhanu (PhD)
Signature: Habtamu
Date: June 13, 2026

Examiner Name: _____
Signature: _____
Date: _____

ACKNOWLEDGEMENTS

I would like to express my deepest gratitude to **Dr. Kelifa Srmolo Kemal,** whose encouragement, insightful guidance, and professional expertise were instrumental in the successful completion of this thesis. His constructive feedback, critical perspectives, and unwavering support were invaluable throughout the research process.

I am also sincerely grateful to **Mrs. Tefaye Negash** for meticulously reviewing and refining the manuscript. Her attention to detail ensured clarity, coherence, and precision in the presentation of the thesis.

My appreciation extends to the **Inland Revenue Bureau and the staff of the Addis Ababa Large Taxpayers Branch Office** for their cooperation and assistance in providing critical data and practical insights necessary for this study.

Finally, I extend my heartfelt gratitude to my family, friends, and colleagues, whose moral support, encouragement, and constructive feedback provided a constant source of motivation throughout the preparation and completion of this thesis.

ABSTRACT

This study examines the contribution of tax audit and investigation practices to revenue performance at the Addis Ababa Large Taxpayers Branch Office, focusing on how these activities enhance tax revenue collection and taxpayer compliance within the Ethiopian tax administration system. A mixed-methods research design was employed, combining quantitative and qualitative approaches. Primary data were collected from tax officials and selected taxpayers using structured questionnaires, while secondary data were obtained from institutional reports, policy documents, and relevant literature. The data were analyzed using descriptive statistics and regression analysis to determine relationships between key variables. The findings reveal that tax audit and investigation practices have a positive and statistically significant effect on revenue performance. Specifically, regular tax audits, effective enforcement of penalties, and risk-based audit selection were found to improve revenue collection efficiency, enhance resource allocation, and strengthen compliance. Tax investigations also play a crucial role in identifying complex tax non-compliance and recovering unpaid taxes. However, the study identified challenges such as inadequate technological infrastructure, limited audit coverage, and shortage of skilled personnel, which constrain effectiveness. Overall, the study concludes that strengthening institutional capacity through technological improvement, expanded audit coverage, risk-based auditing, and continuous staff development is essential for improving compliance, reducing revenue leakage, and enhancing sustainable domestic revenue mobilization in Ethiopia.

Keywords: *Tax audit, tax investigation, revenue performance, taxpayer compliance, risk-based audit, penalty enforcement, domestic revenue mobilization*

TABLE OF CONTENT

STATEMENT OF ORIGINALITY i
DECLARATION ii
APPROVAL PAGE iii
ACKNOWLEDGEMENTS iv
ABSTRACT v
LIST OF TABLES ix
LIST OF FIGURES x
CHAPTER ONE 1
INTRODUCTION 1
1.1 Background of the Study 1
1.2 Statement of the Problem 2
1.3Research Questions 3
1.4 Objectives of the Study 4
1.4.1 General Objective 4
1.4.2 Specific Objectives 4
1.5 Hypothesis of the Study 5
1.6 Significance of the Study 5
1.7 Scope of the Study 6
1.8 Limitations of the Study 6
1.9 Organization of the Study 6
CHAPTER TWO 7
LITERATURE REVIEW 7
2.1 Introduction 7
2.1.1 Historical Context of Tax Audits and Investigations 7
2.1.2 Tax Audit 7
2.1.3 Tax Investigation Audit 8
2.2.1 Adopted Theoretical Framework 11
2.2.2 Summary of Theoretical Framework 13

2.3 Empirical Review of the Impact of Tax Audits & Investigations on Revenue Performance....14
2.3.1 Empirical Evidence on Tax Audits and Revenue Collection....14
2.3.2 Empirical Studies in Ethiopia....19
2.3.3 Comparative Insights: Contrasts and Convergences....19
2.3.4 Conclusion and Research Implications....20
2.4 Research Gaps Identified from Empirical Review....21
2.5 Conceptual Framework....23
CHAPTER THREE....25
RESEARCH METHODOLOGY....25
3.1 Research Design....25
3.2 Research Approach....25
3.3 Population and Sampling Techniques....25
3.3.1 Target Population....25
3.3.2 Sampling Techniques....26
3.3.3 Sample Size Determination and Margin of Error....26
3.4 Data Sources and Collection Methods....27
3.5 Data Analysis Techniques....28
3.6 Validity of the Research....28
3.7 Ethical Considerations....28
CHAPTER FOUR....29
DATA PRESENTATION, ANALYSIS, AND DISCUSSION....29
4.1 Introduction....29
4.2 Response Rate and Instrument Return Summary....30
4.2.1 Questionnaire Distribution and Response Rates....30
4.2.2 Data Screening and Completeness Evaluation....31
4.2.3 Implications for Analytical Validity....33
4.3 Respondents' Profile / Demographic Characteristics....33
4.3.1 Gender Distribution of Respondents....33
4.3.2 Age Distribution of Respondents....34

4.3.3 Educational Background of Respondents 36
4.3.4 Work Experience of Respondents 37
4.3.5 Position/Role of Respondents 38
4.4 Business Sector of Taxpayer Respondents 40
4.5 Descriptive analysis of Audit Planning and Selection (Risk-Based Systems) 41
4.5.1 Audit Prioritization and Selection of Large Taxpayers 41
4.5.2 Audit Planning Practices and Processes 43
4.6 Descriptive Statistics of Taxpayer Compliance Behavior 44
4.6.1 : Audit Frequency and Compliance Behavior 45
4.6.2 Audit Frequency and Probability 46
4.6.3 Penalty Enforcement and Compliance Behavior 47
4.6.4 Perception of Audit Quality 48
4.6.5 Perception of Audit Fairness and Transparency 49
4.7 Revenue Trend Analysis of AALTP (2019–2023) 51
4.8 Multiple Regression Analysis of Factors Affecting Taxpayer Compliance Behavior 54
4.8.1 Model Specification 55
4.8.2 Descriptive Statistics and Correlations 56
4.8.3 Regression Results 57
4.9 Hypothesis Testing 57
4.10 Discussion of Findings 58
CHAPTER FIVE 63
CONCLUSION AND RECOMMENDATIONS 63
5.1 Introduction 63
5.2 Conclusions 63
5.3 Recommendations 63
5.4 Areas for Future Research 64
REFERENCES 66

LIST OF TABLES

Table 2.1: Distinction between Tax Audit and Tax Investigation.....10
Table 2.2 : Relationship Between Audit Types and Revenue Impact.....16
Table 4.1: Questionnaire Distribution & Response Summary 30
Table 4.2: Data Screening and Completeness Evaluation..... 32
Table 4.3: Gender Distribution of Respondents.....34
Table 4.4: Age Distribution of Respondents.....35
Table 4.5: Educational Background of Respondents.....36
Table 4.6: Work Experience of Respondents.....37
Table 4.7: Position/Role of Respondents.....38
Table 4.8: Business Sector Distribution of Taxpayer Respondents.....40
Table 4.9: Audit Selection Criteria Used by AALTBO.....41
Table 4.10: Frequency of Audit Panning Activities.....43
Table 4.11: Audit Frequency and Compliance Behavior 44
Table 4.12: Audit Frequency and Probability 45
Table 4.13: Penalty Enforcement and Compliance Behavior 46
Table 4.14: Perception of Audit Quality.....47
Table 4.15: Perception of Audit Fairness and Transparency.....49
Table 4.16: Audit Activity & Revenue Performance Indicators.....51
Table 4.17: Correlation Matrix of Variables.....52
Table 4.18: Multiple Regression Results.....53
Table 4.19: Descriptive Statistics and Pearson Correlation.....55
Table 4.20: Multiple Regression Predicting Taxpayer Compliance Behavior.....56
Table 4.21: Summary of Hypothesis Testing Results.....57

LIST OF FIGURES

Figure 2.1: Conceptual Framework of the Study 21
Figure 3.1: Research Methodology Overviews.....25
Figure 4.1: Questionnaire Distribution & Response Summary 28
Figure 4.2 : Data Screening and Completeness Evaluation.....28
Figure 4.3: Perception of Audit Fairness and Transparency.....45

LIST OF ACRONYMS

Acronym	Definition
AALTBO	Addis Ababa Large Taxpayers Branch Office
AfDB	African Development Bank
ETB	Ethiopian Birr
FIRS	Federal Inland Revenue Service (Nigeria)
GRA	Ghana Revenue Authority
HMRC	Her Majesty's Revenue and Customs (UK)
IMF	International Monetary Fund
IRS	Internal Revenue Service (USA)
KRA	Kenya Revenue Authority
MoR	Ministry of Revenue (Ethiopia)
OECD	Organization for Economic Cooperation and Development
RDD	Regression Discontinuity Design
SARS	South African Revenue Service
VAT	Value Added Tax

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Taxation serves as the primary revenue collection mechanism for governments, enabling the provision of public services, infrastructure development, and sustainable economic growth (Musgrave, 1959; Bird, 2015). An efficient tax administration system is essential for promoting voluntary compliance, correcting fiscal imbalances, and achieving equitable economic development (Alm, 2012; Kirchler, 2007). However, tax systems worldwide continue to face challenges such as income manipulation, tax evasion, and fraud, which distort revenue collection (Andreoni et al., 1998; Torgler, 2007). In response, tax audits and investigations have become key tools for addressing noncompliance and improving revenue performance. Empirical evidence shows that effective audit and investigation systems significantly enhance tax compliance. Countries with structured, risk-based audit systems tend to have lower levels of tax evasion and higher tax-to-GDP ratios (OECD, 2022). For example, OECD reports highlight that risk-based audit selection improves revenue efficiency and resource allocation (OECD, 2017). Similarly, studies in the United States show that even small increases in audit probability lead to significant increases in reported taxable income, demonstrating the strong deterrent effect of audits on noncompliance (Slemrod et al., 2001; Kleven et al., 2011).

In the United Kingdom, enforcement actions such as criminal prosecutions for tax evasion have been shown to increase tax payments in targeted sectors by strengthening deterrence and improving compliance behavior (HM Revenue & Customs [HMRC], 2020). In many developed countries, tax administrations have further enhanced compliance outcomes by adopting advanced digital technologies, data analytics, and risk-based audit strategies. These tools enable more efficient allocation of resources by focusing enforcement efforts on high-risk taxpayers, although compliance challenges still persist (OECD, 2021; OECD, 2022).

Developing countries generally face significant constraints in effectively implementing advanced tax compliance and enforcement approaches such as risk-based auditing, digital tax administration, and data-driven enforcement systems. These limitations are largely due to weak institutional capacity, insufficient financial and human resources, and underdeveloped technological infrastructure (IMF, 2022; OECD, 2021). As a result, tax administrations in these

countries often struggle to fully utilize modern tools that enhance compliance and improve revenue performance.

This results in massive revenue leakage on potential tax collections lost annually. Still, some African countries are making headway with enhanced audit and investigative capabilities. For example, increased audit coverage in Kenya enables better corporate tax compliance across years, while investigations in South Africa has led to improved voluntary disclosures. Also in Nigeria, investigations have reduced tax fraud and resulted in significant revenue collection.

Despite this progress, some tax administrations on the continent still struggle, for example, with lack of resources, manual audit procedures, and high-risk sectors (including real estate; import- export businesses; and multinational companies with transfer pricing). In Ethiopia tax revenues are not collected to their fullest potential, predominantly because of widespread non-compliance and enforcement problems.

Based on Ethiopian Ministry of Revenue, at least 26% of revenues were not collected annually from tax evasion, under-reporting, fraudulent financial transactions, abuse of privileges and tax avoidance activities. As a measure to address the problem, the government has launched series of legal and institutional reforms including new tax proclamations and directives to establish a comprehensive basis for audit, investigation and risk-based taxpayer selection. Still, enforcement has been constrained by the absence of technologically advanced infrastructure, shortage of skilled personnel, weak forensic audit capacity and tax payer resistance. The Addis Ababa Large Tax Payers Branch Office would also be very critical, since it deals with some of the larger corporate taxpayers which pay most the government revenues. Tax compliance would be more difficult for these taxpayers because their financial activities and transactions are more complex.

Major challenges relate to coverage constraints of audit, partly inconsistent enforcement of findings, inadequate deployment of digital audit tools, and persistent taxpayer resistance. The latter issues clearly need to be addressed to ensure effective revenue collection in Ethiopia.

1.2 Statement of the Problem

Taxation is the major component of state revenue generation that sustains the functioning of government and the country's economic development, though Ethiopia is yet to achieve its revenue. Tax non-compliance, under-reporting, and tax evasion have been prevalently and largely among large corporate taxpayers data indicating large-scale revenue leakage (MoR, 2022). Fortunately, various international and African experiences demonstrate that the use of

tax audits and investigations as a revenue administration tool is highly effective in addressing non-compliance and improving revenue performance (OECD, 2021; IMF, 2022; World Bank, 2020; ATAF, 2020). Evidence from developed countries shows that strengthened audit systems and enforcement mechanisms significantly increase tax compliance and declared income (Slemrod et al., 2001; Kleven et al., 2011; Slemrod, 2016). Similarly, experiences from African revenue administrations indicate that the adoption of risk-based audit strategies and investigative practices enhances efficiency in revenue collection and supports better compliance outcomes (African Tax Administration Forum [ATAF], 2020; OECD, 2021).

Though, current enforcement efforts are hampered by a paucity of resources, limited forensic audit capacity, obsolete information systems, and the continued opposition of taxpayers. In addition, the good administrations of the Ministry of Revenue with Proclamation Nos. 983/2016 and 979/2016, Directive No. 73/2020 etc. have had limited practical effect due to limited audit coverage and weak enforcement of investigation results (Hawassa VAT Study, 2022; Large Taxpayer Audit Assessment, 2020).

The problem is more visible at the Addis Ababa Large Taxpayers Branch Office (AALTBO), which manages the largest and most complex taxpayers in the country. These taxpayers are responsible for a very large share of the revenue collected by the government but their complexity in financial flows has made monitoring and enforcing their tax obligations very difficult. The main reasons are limited audit coverage, manual nature of audit, and generally low e-Tax Adoption and taxpayer resistance (e-Tax Adoption Study, 2024).

These have led to large below-divergence achievement and low recovery, thereby affecting total revenue performance. But considering this limitations, the need to have a better understanding of the relationship between tax audits and investigations and revenue performance cannot be overemphasized. The gap identified in this study is the lack of sufficient understanding and empirical evidence on how tax audit and investigation practices affect revenue performance among large taxpayers in Addis Ababa, particularly in explaining low recovery and below-target revenue achievement, as well as the enforcement gaps that limit their effectiveness

1.3 Research Questions

This study aims to assess the effectiveness of tax audits and investigations in enhancing revenue collection and taxpayer compliance at the Addis Ababa Large Taxpayers Branch Office

(AALTBO). Based on the research problem, the study seeks to answer the following key questions:

1. How does the frequency of tax audits influence voluntary compliance among large taxpayers in Addis Ababa?
2. To what extent does risk-based audit selection improve the efficiency of revenue collection?
3. What is the role of tax investigations in detecting non-compliance and recovering lost tax revenue?
4. How do penalty enforcement measures and legal actions affect future taxpayer compliance behavior?
5. What are the major administrative and operational challenges that limit the effectiveness of tax audits and investigations?

These research questions will guide the study in identifying practical policy recommendations and enforcement strategies to strengthen Ethiopia's tax administration system.

1.4 Objectives of the Study

1.4.1 General Objective

The general objective of this study is to assess the impact of tax audits and investigations on revenue collection and taxpayer compliance at the Addis Ababa Large Taxpayers Branch Office (AALTBO). Specifically, the study aims to evaluate the effectiveness of these enforcement mechanisms in enhancing voluntary compliance, detecting tax evasion, and optimizing revenue generation.

1.4.2 Specific Objectives

To achieve the general objective, the study will focus on the following specific objectives:

1. To examine the relationship between the frequency of tax audits and voluntary compliance among large taxpayers in Addis Ababa.
2. To assess the effectiveness of risk-based audit selection in enhancing tax enforcement and revenue collection.
3. To analyze the impact of tax investigations in detecting non-compliance and recovering lost revenue.
4. To evaluate the impact of penalty enforcement and legal actions on taxpayer behavior and future compliance rates.

5. To identify the key administrative and operational challenges affecting the efficiency of tax audits and investigations.

This structured approach provides a comprehensive evaluation of tax enforcement mechanisms and their contribution to enhancing revenue performance.

1.5 Hypothesis of the Study

The hypotheses of this study are derived from the research questions and formulated as directional (one-tailed) hypotheses based on theoretical and empirical evidence. Drawing from Deterrence Theory and Tax Compliance Theory, the study assumes that effective tax audits and investigations positively influence revenue performance.

Specifically, the study examines how tax audit frequency, audit methods and techniques, and tax investigation activities affect revenue collection efficiency at the Addis Ababa Large Taxpayers Branch Office (AALTBO).

Directional (Alternative) Hypotheses (H_1)

H_{11}: The frequency of tax audits has a positive and statistically significant effect on revenue collection efficiency at the Addis Ababa Large Taxpayers Branch Office.

H_{12}: Tax investigation activities have a positive and statistically significant effect on revenue collection efficiency at the Addis Ababa Large Taxpayers Branch Office.

H_{13}: The methods and techniques used in tax audits and investigations have a positive and statistically significant effect on revenue collection efficiency at the Addis Ababa Large Taxpayers Branch Office.

1.6 Significance of the Study

This research is proposed to be highly valuable in theory, practice and policy as it brings an empirical evidence for the impact of tax audit and investigation on revenue collection about efficiency Apart from it empirically reinforced the contribution of tax audit and investigation in revenue collection, more More exactly, for AALTBO. From applied point of view, based on the empirical study it assists tax Administrators and Auditors in their search of the real contribution of different audit and investigation approaches in securing revenue collections in a developing economy by providing evidence on the most successful audit approach in ensuring taxpayer compliance, so that the right technique may be adopted for maximizing revenue collection from the taxpaying population. For policy implications, the study will offer empirical evidence for policy makers in the Ethiopian Ministry of Revenue (Mo R) to improve existing

and develop new tax audit and investigation approaches. To this end, the result will be an important element for evidence-based policy making in evaluating effect of tax audits and investigations on revenue and taxpayer compliance. All in all, the study will serve a sufficiently sound analytical base to the understanding of the contribution of tax audits and investigations to tax administration enhancement, revenue performance and equitable and efficient taxation.

1.7 Scope of the Study

As a result, this Thesis tries to address how tax audits and investigation factors have an effect on revenue collection efficiency of the Addis Ababa Large Taxpayers Branch Office (AALTBO) based on the coverage of a five year period (2019-2024). Focus on this research is In fact restricted to AALTBO territory which offers the most large taxpayers in the nation having most revenue receipts. It concentrates on assessing impact of audit intensity, audit procedures and investigation procedures to the performance of the revenue collection and compliance. So, this paper investigates several relationships to produce empirical evidence that can improve tax enforcement and enhance revenue mobilization for Ethiopia's large taxpayer segment.

1.8 Limitations of the Study

This study is subject to several methodological, data-related, and practical limitations. Methodologically, the reliance on secondary tax audit data may introduce reporting bias, while survey responses from tax officials and large taxpayers may be influenced by subjective perceptions. In addition, access to complete and reliable data is limited, particularly in cases involving concealed tax investigation records, which may affect the accuracy of findings. Another limitation is the difficulty in isolating the specific effects of tax audits and investigations from broader macroeconomic factors that also influence revenue performance. Furthermore, the study is limited in scope, as it focuses only on large taxpayers in Addis Ababa; therefore, the findings may not be generalizable to small and medium taxpayers. Finally, constraints in time and resources limited the depth of qualitative data collection, which may have reduced the richness of contextual insights.

1.9 Organization of the Study

This thesis has five chapters covering introduction, literature review, methodology, findings, and conclusions with recommendations. It progresses from problem identification and theoretical review to data analysis and final policy recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews previous studies and theories related to tax audits, tax investigations, and revenue collection performance. The main purpose of this literature review is to make a clear understanding of how tax enforcement practices influence taxpayer behavior and government revenue collection performance. It also helps to clarify areas that were not fully addressed in earlier studies and explains why the current research is necessary.

The chapter is divided into different sections. The first part explains the concepts and historical development of tax audits and investigations. The second part discusses the main theories that help explain taxpayer compliance behavior. The third section reviews findings from international, African, and Ethiopian studies. Finally, the chapter presents the research gap and the conceptual framework of the study.

Previous studies generally show that tax audits and investigations help improve tax collection and reduce tax evasion. However, their effectiveness is not the same in every country. Developed countries often use advanced digital systems, automated risk analysis, and integrated databases to support tax administration. In Ethiopia, tax administration still faces practical problems such as limited technology, shortage of trained professionals, and weak enforcement capacity. Because of these differences, it is important to examine the Ethiopian situation separately rather than depending completely on findings from developed countries.

2.1.1 Historical Context of Tax Audits and Investigations

The development of tax audits and investigations is closely linked with the growth of modern taxation systems. As governments expanded public services and development activities, they increasingly depended on taxes to finance their expenditures. This created the need for stronger systems that could monitor taxpayer activities and reduce tax evasion.

During the early twentieth century, many countries introduced formal income tax systems and established government institutions responsible for tax administration. One important example was the creation of the Internal Revenue Service (IRS) in the United States, which helped modernize tax enforcement practices. Similar reforms later spread to Europe and other parts of the world as governments realized the importance of organized tax collection systems.

In the beginning, tax audits were mainly manual and focused on reviewing accounting records and financial documents. At that time, tax authorities depended heavily on physical inspections and paper-based reporting systems. However, as businesses expanded and international trade increased, tax systems became more complicated. Manual auditing gradually became less efficient because it was difficult to identify high-risk taxpayers and detect complex forms of tax evasion.

The introduction of computers and digital technology later changed tax administration practices in many countries. Tax authorities started using electronic filing systems, computerized databases, and risk-based audit selection methods. These systems made auditing faster and improved the ability of tax authorities to detect irregularities. Countries that successfully adopted digital systems generally experienced better taxpayer compliance and stronger revenue performance.

Globalization also changed the nature of tax enforcement. As multinational companies expanded their operations across borders, governments faced increasing difficulties controlling profit shifting and cross-border tax evasion using traditional methods. To respond to these problems, international organizations such as the OECD introduced information-sharing systems and international reporting standards to support cooperation among countries.

Today, tax audits and investigations continue to change with technological progress. Many tax administrations now use data analytics, automated risk assessment systems, and digital tracing tools to monitor taxpayer activities. Even so, many developing countries still experience challenges related to weak infrastructure, limited digital systems, and shortages of skilled personnel. In Ethiopia, these problems continue to affect the effectiveness of tax audits and investigations despite ongoing reforms in tax administration.

2.1.2 Tax Audit

A tax audit refers to the examination of taxpayers' financial records, accounting documents, and related evidence to determine whether taxpayers have correctly complied with tax laws and regulations. The main objective of a tax audit is to verify whether the correct amount of tax has been reported and paid to the government (Oyedokun, 2015).

According to Adesina (2005), auditing involves carefully reviewing accounting records to evaluate their accuracy and reliability. In taxation, audits are used not only to identify errors and underreporting but also to encourage taxpayers to submit honest and accurate tax returns.

When taxpayers believe there is a possibility of being audited, they are often more careful in preparing their financial reports (Kirchler, 2007).

Tax audits can take different forms depending on the nature of the case. Desk audits are usually conducted inside the tax office and focus mainly on reviewing submitted tax returns and supporting documents. Taxpayers may sometimes be asked to provide additional explanations or clarification during this process (OECD, 2019).

Field audits are more detailed and are conducted at the taxpayer's business premises. During field audits, auditors examine accounting records, invoices, inventories, and other operational activities directly at the business location. These audits are commonly used when there is suspicion of tax irregularities or underreporting (Palil & Mustapha, 2011).
Another important type is the back-duty audit. This audit is carried out when tax authorities suspect that taxpayers intentionally failed to disclose income or reduced their tax liability improperly. Back-duty audits may involve reassessing previous tax years and recovering unpaid taxes (Biber, 2010).

For audits to produce good results, several conditions are necessary. Auditors should have professional knowledge, practical experience, and ethical standards. They also need to understand the business activities of taxpayers and the economic environment in which businesses operate. In addition, modern auditing increasingly depends on technology and digital information systems. However, in many developing countries including Ethiopia, tax authorities still rely heavily on manual systems, which limits the overall effectiveness of audit activities (Tadesse, 2018).

2.1.3 Tax Investigation Audit

Tax investigation is different from routine tax auditing because it mainly focuses on identifying serious tax fraud, deliberate tax evasion, and hidden financial activities. Investigations are usually started when tax authorities notice suspicious transactions, unusual financial records, or signs of intentional non-compliance (Oyedokun, 2015).

Compared to ordinary audits, tax investigations often involve deeper examination and broader legal authority. Investigators may review financial transactions covering several years and sometimes cooperate with law enforcement institutions or financial intelligence agencies. The purpose is not only to recover unpaid taxes but also to collect evidence that may support legal action against fraudulent taxpayers (OECD, 2021).

Several studies indicate that tax investigations play an important role in discouraging deliberate tax evasion. When taxpayers see that tax authorities actively investigate fraud cases and apply penalties, many become more cautious about violating tax laws. In this way, investigations can improve future taxpayer behavior and strengthen compliance (Dube, 2020).

Even though investigations are important, their effectiveness depends heavily on institutional capacity. Tax investigation units require trained personnel, forensic auditing skills, modern technology, and coordination among institutions. In Ethiopia, investigation activities still face several practical challenges, including limited training opportunities, weak technological systems, and shortage of experienced professionals. These limitations reduce the ability of tax authorities to detect complicated tax fraud cases and recover lost government revenue effectively (Tulu, 2019).

Table 2.1: Distinction Between Tax Audit and Tax Investigation

No.	Tax Audit	Tax Investigation Audit
1	A systematic examination of taxpayers' financial records and supporting documents to verify compliance with tax laws.	A detailed inquiry aimed at gathering evidence of intentional tax evasion, fraud, or revenue loss to the government.
2	Outcomes typically result in additional tax assessments or may trigger further review procedures.	Can be initiated independently and may override routine audits to uncover serious violations.
3	Primarily focuses on identifying areas with potential risks of non-compliance.	Concentrates on suspected fraudulent activities, often guided by intelligence, informants, or financial tracing.
4	Conducted within a defined and relatively limited timeframe.	May extend over a longer period to ensure comprehensive evidence collection.
5	Relies largely on records and information voluntarily provided by the taxpayer.	Utilizes broader sources of evidence, including third-party data, digital forensics, and covert methods.
6	Governed by statutory requirements and forms part of standard tax administration procedures.	May result in legal prosecution and involves wider investigative authority under the law.

7	Usually pre-planned and conducted with prior notification to the taxpayer.	Initiated based on suspicion, anomalies, or red flags, often without prior notice.
8	Generally restricted to specific accounting periods and does not revisit previously audited records.	Has the authority to examine records beyond statutory limits when necessary.
9	Performed by certified auditors or accountants in accordance with professional standards.	Conducted by specialized investigators with legal and enforcement powers.

Source: Adapted from Organisation for Economic Co-operation and Development (2017), International Monetary Fund (2015), World Bank (2019), and Ethiopian Ministry of Revenue directives.

2.2 Theoretical Foundation of Tax Audits and Tax Investigations

The relationship between tax audits, tax investigations, and revenue collection can be explained using different theories from economics, behavioral science, and institutional studies. These theories help explain why taxpayers comply with tax laws or decide to evade taxes. They also show that taxpayer behavior is influenced not only by financial considerations but also by social attitudes, trust in government institutions, and the effectiveness of tax administration systems.

One of the most widely used theories in tax compliance studies is Deterrence Theory developed by Allingham and Sandmo (1972). The theory assumes that taxpayers make rational decisions by comparing the possible benefits of tax evasion with the risks of being detected and punished. According to this theory, tax audits and investigations increase the likelihood of detecting non-compliance, while penalties increase the cost of tax evasion. As a result, taxpayers may prefer to comply in order to avoid legal and financial sanctions. Previous studies in different countries have shown that stronger audit systems and visible enforcement activities often reduce tax evasion and improve revenue collection (Slemrod et al., 2019). However, later researchers argue that deterrence alone cannot fully explain taxpayer behavior, especially in developing countries where institutional trust and enforcement capacity remain weak.

Fiscal Exchange Theory proposed by Levi (1988) provides another explanation for taxpayer compliance. The theory suggests that taxpayers are more willing to pay taxes when they believe

the government uses public revenue properly to provide public services such as roads, education, healthcare, and infrastructure. This means that compliance depends not only on enforcement activities but also on the relationship between taxpayers and government institutions. When tax administration is transparent and fair, taxpayers are more likely to cooperate voluntarily.

Behavioral perspectives also help explain compliance behavior. The Slippery Slope Framework introduced by Kirchler (2007) argues that tax compliance depends on two important factors: the power of tax authorities and the trust taxpayers place in those authorities. Strong audits and investigations may improve compliance by increasing fear of detection. However, excessive use of coercive enforcement may weaken taxpayer trust and reduce voluntary compliance over time. For this reason, sustainable tax compliance requires balancing enforcement activities with trust-building efforts.

Similarly, Prospect Theory developed by Kahneman and Tversky (1979) explains that people often react more strongly to possible losses than to gains. In taxation, taxpayers may become more compliant when they fear penalties, legal punishment, or damage to their reputation resulting from tax investigations and audits. This theory highlights the importance of visible and credible enforcement systems in influencing taxpayer behavior.

The Theory of Planned Behavior proposed by Ajzen (1991) also contributes to understanding tax compliance. According to this theory, human behavior is influenced by attitudes, social expectations, and perceived control over actions. In the context of taxation, taxpayers are more likely to comply when they believe the tax system is fair, when society expects lawful behavior, and when they think tax evasion can easily be detected and punished. Studies indicate that these behavioral and social factors are especially important in countries where enforcement systems are still developing.

Institutional theories also provide useful explanations regarding tax enforcement practices. Agency Theory developed by Jensen and Meckling (1976) explains that taxpayers and governments may have conflicting interests. Taxpayers may try to reduce tax liabilities by underreporting income, while governments seek to maximize public revenue. In this situation, tax audits and investigations function as monitoring tools that help reduce information gaps and improve accurate reporting. The effectiveness of these enforcement activities depends heavily on the consistency and capability of tax authorities.

Public Choice Theory introduced by Buchanan and Tullock (1962) also helps explain challenges within tax administration systems. The theory argues that public officials may sometimes act in their own interests rather than focusing fully on public objectives. This perspective is relevant in developing countries where institutional weaknesses, governance problems, and administrative inefficiencies may affect the fairness and effectiveness of tax enforcement activities.

Overall, these theories show that tax compliance is influenced by a combination of enforcement mechanisms, taxpayer attitudes, institutional trust, and administrative effectiveness. Therefore, understanding the interaction of these factors is important for evaluating how tax audits and investigations contribute to improving revenue collection efficiency.

2.2.1 Adopted Theoretical Framework

Based on the theories discussed above, this study applies an integrated theoretical framework combining Deterrence Theory, the Slippery Slope Framework, and the Theory of Planned Behavior to explain the relationship between tax audits, tax investigations, and revenue collection efficiency.

Among these theories, Deterrence Theory serves as the main foundation of the study because it directly explains how enforcement measures influence taxpayer behavior. According to the theory, activities such as frequent audits, broader audit coverage, investigations, and penalties increase the probability of detecting tax evasion and raise the cost of non-compliance. In this regard, the study assumes that stronger audit and investigation practices improve revenue performance by discouraging taxpayers from engaging in tax evasion.

However, the study also recognizes that enforcement measures alone may not guarantee long-term compliance. For this reason, the Slippery Slope Framework is included to explain the importance of trust between taxpayers and tax authorities. In countries such as Ethiopia, where administrative systems and institutional trust are still developing, taxpayer confidence in the fairness and transparency of tax administration significantly affects compliance behavior. The framework therefore suggests that effective tax administration requires both strong enforcement and efforts to build public trust.

The Theory of Planned Behavior is also incorporated because taxpayer decisions are influenced not only by enforcement pressure but also by social expectations, attitudes, and perceptions of

fairness. Taxpayers are generally more willing to comply when they believe the tax system is fair, when society discourages tax evasion, and when the risk of detection is high.

The integration of these theories provides a broader understanding of how tax audits and investigations influence revenue performance. Audit frequency and wider audit coverage increase the perceived risk of detection, while investigations and penalties strengthen enforcement against deliberate tax evasion. At the same time, taxpayer trust and perceptions of fairness contribute to sustaining voluntary compliance in the long run.

This framework is closely linked to the objectives and hypotheses of the study because it explains the relationship between audit frequency, audit techniques, investigation practices, enforcement intensity, and revenue collection efficiency within the Ethiopian tax administration context.

2.2.2 Summary of Theoretical Framework

The theoretical foundation of this study shows that taxpayer compliance is influenced by several interconnected factors, including enforcement activities, taxpayer attitudes, institutional trust, and administrative effectiveness. Deterrence Theory explains that taxpayers become less likely to evade taxes when audits, investigations, and penalties increase the probability of detection and punishment.

Behavioral theories emphasize that fairness, social influence, and trust in tax authorities are also important in encouraging voluntary compliance. Institutional theories further indicate that effective tax enforcement depends on governance quality, administrative capability, and the credibility of tax institutions.

Therefore, improving revenue collection efficiency requires not only strong enforcement measures but also transparent and trustworthy tax administration systems. By combining economic, behavioral, and institutional perspectives, this study provides a broader basis for examining how tax audits and investigations influence revenue performance in Ethiopia.

2.3 Empirical Review of the Impact of Tax Audits & Investigations

An empirical review is useful for understanding how tax audits and investigations affect revenue collection in different countries and institutional settings. It helps summarize findings from previous studies, research methods applied by earlier researchers, and the conclusions reached regarding tax enforcement practices. This section reviews studies from international,

African, East African, and Ethiopian contexts to provide a broader understanding of the relationship between tax audits, investigations, and revenue performance. The review also identifies similarities and differences among previous findings, which helps create a stronger foundation for the current study.

2.3.1 Empirical Evidence on Tax Audits and Revenue Collection

Impact of Audit Frequency on Tax Compliance

Several studies conducted in different countries show that increasing audit frequency helps improve taxpayer compliance and government revenue collection. Slemrod et al. (2019), using data from the Internal Revenue Service (IRS) covering the period from 2000 to 2018, found that a one percent increase in audit probability led to approximately a 1.5% to 2% increase in reported taxable income. The study also observed that corporations and self-employed taxpayers responded more strongly to audit activities than salaried employees because they have greater flexibility in reporting income. This finding suggests that focusing audit activities on high-risk taxpayers can improve compliance and strengthen revenue collection.

Similarly, Kleven et al. (2011) conducted a randomized audit experiment in Denmark involving nearly 40,000 taxpayers to examine the long-term effect of audits on taxpayer behavior. The study found that taxpayers who experienced audits became less likely to underreport income in subsequent years. The effect remained visible several years after the audit, indicating that audits create a lasting perception of enforcement risk. This shows that tax audits not only generate immediate revenue but also encourage long-term compliance behavior.

Evidence from African countries also supports the positive relationship between audit activities and tax compliance. A panel study conducted by the Kenya Revenue Authority (KRA, 2022), involving around 5,000 firms over a ten-year period, found that increased audit probability contributed to an eight percent rise in corporate tax payments. The study further showed that firms previously exposed to audits demonstrated improved voluntary compliance. This indicates that audit experience may positively influence future taxpayer behavior.

Although these studies generally support the importance of frequent audits, the level of effectiveness often differs across countries. Developed countries tend to achieve better results because they use advanced digital systems and risk-based audit selection methods. In many

developing countries, including Ethiopia, limited technology and weak administrative systems may reduce the overall impact of audit activities.

Effect of Audit Coverage on Revenue Performance

Previous research also indicates that expanding audit coverage contributes to improved revenue performance by reducing opportunities for tax evasion and increasing taxpayer accountability. According to the Organisation for Economic Co-operation and Development (OECD, 2019), countries that adopted risk-based audit selection systems recorded an average increase of about 25% in total tax revenue. The report further explained that data-driven audit systems improved administrative efficiency by approximately 40%, allowing tax authorities to identify non-compliance more effectively while reducing operational costs.

In Ethiopia, reports from the Ministry of Revenue indicate that increasing audit coverage from 10% to 15% between 2020 and 2023 was associated with nearly a 12% increase in tax revenue, estimated at around ETB 10 billion. During the 2023/2024 fiscal year, total government tax revenue exceeded ETB 512 billion, showing improvements in domestic revenue mobilization efforts.

However, establishing a direct causal relationship between audit coverage and revenue growth remains difficult because detailed disaggregated data are limited. In addition, many Ethiopian audit activities still rely heavily on manual systems and limited technological support compared to developed countries. This suggests that expanding audit coverage alone may not be sufficient unless supported by improvements in technology, staffing, and administrative efficiency.

Table 2.2: Relationship Between Audit Types and Revenue Impact

Audit Type	Revenue Impact (%)	Key Findings
Desk Audits	5% – 10%	Limited impact; primarily identifies clerical and minor reporting errors.
Field Audits	10% – 20%	Moderately effective in detecting deliberate underreporting of income.
Risk-Based Audits	25% – 30%	Highly efficient in identifying high-risk taxpayers and recovering lost revenue.

Comprehensive Audits	30% – 40%	Strongest impact; significantly improves corporate tax compliance and revenue.

Source: Organization for Economic Co-operation and Development (OECD, 2021); Ministry of Revenue (MoR, 2023).

The Role of Tax Investigations in Detecting Fraud

Tax investigations play an important role in identifying large-scale tax evasion and detecting taxpayers involved in fraudulent activities. In many cases, investigations begin when tax authorities identify suspicious financial transactions, hidden income, or intentional tax irregularities. Compared to routine audits, tax investigations are usually more detailed and focus mainly on high-risk taxpayers.

Previous studies indicate that investigations contribute positively to improving compliance and strengthening government revenue collection. For example, Dube (2020), in a study conducted in South Africa, found that major corporate tax investigations resulted in increased voluntary tax disclosures and higher reported taxable income. The findings showed that stronger enforcement measures encouraged taxpayers to correct inaccurate declarations and comply more carefully with tax obligations.

Similarly, the Federal Inland Revenue Service (FIRS, 2021) in Nigeria reported that investigations into corporate fraud cases led to the recovery of substantial amounts of unpaid taxes and helped reduce tax evasion within affected sectors. At the international level, the European Commission (2021) also explained that countries focusing on targeted fraud investigations achieved better revenue recovery outcomes than countries with weaker enforcement systems, especially in sectors vulnerable to tax evasion such as retail, construction, and hospitality.

These findings demonstrate that tax investigations are useful not only for identifying hidden tax liabilities but also for influencing future taxpayer behavior. Nevertheless, effective investigation activities require skilled personnel, strong institutional coordination, and modern technological systems. In developing countries such as Ethiopia, shortages of trained investigators and weak digital infrastructure continue to reduce the effectiveness of tax investigation practices.

The Impact of Criminal Prosecutions on Revenue Collection

Criminal prosecution is considered one of the strongest enforcement measures used to discourage deliberate tax fraud and improve taxpayer compliance. The possibility of facing legal punishment, including fines and imprisonment, often creates pressure on taxpayers to comply with tax laws and avoid fraudulent activities.

Evidence from the United Kingdom supports this argument. According to HM Revenue and Customs (HMRC, 2022), the increase in tax fraud prosecutions between 2019 and 2022 was associated with improvements in corporate tax payments in targeted sectors. The report also noted that many companies under investigation preferred to settle tax liabilities before court proceedings, reflecting the deterrent effect of legal enforcement.

A similar situation was observed in Ghana, where stronger criminal investigations and enforcement measures contributed to improvements in Value Added Tax (VAT) collection and compliance, especially within the informal sector (GRA, 2022). These findings suggest that criminal prosecution helps recover unpaid taxes while also encouraging voluntary compliance by demonstrating the seriousness of tax enforcement activities.

However, some researchers argue that excessive reliance on punitive enforcement may weaken taxpayer trust if taxpayers perceive the system as unfair or politically influenced. Therefore, criminal prosecution should be applied carefully and consistently to maintain both deterrence and public confidence in the tax administration system.

Recovering Lost Revenue through Audits and Investigations

Several empirical studies show that tax audits and investigations contribute significantly to recovering lost government revenue and improving taxpayer compliance. According to the Organisation for Economic Co-operation and Development (OECD, 2022), enforcement activities such as audits and targeted investigations increase additional tax assessments by identifying underreported income and undisclosed tax liabilities. The report further noted that fraud-related investigations are particularly effective in recovering unpaid taxes linked to complex evasion schemes.

In Ethiopia, the Ministry of Revenue reported that tax audit activities generated additional tax assessments amounting to approximately ETB 10 billion. This represented an important

contribution to annual government revenue and highlighted the importance of strengthening audit and investigation practices.

Although these results show positive contributions, many developing countries still face practical challenges in recovering lost revenue. Weak data management systems, shortage of skilled auditors, and limited technological support often reduce the efficiency of enforcement activities. In Ethiopia, these institutional limitations continue to affect the effectiveness of revenue recovery efforts.

Impact of Penalties on Taxpayer Behavior

Penalties are another important component of tax enforcement because they influence taxpayer behavior and discourage non-compliance. Studies indicate that when penalties are applied consistently and fairly, taxpayers become less willing to engage in tax evasion.

Feld and Frey (2019), in their study conducted in Germany, found that stricter penalties were associated with lower levels of future tax evasion. However, the researchers also explained that excessively harsh or unfair penalties may reduce taxpayer trust and create negative attitudes toward the tax system. This suggests that effective penalties should balance deterrence with fairness and transparency.

Likewise, research conducted in Brazil showed that stronger penalty systems contributed to a gradual decline in corporate tax evasion over time (Brazil Ministry of Finance, 2021). These findings indicate that well-structured penalty systems can improve taxpayer compliance while maintaining confidence in the fairness of tax administration.

In Ethiopia, however, inconsistent application of penalties and limited enforcement capacity may reduce the overall effectiveness of penalty systems. As a result, some taxpayers may continue engaging in non-compliance if they believe enforcement activities are weak or irregular.

2.3.2 Empirical Studies in Ethiopia

Empirical studies conducted in Ethiopia generally show that tax audits contribute positively to government revenue collection and taxpayer compliance. For example, a study by Tadesse (2018) conducted in Addis Ababa and Jimma found that frequent audit activities helped reduce tax evasion and improve government revenue performance. The study explained that regular

audits encourage taxpayers to report income more accurately because they become more aware of the possibility of detection. This finding indicates that targeted audit practices can support domestic revenue mobilization efforts.

Even though tax audits have shown positive contributions, their effectiveness in Ethiopia is still affected by several institutional and administrative problems. Dagne (2022) identified major challenges such as shortage of audit resources, weak enforcement capacity, lack of technological support, and resistance from some taxpayers. According to the study, these problems reduce the ability of tax authorities to conduct audits efficiently and consistently. The findings therefore suggest that improving institutional capacity and strengthening administrative systems are important for enhancing audit effectiveness.

Taxpayer perception is another factor that influences compliance behavior in Ethiopia. Tulu (2019) found that taxpayers are more willing to comply when audit activities are carried out fairly, transparently, and consistently. The study further explained that trust in tax authorities and confidence in the fairness of the tax system play an important role in encouraging voluntary compliance. This means that taxpayers may cooperate more willingly when they believe tax enforcement practices are impartial and professionally implemented.

Methodologically, many Ethiopian studies mainly apply time-series analysis to evaluate changes in revenue collection before and after audit interventions. Logistic regression models are also commonly used to assess compliance behavior among audited and non-audited taxpayers. Although these approaches provide useful evidence, many studies still face limitations related to data availability and methodological scope. Compared to studies conducted in developed countries, empirical research in Ethiopia often relies on smaller datasets and less advanced econometric techniques.

2.3.3 Comparative Insights: Contrasts and Convergences

Comparative evidence from different countries shows that tax audit practices and compliance outcomes vary depending on institutional capacity, technological development, and enforcement systems.

In many OECD countries, tax administrations use advanced digital technologies, automated systems, and risk-based audit models to improve the efficiency of tax enforcement activities (OECD, 2017). These systems help tax authorities identify suspicious transactions more

accurately and increase the probability of detecting non-compliance. As a result, taxpayers in developed countries often perceive a stronger risk of detection, which encourages higher levels of compliance.

In contrast, many African countries still depend largely on manual audit systems because of limited technological infrastructure and shortage of financial resources (Bird & Zolt, 2008; Baer, 2002). These limitations reduce the efficiency of tax enforcement and make it more difficult to detect complex forms of tax evasion. However, some East African countries have recently started introducing digital technologies and electronic tax systems as part of broader tax modernization reforms (World Bank, 2016).

Ethiopia has also introduced some tax modernization initiatives, but the country still faces institutional and technological challenges that affect the effectiveness of audit systems (Teferi & Gebretsadik, 2020). Problems such as limited digital infrastructure, shortage of skilled personnel, and inconsistent enforcement practices continue to reduce the overall efficiency of tax administration.

Compliance outcomes also differ across countries. In developed countries, taxpayers generally respond more strongly to audits because enforcement systems are more organized and technologically advanced. In many African countries, however, the effectiveness of audits is often weakened by administrative inefficiencies and limited follow-up mechanisms (Moore, 2020). Similarly, in Ethiopia, audits positively influence compliance behavior, but their impact is still constrained by institutional weaknesses, shortage of experienced auditors, and low taxpayer trust.

Differences can also be observed in research methodologies. Studies conducted in OECD countries frequently apply advanced econometric methods such as Difference-in-Differences (DiD), Regression Discontinuity Design (RDD), and Structural Equation Modeling (SEM). In many African countries, researchers more commonly use panel regression and descriptive analysis. Ethiopian studies mainly rely on time-series analysis and logistic regression because of limitations related to data quality, research funding, and technical capacity.

2.3.4 Conclusion and Research Implications

The empirical evidence reviewed in this chapter shows that tax audits and investigations both contribute to improving government revenue collection, although they operate in different

ways. Tax audits mainly function as preventive mechanisms because they increase the probability of detection and encourage taxpayers to comply voluntarily. Tax investigations, on the other hand, are more corrective in nature since they focus on identifying hidden income, detecting fraud, and recovering unpaid taxes resulting from deliberate tax evasion.

Recent studies also indicate that modern tax administrations increasingly use risk-based audit systems, electronic monitoring technologies, and data-driven enforcement methods to strengthen compliance and improve administrative efficiency. Legal measures such as penalties and criminal prosecutions further reinforce deterrence by increasing the financial and legal consequences of non-compliance.

However, many studies emphasize that sustainable improvement in revenue performance cannot depend only on enforcement measures. Long-term taxpayer compliance also requires fairness, transparency, taxpayer education, and trust in government institutions. Excessive reliance on coercive enforcement may reduce public confidence if taxpayers perceive the system as unfair or inconsistent.

Therefore, policymakers need to adopt balanced tax administration strategies that combine effective enforcement mechanisms with efforts aimed at improving taxpayer awareness, institutional trust, and service delivery. This is particularly important in developing countries such as Ethiopia, where administrative systems and taxpayer confidence are still evolving.

2.4 Research Gaps Identified from Empirical Review

Although many studies have examined the relationship between tax audits, investigations, and revenue collection, several important research gaps still exist, particularly in developing countries such as Ethiopia.

Most previous empirical studies were conducted in developed countries where tax systems are highly digitalized and enforcement institutions are relatively strong. Because of this, the findings from those countries may not fully represent the realities of Ethiopia, where tax administration still faces institutional weaknesses, technological limitations, and shortage of administrative resources.

Another important limitation relates to research methodology. Many international studies apply advanced econometric techniques such as Difference-in-Differences (DiD) and Regression

Discontinuity Design (RDD) to establish causal relationships between tax enforcement and compliance behavior. In Ethiopia, however, many studies mainly use descriptive analysis, time-series methods, and basic regression models due to limited access to detailed data and technical capacity. As a result, the strength of empirical evidence often remains limited.

Previous studies also tend to examine tax audit variables separately rather than analyzing audit frequency, audit techniques, investigations, and penalties within a single integrated framework. In addition, sector-specific studies are still limited, especially regarding small businesses and the informal sector, despite their growing importance in the Ethiopian economy.

Behavioral factors such as taxpayer awareness, trust in tax authorities, and perceptions of fairness have also received relatively limited empirical attention in Ethiopia. Yet these factors may significantly influence voluntary compliance behavior and taxpayer attitudes toward enforcement activities.

Another challenge is the shortage of detailed audit and investigation data available for researchers. Limited access to reliable administrative data makes it difficult to examine the direct relationship between specific audit practices and revenue performance. Therefore, additional context-based research is needed to better understand how tax audits and investigations contribute to revenue collection efficiency in Ethiopia.

2.5 Conceptual Framework

This study is guided by a conceptual framework that explains the relationship between tax audit and investigation practices and revenue collection efficiency at the Addis Ababa Large Taxpayers Branch Office. The framework considers tax audit frequency, tax investigation activities, and audit methods and techniques as key factors influencing revenue performance.

It also acknowledges contextual factors such as taxpayer awareness, perceived fairness, and institutional capacity, which may affect these relationships. The framework assumes that effective audit and investigation practices improve taxpayer compliance, reduce tax evasion, and enhance revenue collection efficiency.

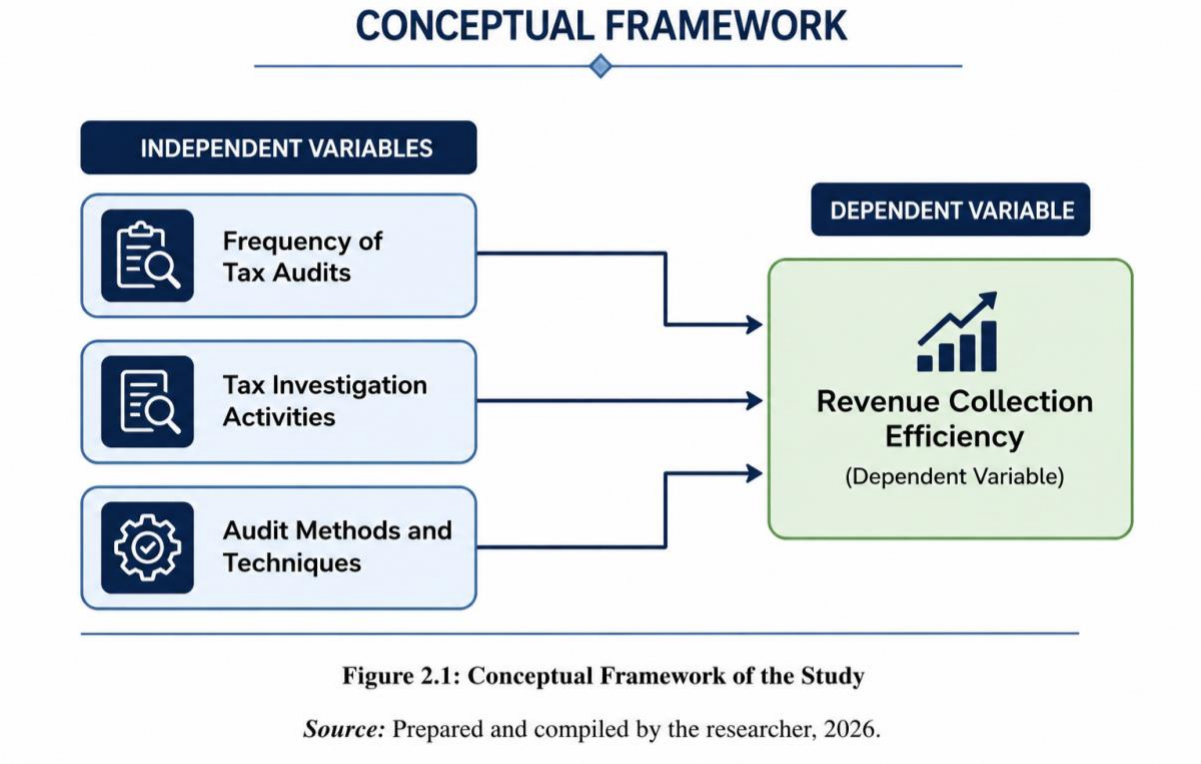


Figure 2.1: Conceptual Framework of the Study

Source: Prepared and compiled by the researcher, 2026.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Research Design

This research adopts a **mixed-methods research design**, combining both quantitative and qualitative approaches to examine the impact of tax audits and investigations on revenue performance at the Addis Ababa Large Taxpayers Branch Office (AALTBO). The quantitative component uses statistical methods to analyze the relationship between audit practices and revenue outcomes, while the qualitative component explores the experiences, administrative challenges, and institutional perspectives of key stakeholders.

The research is both **descriptive and explanatory**. The descriptive research section identifies patterns in audit coverage, frequency, and revenue trends over the period 2019–2024. The explanatory research section investigates causal links between tax enforcement mechanisms and taxpayer compliance behavior. Combining these approaches provides a richer understanding of tax enforcement dynamics and strengthens the empirical rigor of the study.

3.2 Research Approach

A deductive research approach is applied, starting from established theoretical frameworks Deterrence Theory, Agency Theory, and the Slippery Slope Framework to develop hypotheses that are empirically tested. This ensures alignment with theory while guiding the research systematically.

Additionally, triangulation is employed by integrating statistical analysis with qualitative thematic interpretation. This enhances the credibility of findings, reduces bias, and provides a more comprehensive understanding of the research problem.

3.3 Population and Sampling Techniques

3.3.1 Target Population

The research focuses on three key groups:

1. Tax auditors and investigators working at AALTBO.
2. Managers and technical staff at the Addis Ababa City Administration Inland Revenue Bureau (AALTBO).
3. Large taxpayer organizations that were audited or investigated between 2019 and 2024.

This stratification ensures the research captures both the enforcement perspective and taxpayer behavior.

3.3.2 Sampling Techniques

Stratified Random Sampling was used to select 159 taxpayers from a population of 723 large taxpayers. The stratification was based on industry type (e.g., manufacturing, finance, real estate, import-export) to ensure proportional representation.

Purposive sampling was used to select 32 tax auditors and investigators based on their specialized expertise and direct involvement in tax enforcement. These participants were considered appropriate for providing relevant information through interviews, which were conducted to obtain qualitative insights for the study.

3.3.3 Sample Size Determination and Margin of Error

The choice of a 7% margin of error is justified both methodologically and practically. According to sampling literature (Krejcie & Morgan, 1970; Cochran, 1977), margins of error between 5% and 10% are commonly applied in social science research, particularly for finite populations. Therefore, 7% is acceptable and methodologically sound.

A 5% margin would require a larger sample size, increasing cost and time. The 7% margin balances accuracy and feasibility. It is sufficient to ensure representativeness of taxpayer behavior, audit outcomes, and compliance levels. Similar studies in tax administration also adopt 5–10%, making 7% consistent with academic practice.

The sample size for this study was calculated using Yamane's formula (1967) for finite populations, which provides a statistically reliable method for determining representative samples. The formula is expressed as:

Yamane's formula: $n = N / [1 + N \times e^2]$

Where:

- **n**= Sample size
- **N**= total population size
- **e** = level of precision (margin of error)

For this study:

- N = 723 (total large taxpayers)
- e = 0.07 (margin of error)

Step-by-step calculation:

1. Square the margin of error:
   - $e^2 = 0.07 \times 0.07 = 0.0049$
2. Multiply by the population size:
   - $N \times e^2 = 723 \times 0.0049 \approx 3.5427$
3. Add 1 to the result:
   - $1 + N \times e^2 = 1 + 3.5427 \approx 4.5427$
4. Divide the population by this sum to get the sample size:
   - $n = 723 \div 4.5427 \approx$ **159**

Therefore, the sample size for large taxpayers is **159.**

For tax auditors and investigators, a purposive sampling technique was applied due to their specialized expertise and direct involvement in enforcement processes. A total of 32 participants were selected because they represent key informants within the organization who are directly engaged in audit and investigation activities.

The sample size of 32 was determined based on the principle of data saturation, where additional respondents were unlikely to provide new or significantly different information. In qualitative research, saturation rather than large numbers is used to ensure depth and richness of data. By combining purposive sampling for key informants with the quantitative sample of taxpayers, the study achieves a balanced and methodologically rigorous design, ensuring reliable and comprehensive findings on the impact of tax audits and investigations on revenue performance.

3.4 Data Sources and Collection Methods

Both primary and secondary data were used.Primary data were collected using structured questionnaires adapted from established tax compliance frameworks (including OECD-based instruments). These were administered to taxpayers. Semi-structured interviews were conducted with tax auditors and experts to obtain qualitative insights.Instruments were pre-tested and refined based on expert feedback.Secondary data were collected from audit reports, revenue records, and investigation files (2019–2023) from AALTBO and the Ministry of Revenue. Legal documents such as Proclamation No. 983/2016 and No. 979/2016 were also reviewed.

3.5 Data Analysis Techniques

Quantitative data were analyzed using SPSS and Stata. The multiple linear regression model used is:

$$Y = \beta0 + \beta1X1 + \beta2X2 + \beta3X3 + \varepsilon$$

Where:

Y = Revenue collection efficiency

X1 = Tax audit frequency

X2 = Tax investigation activities

X3 = Methods and techniques

β0 = Constant

β1–β3 = Coefficients

ε = Error term

Descriptive and inferential statistics were used, including regression, correlation, VIF, heteroskedasticity tests, and R^2.Qualitative data were analyzed using thematic analysis with NVivo/MAXQDA.

3.6 Validity of the Research

To ensure validity and reliability, multiple strategies were applied. Construct validity was maintained by having the research instruments reviewed by academic experts and Ministry of Revenue practitioners. Reliability was ensured through pilot testing and calculating Cronbach's Alpha, with a target $\alpha > 0.70$ to confirm internal consistency. Furthermore, data triangulation across interviews, questionnaires, and secondary sources enhanced the credibility of the findings by cross-verifying information from multiple perspectives.

3.7 Ethical Considerations

Ethical principles were strictly adhered to throughout the study. All participants provided informed consent after being briefed on the study's purpose, and confidentiality was ensured through anonymity and secure storage of data. Participation was entirely voluntary, allowing respondents to withdraw at any stage without penalty. Additionally, ethical clearance was obtained from Addis Ababa University's Ethics Review Committee before the commencement of data collection, ensuring compliance with institutional and professional research standards.

CHAPTER FOUR
DATA PRESENTATION, ANALYSIS, AND DISCUSSION

4.1 Introduction

Chapter Four contains the presentation, analysis and interpretation of the empirical data collected for purposes of evaluating tax audits and investigation impact on revenue performance at AALTBO. The data presented and analyzed in this chapter is based on two sources: (a) questionnaires from taxpayers; and (b) questionnaires from tax auditors, investigation officers and administrators in AALTBO. The sources were combined to provide a comprehensive view from both demand (taxpayer compliance) and supply (audit and investigation performance) sides. The taxpayers questionnaire (n = 159) is centered on taxpayer compliance behavior, perceptions of fairness of audits, deterrence effects and the impact of audits on filing accurate returns and paying taxes on time. The auditors/administrator questionnaire (n = 32) targeted issues relating to audit planning, quality of audit performance, technological capability, consistency of penalty administration and identified operational problems. Background information was obtained from both questionnaires in order to provide context to the participants' responses. This information includes factors such as industry classification, business size and number of years in operation for taxpayers. For tax administrators background information such as rank, number of years worked and department served were obtained to help identify how experience and position within the institution as well as exposure to the auditing process can affect perception and behavior.

After this demographic information, the results are broken down into four thematic areas that follow from our theoretical framework and research questions: Audit Planning/ and Risk-Based Audit Selection, Audit Quality, Technology and Fieldwork, Penalty Follow-up/Deterrence Collections Performance/Liquidity Response In terms of taxpayers, we investigate impact on their record keeping, willingness to disclose, accuracy in filing and making timely payments. Among auditors and administrators, we qualitatively identify areas that need improvement including low audit rates, lack of trained resources, technology limitations, penalty follow-up and obstacles with current law limiting effectiveness.

penalty enforcement and legal limitations that impede audit enforcement. Quantitative data are analyzed by using descriptive statistics such as frequencies, percentages, tables, and charts. The data obtained were also subjected to thematic analysis in order to complement the statistical results with explanations. By merging both groups of respondents, commonalities and

differences were established. Common trends were observed with respect to issues such as fair treatment during audits and general deterrence. Differences in perceptions were observed with regards to penalty enforcement and reasons for non-compliance. The results of this study, as seen in this chapter, served as basis for discussion in Chapter Five. The research questions were answered, null hypotheses were supported or rejected and recommendations were provided based on the findings of this study.

4.2 Response Rate and Instrument Return Summary

This section summarizes the distribution and retrieval of research instruments and evaluates the completeness of the collected data. This assessment establishes the reliability and robustness of the dataset for subsequent analysis.

4.2.1 Questionnaire Distribution and Response Rates

Table 4.1 Questionnaire Distribution and Response Summary

Respondent Category	Distributed	Returned	Valid	Response Rate (%)
Large Taxpayers	159	153	153	96.20
Auditors/Administrators	32	32	32	100
Total	**191**	**185**	**185**	**96.90**

Note: *Data collected by the researcher through questionnaires administered to large taxpayers and auditors/administrators at AALTBO (2024).*

Two sets of questionnaires were administered to two respondent groups: large taxpayers and tax auditors/administrators at the Addis Ababa Large Taxpayers Branch Office (AALTBO).

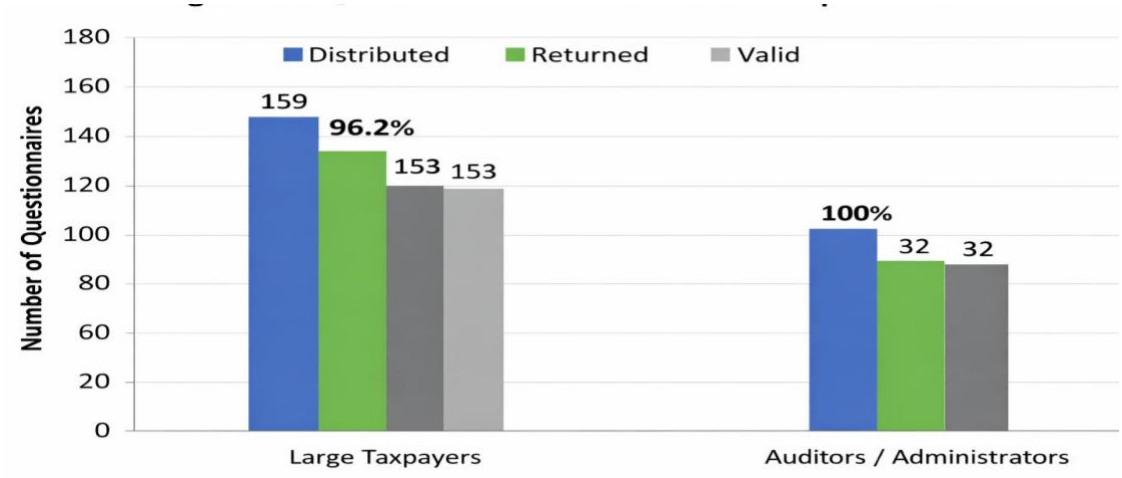


Figure 4.1 : Questionnaire distribution & Response Rate

Source: Prepared and compiled by the researcher, 2026.

The researcher's data collection efforts were successful, as indicated by the low number of invalid responses and the high level of engagement from all respondents. The results provide an accurate reflection of both respondent groups participating in the study and demonstrate their willingness to provide valid responses. The study is therefore on solid footing with its findings.

Table 4.1 shows that of the 159 questionnaires sent to large taxpayers, 153 were returned with valid answers giving a total response rate from this group alone of 96.2%. In addition, all 32 questionnaires sent to auditors/administrators were returned with valid answers providing a total response rate from that group alone of 100%.

Overall, the overall response rates among both groups indicate a high level of participation/engagement of respondents to this survey; therefore, this response level demonstrates good management of the questionnaire distribution/collection processes.

Thus, because there were no invalid responses, the overall response rate across both groups was very high, demonstrating high credibility/representativeness of the overall dataset generated for analysis thus enhancing the reliability and representativeness of this study's analysis and conclusions.

4.2.2 Data Screening and Completeness Evaluation

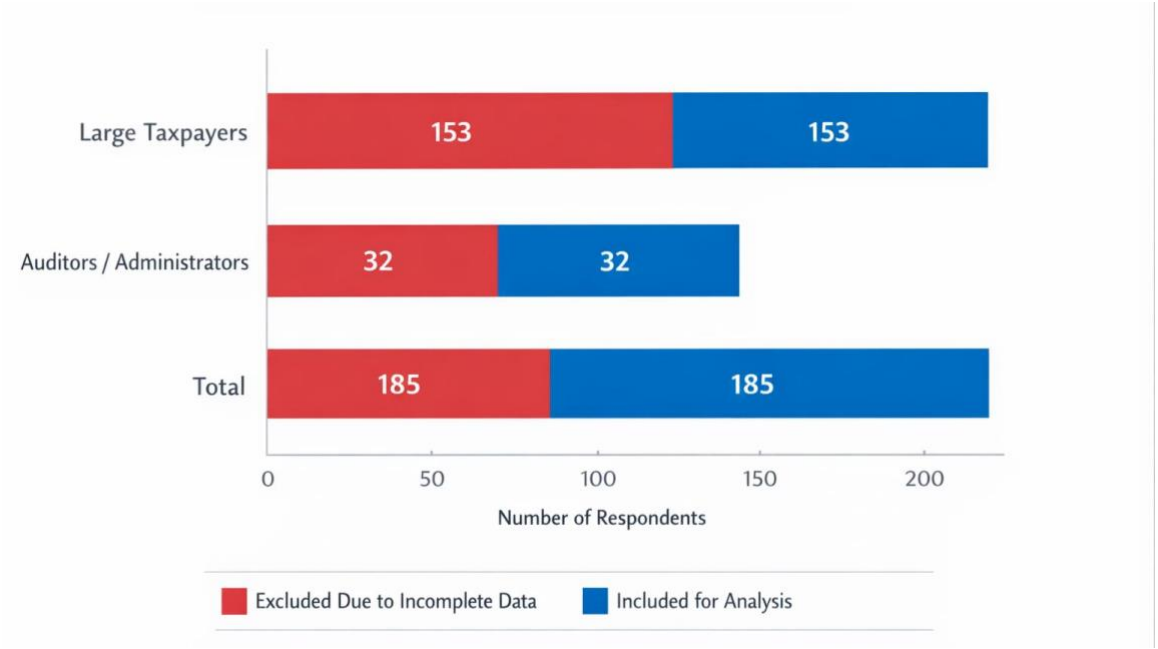
All returned questionnaires were carefully examined to ensure accuracy, completeness, and logical consistency.

Table 4.2: Data Screening and Completeness Evaluation

Respondent Category	Questionnaires Returned	Excluded Due to Incomplete Data	Included for Analysis
Large Taxpayers	153	0	153
Auditors/Administrators	32	0	32
Total	**185**	**0**	**185**

Note. *All returned questionnaires were carefully reviewed to ensure accuracy, completeness, and logical consistency. Minor missing responses were handled using variable-specific omission rather than data imputation to preserve analytical integrity.*

Figure 4.2 : Data Screening and Completeness Evaluation



Source: Prepared and compiled by the researcher, 2026.

The review of all 185 returned questionnaires (153 taxpayers + 32 auditors/administrators), as shown in Table 4.2 and Figure 4.2, established the following:

- All questionnaires were received and were accurate, complete, and consistent in their completion.
- No questionnaires provided missing or otherwise inconsistent data, resulting in 185 usable responses

Figure 4.2 illustrates the completeness of the data and the contribution of each completed questionnaire to the analysis. This data has a high level of integrity and provides a foundation

for this study's findings and conclusions to be reliable and valid. A reduction in bias from missing or inconsistent data supports strong and reliable conclusions about the effects on revenue performance due to tax audits and investigations.

4.2.3 Implications for Analytical Validity

The very high response rate and the completeness of the returned questionnaires highlight the strong representativeness of both respondent groups. This increased participation provides a solid foundation, improving the generalizability of the study's findings across the population of the Addis Ababa Large Taxpayers Branch Office (AALTBO). Additionally, the study benefits from the insights gained from two complementary sources: taxpayers, who provide feedback on compliance behavior and perceptions, and auditors/administrators, who share their operational and enforcement viewpoints. This mix of methods strengthens the dataset, creating a well-rounded and credible evidence base. By capturing these different but related perspectives, the analysis gains depth and rigor. This work reinforces the validity of the results and builds greater confidence in the policy recommendations that follow.

4.3 Respondents' Profile / Demographic Characteristics

Here is a summary of the demographics of the study participants based on data from both instruments:

i. Taxpayer Questionnaire

ii. Auditors' and Administrators' Questionnaire/Interview Guide

A summary of the demographics of the respondents demonstrates that those respondent providing data have sufficient knowledge, experience and relevance to the study topics (Tax Audits, Tax Investigations and Revenue Performance). The establishment of the expertise and credibility of the respondents provides validity and reliability to the research findings.

4.3.1 Gender Distribution of Respondents

The gender distribution of the study participants provides context to understanding the demographics of the study participants. The complete perspective of both Large Taxpayers and Auditors/Administrators is provided in Table 4.3.

Table 4.3 : Gender Distribution of Respondents

Gender	Taxpayer Respondents (n=153)	Percent (%)	Auditors/Administrators (n=32)	Percent (%)
Male	102	66.67	17	53.13
Female	51	33.33	15	46.88
Prefer not to say	0	0	0	0
Total	**153**	**100**	**32**	**100**

Note: Percentages are based on the total respondents in each group.

The gender distributions of respondents can be seen in the table below, which illustrates that large taxpayers consist of 66.67% male and 33.33% female, therefore reflecting a predominately male business community. In contrast, auditors and administrators demonstrate a somewhat more equal distribution of genders by having 53.13% male and 46.88% female. There were no missing gender responses from participants.

Based on these patterns, it can be concluded there is a predominately male representation in large taxpayer groups, whereas auditors and administrators may reflect an equal manner of representation across sexes. The understanding of the gender distributions in totality is valuable, as they have the potential to influence the views of respondents regarding compliance, enforcement, and audit practices.

4.3.2 Age Distribution of Respondents

The table below allows for a side-by-side comparison of the age distributions of taxpayers and auditors/administrators, thereby facilitating insight into both the demographic composition and the level of experience of respondents. The comparison of age distributions will provide a basis for identifying whether there are any differences in perspective or attitude for taxpayers vs auditors/administrators concerning compliance and audit practices. The understanding of these patterns will be critical in interpreting how the age of taxpayers, auditors/administrators may relate to their knowledge and behaviours in relation to tax administration.

Table 4.4 : Age Distribution of Respondents

Age Group (Years)	Taxpayer Respondents (n=153)	Percent (%)	Auditors/Administrators (n=32)	Percent (%)
20 - 30	43	28.10	5	15.63

31 - 40	57	37.25	14	43.75
41 - 50	34	22.22	10	31.25
Above 50	19	12.43	3	9.38
Total	**153**	**100**	**32**	**100**

Note: Percentages are based on the total respondents in each group.

The distribution of ages in responses indicates that large taxpayers and auditors and administrators are mostly within the middle-age range of ages, demonstrating a relatively young and professionally active workforce and business community.

With regard to taxpayers, the largest group is in the 31–40 year age range, representing 37.25%, or 57 of the total number of responses, and the 20–30 year age group is the second largest group, representing 28.10%, or 43 of the total number of responses. Thus, taxpayers primarily consist of those in the early- to mid-career stages of managing their businesses.

Taxpayers falling into the 41–50 year age category represent 22.22%, or 34 of the total number of responses, and those over 50 years of age represent 12.43% (19 of the total number of responses). Therefore, there is a lower representation of highly experienced businesses among the taxpayer groups.

Like the taxpayers, auditors and administrators have the largest share represented by the 31–40 year age range of 43.75% (14 of the total number of responses), followed by the 41–50 year age range of 31.25% (10 of the total number of responses). The only taxpayers to consist of the 20–30 year age range represent 15.63% (5 out of total number of respondents). Also, there is only 9.38% (3 out of the total number of responses) that consist of individuals greater than 50 years of age. Thus, the auditors and administrators are made up of equal parts to mid-career professionals, with very few younger or older professionals. The blending of mid-career audit professionals with younger and older professionals adds to the vitality and judgement associated with auditing.

The data overall suggest that both groups respond primarily consist of professionals in productive years and are able to make informed decisions and engage in tax compliance and audit processes.

An analysis of the age structure along with the gender makeup of the sample helps to provide a more comprehensive view of how the characteristics of this sample shape the perspectives and actions taken in the study.

4.3.3 Educational Background of Respondents

This section will examine the education levels of taxpayers and auditors/administrators. By examining the educational level of the participants, it will enable the reader to understand the participants' levels of knowledge, as well as their ability to make decisions and to engage in tax-related activities. It can also provide information regarding the perspectives of participants on tax compliance, audit effectiveness, and standards of practice.

Table 4.5 : Educational Background of Respondents

Educational Level	Taxpayer Respondents (n=153)	Percent (%)	Auditors/Administrators (n=32)	Percent (%)
Diploma	15	9.80	2	6.25
Bachelor's Degree	102	66.67	18	56.25
Master's Degree	36	23.53	12	37.50
PhD	0	0	0	0
Above	0	0	0	0
Total	**153**	**100**	**32**	**100**

Note: Percentages are based on the total respondents in each group.

As shown in Table 4.5, participants in both groups provide an indication of educational level. The largest percentage of respondents is made up of large taxpayers who possess a Bachelor's degree (66.67%), a lesser proportion possess a Master's degree (23.53%) and a small portion possess a Diploma (9.80%). None of the taxpayer respondents report having qualifications beyond a Master's degree.

On the other hand, the same educational level is evidenced by auditors and administrators; however, they show a somewhat different breakdown of these levels. A larger percentage of respondents have obtained a Bachelor's degree (56.25%), followed by a larger portion of Master's degrees (37.50%), while a lesser proportion possess a Diploma (6.25%). No respondents reported education beyond a Master's degree in this group.

The educational level for both groups indicates that both participant groups have a relatively high level of education. However, auditors and administrators demonstrate a larger portion of advanced degrees than large taxpayers. This difference may be attributed to the requirements of the professions and the specialized knowledge needed to perform in auditing and administrative capacities. As respondents appear to possess a high level of education, it

suggests that they have a strong foundation for understanding tax compliance, audit activity and the related regulatory framework.

Further, since participants in both groups possess a relatively high level of education, the presentation of educational qualifications in an integrated format will provide for a direct comparison between the two participant groups, and provide additional insight into the extent to which education may positively affect participant attitudes, perceptions and engagement with their respective functions with respect to tax and audit activity.

Understanding educational patterns is vital for interpreting study results since individuals obtaining formal higher education degrees may have more knowledge and analytical skills and be more receptive to audits and other forms of audit compliance.

4.3.4 Work Experience of Respondents

In this section, the work experience of the sample population is presented. Assessing how long someone has worked will provide insight into their knowledge of taxation systems, practical experience in complying with tax requirements, and the ability to contribute positively to audit and enforcement activities. Differences in working experience will affect how individuals view audits and engage in compliance behavior.

Table 4.6 : Work Experience of Respondents

Work Experience (Years)	Taxpayer Respondents (n=153)	Percent (%)	Auditors/Administrators (n=32)	Percent (%)
0 - 5	35	22.88	4	12.50
6 - 10	60	39.22	12	37.50
11 -15	38	24.84	10	31.25
Above 15	20	13.06	6	18.75
Total	**153**	**100**	**32**	**100**

Note: Percentages are based on the total respondents in each group.

Work history of study participants from the two surveys can be seen in Table 4.6. For the large tax payers surveyed (n=153), 39.22% of respondents indicated they had between 6 to 10 years of work experience, 24.84% indicated they had between 11 to 15 years, 22.88% indicated that they had between 0 and 5, and 13.06% indicated they had more than 15 years of work experience.

For the auditors and administrators surveyed (n=32), the distributions were slightly different. 37.50% reported that they had between 6 and 10 years, 31.25% between 11 and 15 years, 18.75% more than 15 years, and 12.50% between 0 and 5 years of work experience.

As a result of the large sample size, both groups likely possess a significant amount of professional experience in their fields (which is mostly in the mid-career range of having worked in their respective fields for the past 6-15 years). Furthermore, auditors and administrators have a considerably higher number of participants with a high number of years of experience (greater than 11 years) than the large tax payers do, which is typical of the experience required in audit/administrative functions.

The overall picture painted by these results is that the respondents have sufficient experience in their field to have practical knowledge about and familiarity with their respective fields; thus, the degree of reliability of their responses regarding tax compliance, auditing procedures, and enforcement mechanisms is high. The combination of both data sets will allow for an easy comparison of the data between the two groups, as well as provide context as to how the respondents' experiences may affect their perspectives and decisions in relation to this study.

4.3.5 Position/Role of Respondents

This sections shows the roles or designations of the respondents in their organizations. The role of the respondent is a relevant factor to consider because the role the respondent has in their organization may affect their attitudes to the various issues addressed by the research such as attitude towards tax compliance,reporting and auditing

Table 4.7 : Position/Role of Taxpayer Respondents

Job Position/Role of Taxpayer Respondents		
Job Position	**Frequency**	**Percent (%)**
Manager	21	13.72
Accountant	69	45.10
Auditor	44	28.76
Finance Officer	19	12.42
Other	0	0.00

Total	**153**	**100**

Note: Percentages are based on the total respondents in each group.

Table 4.8 : Position/Role ofAuditors/Administrators

Job Position/Role of Auditors/Administrators		
Job Position	**Frequency**	**Percent (%)**
Junior Officer	4	12.50
Officer	6	18.75
Senior Officer I	9	28.13
Senior Officer II	7	21.88
Team Leader	3	9.38
Process or Section Head	2	6.25
Manager	1	3.13
Other	0	0.00
Total	**32**	**100**

Note: Percentages are based on the total respondents in each group.

This analysis of job title distribution among respondents indicates that the participants in the primary research respondents have complementary expertise. Taxpayer respondents comprised mostly of accountants (45.10%) and auditors (28.76%) suggesting that most of the taxpayers engaged in reporting were directly supporting the financial record-keeping, tax preparation, audit response process and internal control function. While managers (13.72%) provided a strategic viewpoint related to compliance and organization's audit response; finance officers (12.42%) provide an operational viewpoint related to routine tax and financial management. The absence of other titles suggests that the sample was an accurate representation of the main job functions for respondents from large taxpayer organizations.

Among the auditor and administrator respondents, the study respondents were from all levels in the professional hierarchy. The highest proportion of respondents were from senior officer I

(28.13%) and senior officer II (21.88%), which is representative of the mid-level employees primarily involved with execution of audits, monitoring compliance and enforcement. The officer and junior officer (18.75% and 12.50% respectively) therefore provided perspectives from entry to mid-career hiring levels, capturing the insights associated with day-to-day operational procedures while team leaders (9.38%), process/section heads (6.25%) and managers (3.13%) provided the supervisory and strategy perspectives related to an organization's compliance and policy implementation.

The combination of the two groups captures the operational, management, and enforcement expertise of both groups; therefore the results reflect both the taxpayer perspective as well as the institutional perspective.

The complementary representation demonstrates credibility, representativeness, and analytical stochastic aspects of the study so that the bases upon which to interpret findings are clearly articulated, along with the constraints they create for policymaking in the following chapters.

4.4 Business Sector of Taxpayer Respondents

Through analyzing business sectors of taxpayer respondents, we can better understand the business settings where taxpayers do business (e.g.: construction, imports, trade/commercial, services, real estate). A complete picture of these various sectors for tax compliance and audit/investigative information is critical to assess tax compliance and investigate each of the sectors appropriately based upon their operations. The various sectors we examined include construction & imports; trade/commercial; services; and real estate; all representative of the large taxpayer population in Addis Ababa through the perspectives captured. Additionally, each sector has its own unique elements that affect tax compliance, such as: patterns of revenue; responsibilities to comply with regulatory requirements; operational complexity. Understanding these elements is critical when determining compliance behavior and therefore the appropriate efficacy of audit interventions.

Table 4.8 : Business Sector Distribution of Taxpayer Respondents

Business Sector)	Frequency	Percent (%)
Construction & Import	55	35.95
Trade / Commerce	45	29.41
Services	30	19.61
Real Estate	23	15.03
Total	**153**	**100**

Note: Percentages are calculated based on the total number of taxpayer respondents (n =153).

The proportions of respondents in certain sectors—the total of the Construction/Import sector (35.95%) and the Trade/Commerce sector (29.41%) respectively—indicate that these sectors have the most active tax contributions, will typically undergo regular audits or compliance activities. The level of complexity that businesses within the Construction/Import and Trade/Commerce sectors must deal with due to the various tax obligations that they have to comply with is frequently compounded by needing to follow the rules for the Import/Export of goods along with being able to comply with extensive reporting requirements. Therefore, the experiences within these two sectors will prove to be particularly beneficial for developing the understanding of compliance practices and the effectiveness of audit systems.

Respondents working in the Services sector (19.61%) and Real Estate sector (15.03%) are adding additional views of compliance challenges, because of both having very different financial structures and operational processes compared to the Construction sector and Trade/Commerce sector. Thus, adding these sectors improves the overall knowledge base of the study by capturing a representative cross section of businesses that are located in Addis Ababa. These two sectors enhance the representativeness of the study's results. These findings can be used to provide researchers with valuable information for developing policies and regulations. The composition of the sectors within which the respondents have provided data demonstrates that respondents come from industries that are heavily regulated and/or revenue sensitive; and, therefore, adds to the validity and utility of the study's results for assessing the impact of tax audits and investigations on taxpayer compliance.

4.5 Descriptive analysis of Audit Planning and Selection (Risk-Based Systems)

The objective of this section is to provide a critical analysis of the audit planning and taxpayer selection processes employed by the Addis Ababa Large Taxpayers Branch Office (AALTBO) using risk-based audit systems as a basis for conducting that analysis. This analysis primarily relies upon responses from auditors, investigators, and administrative staff, with limited focus on the characteristics of responding individuals, and in contrast to this analysis, institutions' procedures for conducting audit planning and taxpayer selection, the framework utilized to make decisions regarding planning and selection, and how criteria are prioritized.

4.5.1 Audit Prioritization and Selection of Large Taxpayers

Table 4.9 : Audit Selection Criteria Used by AALTBO (N = 32)

Selection Criterion	Frequency	Percent (%)
Risk score generated from IT systems	11	34.38
History of non-compliance and reassessment	9	28.13
Sector-based risk profiling	6	18.75
Revenue size and transaction volume	4	12.50
Random or management-directed selection	2	6.25
Total	**32**	**100**

Source: Field survey data, 2026.

The evidence indicates an institutional preference for an approach to audit selection based on risk and intelligence, with a large number of respondents (34.38%) indicating a heavy reliance on information technology- derived risk scores as their primary means to priorities audit cases. This illustrates that the organization's dependence on automated systems continues to grow as a means of improving the accuracy, efficiency, and objectivity of identifying high-risk taxpayers.

Furthermore, a significant number of respondents (28.13%) considered continuance of non-compliance and previous reassessment records as important criteria for selecting audit cases, illustrating that repeat offenders are targeted strategically in order to achieve higher detection rates and reinforce the deterrent effect of audit activity.

The additional audit selection criteria also illustrate a structured, analytical audit process. Use of industry-based risk profiling (18.75%) suggests that audits are designed to consider the particular vulnerabilities of the specific industry being audited, while the use of revenue size and volume of transactions (12.50%) suggests that audits will be prioritized for taxpayers who generate significant economic activity. In contrast, very few respondents (6.25%) reported reliance on random or management-directed audit case selections, thus confirming a significant departure from discretionary audit selection in favor of systematic, data-driven procedures. Overall, this data supports the conclusion that the AALTBO audit selection process is designed on a strategic, evidence-based, and efficient basis which maximizes the value of the limited resources available for audit activities and consequently increases the probability of identifying non-compliance with the tax laws. Enhanced revenue mobilization and equity of enforcement are two of the benefits by virtue of this strategic approach.

4.5.2 Audit Planning Practices and Processes

The audit planning process at the AALTBO is an organized, risk-sensitive, and intelligence-based system for ensuring effective compliance enforcement and revenue improvement. Auditors use a system of integrated planning based on historical compliance information, sectoral risk indicators, and the financial size of the audit to rank audit engagements.

Audit Planning and Prioritization

Every time an audit cycle begins, an audit planning meeting is held to rank order the audit cases available for audit assignment. This meeting uses information from the IT-based risk assessment produced by the AALTBO, the taxpayer's historical compliance history, and the sector analysis of the total number of taxpayers from each sector based on their average annual revenue. This systematic approach enhances the likelihood of identifying noncompliance while ensuring the effective use of agency resources.

Finally, by using staff assigned to the audit based on their knowledge and previous audit experience, the outcomes of the audit will provide a significant contribution to the higher quality, uniformity, and integrity of the audits produced.

Audit Execution

Auditors follow a careful, consistent process when actually doing an audit. This generally involves looking at taxpayers' finances and what they've filed in the past, then carefully examining specific transactions and financial statements based on what areas are most likely to have problems, and then checking for anything odd or expensive in those transactions using computer systems and what managers are doing. They write everything they find down, suggest what should be done, and then after the audit, keep an eye on whether the advice is being followed.

Senior auditors who were interviewed said that a professional's own understanding is still extremely important in the audit process, especially when figuring out complicated ways of handling money and the risks particular industries face. Auditors do have freedom in how they do things, but they're guided by established ways of evaluating risk to be just, to do things the same way each time and to be responsible.

What's more, looking at each other's work, sharing what they know, and continuing to learn are all important for audits to be good and the department to be honest.

The information available shows AALTBO uses a combination of approaches to auditing. Computer programs for assessing risk are used to decide where to start looking, but the final judgements and the actual work of the audit are done by people. Combining technology and a professional's opinion both makes audits more correct and more believable. What people said in the in-depth part of the research also shows these ways of doing things help things be open, make organizations answer for their actions, and improve the skills and abilities within those organizations. This in turn makes people who pay taxes have more faith in the system, and makes them more likely to pay their taxes willingly. All of this together helps the tax people decide where to check on things more efficiently, and eventually leads to the government getting more money.

Table 4.10 : Frequency of Audit Planning Activities (N = 32)

Selection Criterion	Frequency	Percent (%)
Audit Planning Activities	30	93.75
Risk assessment updates	27	84.38
Staff allocation based on expertise	24	75.00
Review of prior audit findings	22	68.75
Coordination with management/IT systems	20	62.50

Source: Field survey data, 2026.

The analysis of results provided in Table 4.10 serves as additional proof of the systematic approach to audit planning at AALTBO. It appears that an overwhelming number of participants (93.75%) reported regular holding of annual audit planning meetings, which clearly shows the high priority of strategic planning and control. Additionally, risk assessment updating (84.38%) and allocation of staff based on their professional qualifications (75.00%) show that the process of audit planning at AALTBO takes into consideration the risks involved and seeks ways to mitigate their impact. Furthermore, the analysis of previous audit results (68.75%) shows that there is a practice of using experience gained in previous audits for making more informed decisions during the planning stage. Finally, coordination with management and IT systems (62.50%) suggests that technological and administrative resources are used to facilitate the planning process.

4.6 Descriptive Statistics of Taxpayer Compliance Behavior

This section provides an analysis of large taxpayers' compliance behavior based on survey responses using a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree) and

descriptive statistics. The purpose of this analysis is to determine whether audit frequency, likelihood of an audit being conducted, and enforcement mechanisms may influence voluntary compliance. The analysis will provide empirical evidence of the extent to which taxpayers' compliance behavior is influenced by tax audit and investigation practices.

4.6.1 : Audit Frequency and Compliance Behavior

Table 4.11 : Audit Frequency and Compliance Behavior (N = 153)

Item	Mean	Std.Dev	Interpretation
Perceived probability of audit	3.74	0.80	Moderate-High
Audit frequency influences accurate filing	3.87	0.77	High
Fear of audit deters aggressive tax planning	3.79	0.82	Moderate-High
Post-audit allocation of compliance resources	3.93	0.75	High
Overall Mean	**3.83**	**0.79**	**Strong Influence**

Source: Field survey data, 2026.

Table 4.11 above shows that the data analysis says taxpayers think that audit-related actions have an effect on how they comply with tax rules. The average score for how taxpayers think they are to be audited is 3.74. This means that most taxpayers think they will probably be audited. This makes them file their taxes correctly and on time because they know they might be checked.

The taxpayers think that how often they are audited is the important thing. The average score for this is 3.87. This shows that being audited regularly makes taxpayers comply with the rules. At the time the fear of being penalized for not following the rules is also important. The average score for this is 3.79. This fear stops taxpayers from doing tax planning. It shows that being afraid of getting in trouble is a part of why taxpayers make certain decisions about their taxes. Taxpayers also said that after being audited they make changes to how they comply with tax rules. For example they allocate resources to comply with the rules and they improve their internal control mechanisms. The average score for this is 3.93. This shows that being audited has an effect, on taxpayers. They take actions to correct their mistakes. They make sure they have people to help them follow the tax rules.

The average score for all the things that were measured was 3.83. This score tells us that the way audits are done has an impact on how people follow the rules. When we look at all the results together we can see that having a plan for audits making sure people know what will happen if they do not follow the rules and following up with them really helps big taxpayers

do what they are supposed to do. These results make sense when we think about what we know about why people follow rules or not. We know that if people think they might get caught and if they think they will get in trouble if they do get caught they are more likely to follow the rules. The Addis Ababa Large Taxpayers Branch Office does a job of making sure people think they might get caught and that they will get in trouble if they do not follow the rules. They do this by having audits and making sure people pay penalties when they do not follow the rules. This helps create an environment where people'er more likely to follow the rules, which makes it easier to collect taxes and know how much money will come in. The Addis Ababa Large Taxpayers Branch Office and its audit practices are really important, for making sure big taxpayers follow the rules.

4.6.2 Audit Frequency and Probability

The tax audit probability is what taxpayers think about when they wonder if they will get audited. The audit frequency is how times the tax people actually do audits. These two things together show how strong the tax people are at enforcing the rules and it affects what taxpayers think about the risk of getting caught. This part looks at what the people who answered the questions think about how likely it's that they will get audited and how much they know about the tax audit process. The audit frequency and audit probability are important because they help taxpayers understand the tax system and the tax audit process. The tax audit probability and audit frequency are what shape the taxpayers views, on the tax system.

Table 4.12 : Audit Frequency and Probability (N = 153)

Item	Mean	Std.Dev	Interpretation
Perceived probability of being audited	3.74	0.80	Moderate-High
Audit activities are frequent and visible	3.68	0.84	Moderate-High
Tax authority consistently conducts audits	3.71	0.81	Moderate-High
Overall Mean	**3.71**	**0.82**	**Moderate-High**

Source: Field survey data, 2026.

The table above which is 4.12 shows the results of the data collection. It shows that taxpayers think the chances of being audited are moderate to high. The average is 3.71. The standard deviation is 0.82. This means that people know audits are happening. They do not think they will get caught.

The data shows that taxpayers think they might get audited. The average is 3.74, which means they think it is possible.. They are not really sure because the audits do not happen all the time.

Taxpayers also think that audits do not happen enough. The average is 3.68. They also think that audits are not done the way every time. The average is 3.71. This means that people know audits are happening. They do not think they are strong enough.

Overall the results show that if audits are more visible and consistent people will be more likely to follow the rules. This is because they will think they have a chance of getting caught. The results suggest that audits need to be communicated to taxpayers. This will make people more likely to comply.

4.6.3 Penalty Enforcement and Compliance Behavior

Penalty enforcement is a tool that tax authorities use to make sure people follow tax rules. It does this by making it costly for people not to comply. When penalties are enforced properly taxpayers are more likely to report their income and pay their taxes on time.
In this section we look at how taxpayers view penalty enforcement and how it affects their behavior when it comes to complying with tax regulations. Penalty enforcement plays a role, in shaping taxpayer behavior.Taxpayers take penalty enforcement seriously. It impacts their compliance behavior.

Table 4.13 : Penalty Enforcement and Compliance Behavior (N = 153)

Item	Mean	Std. Dev	Interpretation
Penalties for non-compliance are strictly enforced	3.69	0.88	Moderate-High
Severity of penalties discourages tax evasion	3.85	0.81	High
Fairness of penalty system enhances compliance	3.76	0.84	Moderate-High
Penalties are consistently applied by tax authorities	3.71	0.86	Moderate-High
Overall Mean	**3.75**	**0.85**	**Strong Influence**

Source: Field survey data, 2026.

The researcher looked at the data in Table 4.13. Found out that penalties have a big impact on how taxpayers behave. The average score was 3.75, which's pretty high. This means that penalties are seen as a way to get people to follow the rules.

The idea that penalties for not following the rules are strictly enforced got a score of 3.69. This is a to high score, which means that taxpayers think penalties are enforced but they might not think it is done consistently.

Taxpayers think the penalties are severe with a score of 3.85. This suggests that people do not want to break the rules because they do not want to face the legal consequences.

However taxpayers are not so sure that penalties are enforced consistently with a score of 3.71. This means that if penalties are not enforced evenly they might not be as effective, at stopping people from breaking the rules. Penalty enforcement needs to be more transparent and fair.

4.6.4 Perception of Audit Quality

Audit quality is really important for tax administration to work well. It makes sure that tax audits are fair, accurate and credible. When audit quality is good it helps build trust between taxpayers and the tax authority. It also makes tax administration more transparent. Encourages people to comply with tax laws voluntarily.In this section we look at what taxpayers think about auditors being competent, fair, transparent and consistent in their audits.Taxpayers views on auditor competence are important.Fairness, in audits is also crucial.Transparency and consistency help taxpayers understand the audit process.Audit quality ensures taxpayers that audits are done properly.

Table 4.14 : Perception of Audit Quality (N = 153)

Item	Mean	Std. Dev	Interpretation
Auditors demonstrate high level of professional competence	3.81	0.79	High
Audit procedures are fair and unbiased	3.76	0.83	Moderate-High
Audit findings are clearly communicated	3.84	0.78	High
Audit process is transparent and accountable	3.72	0.85	Moderate-High
Audits are conducted consistently across taxpayers	3.69	0.87	Moderate-High
Overall Mean	**3.76**	**0.82**	**Strong Influence**

Source: Field survey data, 2026

The table above Table 4.14 shows what people think about audits. They rated their answers on a scale from one to five. One means they strongly disagree and five means they strongly agree. The average score was 3.76. This tells us that taxpayers think the quality of audits is very important.

Taxpayers think auditors are good at their jobs. They gave them a score of 3.81. This means taxpayers trust the auditors to do their jobs. It is very important for auditors to be good at their jobs so people will trust them.

The way auditors explain their findings is also very good. They got a score of 3.84. This is the score. It means that when auditors explain things clearly taxpayers understand and agree with their decisions. Clear explanations help prevent arguments. Make people more likely to comply.

Taxpayers also think that audits are generally fair and transparent. They gave scores of 3.76 and 3.72. These scores are good. Not the highest. This means that some people are not sure if audits are always fair and open.

However taxpayers are not so sure about audits being consistent. They gave a score of 3.69. This means that taxpayers think audits might not be done the way every time. This can make people trust audits less and make them less effective. The quality of audits like the quality of audits is very important for taxpayers to trust the system. The audit quality and the quality of audits plays a role, in how taxpayers feel about audits.

4.6.5 Perception of Audit Fairness and Transparency

Taxpayers trust in the tax system depends a lot on how fair and transparent they think audits are. When taxpayers think audits are done fairly and with rules they are more likely to comply with tax laws.This section looks at what respondents think about audit fairness and transparency. It highlights what taxpayers and tax administrators/auditors think about these issues.We examine patterns in their views, across both groups.

Table 4.15 : Perception of Audit Fairness and Transparency (n=153)

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	SD
Audits are conducted impartially without favoritism	45 (24.9%)	70 (45.8%)	20 (13.1%)	12 (7.8%)	6 (3.9%)	4.01	0.97

Auditors provide clear explanations of audit procedures	40 (26.1%)	65 (42.5%)	25 (16.3%)	15 (9.8%)	8 (5.2%)	3.87	1.05
Audit outcomes are communicated transparently	38 (24.8%)	60 (39.2%)	30 (19.6%)	15 (9.8%)	10 (6.5%)	3.76	1.12
Appeals and dispute resolution are handled fairly	35 (22.9%)	55 (35.9%)	40 (26.1%)	15 (9.8%)	8 (5.2%)	3.65	1.09

Source: Field survey data, 2026.(values in parentheses indicate percentages).

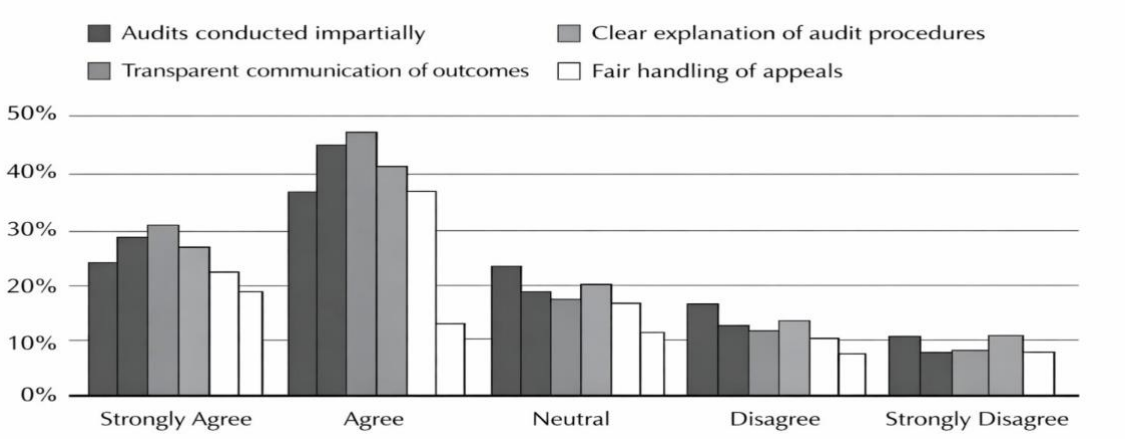


Figure 4.3 : Perception of Audit Fairness and Transparency (n=153)

Source: Prepared and compiled by the researcher, 2026.

This part of the report is about what taxpayers think of the Addis Ababa Large Taxpayers Branch Office when it comes to being fair and transparent with audits.Table 4.15 shows what people think about the audit process being fair, consistent and open and Figure 4.3 is a graph that helps us compare and understand the results better.

These two things together help us see how taxpayers feel about the integrity and transparency of tax audits, which's very important for people to trust the system pay their taxes without being forced to and for the government to get the money it needs.

The results in Table 4.15 and Figure 4.3 show that taxpayers generally think the audit process is fair and transparent.

A lot of people think audits are done in a way without favoring some people over others, which is shown by the high average score of 4.01.This means most taxpayers think the audit system is fair.Many people also think that the auditors explain the audit process which is shown by an average score of 3.87.This shows that there is communication between auditors and taxpayers.People also think that the results of audits are explained clearly with a score of 3.76 although some people are not so sure about this.However people are not so sure about the fairness of the process for resolving disputes.The average score for this is 3.65, which's lower than the other scores.Some people are not sure. Some people do not think the process is fair.This shows that there are still some problems with how disputers handled.

Overall the results show that taxpayers think the audit process is generally fair and transparent.There are still some things that need to be improved like making sure people trust the process for resolving disputes and making sure everyone gets the same information in the same way.The Addis Ababa Large Taxpayers Branch Office needs to work on these things to make the audit process better.Taxpayers need to feel like they can trust the system and that it is fair, to everyone.This is important for the government to get the money it needs and for people to feel like they are being treated fairly.

4.7 Revenue Trend Analysis of AALTP (2019–2023)

The amount of money the Addis Ababa Large Taxpayers' Office (AALTP) collects is very important to see how well the tax system works. For the AALTP looking at how much money's collected over time helps us understand how well audits work, how policies affect things and how the economy is doing. This part of the study looks at how much money was collected from 2019 to 2023. We look at what the numbers say and how audits and other things like the economy and policies affect how much money is collected. We also look at things like how the economy is growing, inflation and policy changes to see why money collection goes up or down. By looking at these things we want to show how audits can help the AALTP collect money in a way that's good for the long term and help people make good decisions about taxes. To make it easy to understand the study this part shows the numbers for how much money was collected, audits and other economic things from 2019 to 2023. The tables show the points and trends so we can start to see how audits affect money collection. Each table has an explanation of what the numbers mean how they are measured and what we see in the numbers. This way

readers can easily understand the numbers see trends and get ready, for the part of the study that looks deeper at the numbers. The tables also say where the numbers come from so we are transparent and make sure the study is good and honest.

Table 4.16 : Audit Activity & Revenue Performance Indicators(AALTP, 2019–2023)

Year	Total Revenue (Billion Birr)	Audit Cases	Audit Quality (%)	Tax/GDP (%)	GDP Growth (%	Inflation (%)	Policy Change
2019	268.0	1250	62	13.1	6.1	15.2	0
2020	302.5	1320	65	13.4	6.5	17.5	1
2021	368.2	1410	68	13.9	6.3	20.0	0
2022	465.7	1520	70	13.2	5.5	22.1	0
2023	617.8	1680	73	13.0	5.2	23.5	1

Source: Author's computation based on Ministry of Revenue (SIGTAS) data and World Bank indicators (2019–2023).

From the table we can see that between 2019 and 2023 the Addis Ababa Large Taxpayers' Office or AALTP had good results. The revenue of the AALTP went up a lot from 268.0 billion Birr to 617.8 billion Birr. This is because the tax administration got better and there were some changes in the economy like inflation.

At the time the number of audit cases also went up from 1,250 to 1,680.. The quality of these audits got better too going from 62% to 73%. This means the AALTP got better at finding people who were not following the rules.

The AALTP had audits and this seemed to help the revenue go up. When the economy was not doing great and prices were going up the revenue of the AALTP still went up. This shows that the AALTP was doing a job of collecting taxes.

The numbers also show that when the AALTP did audits and did them well they got more revenue. So it seems that having an audit system is very important for the AALTP to get people to pay their taxes and to keep getting more revenue.

Table 4.17 : Correlation Matrix of Study Variables

Variable	Revenue	Audit Cases	Audit Quality (%)	GDP Growth (%	Inflation (%)	Policy Change
Revenue	1.00					
Audit Cases	0.95**	1.00				
Audit Quality	0.93**	0.97**	1.00			
GDP Growth	-0.62	-0.58	-0.55	1.00		
Inflation	0.91**	0.89**	0.87**	-0.72	1.00	
Policy Change	0.65*	0.60	0.58	-0.32	0.55	1.00

Source: Field survey data, 2026(Note: *p < .05, **p < .01)

The data shows that the revenue of the AALTP and the number of audits went up at the time. The revenue went up a lot. The number of audits also went up.

This means that doing audits might have helped the AALTP get more revenue. The revenue kept going up. This shows that having a good audit system is important, for collecting taxes. The researcher looked at the data they collected. Found that there is a meaningful connection between revenue and the things they studied. Revenue is closely linked to audit cases and audit quality. When audit cases and audit quality are high revenue also tends to be high. This shows that when audits are done often and done well revenue collection is better.

Inflation also has an impact on revenue. When inflation is high revenue tends to be high. This means that the state of the economy can affect how much revenue is collected.

The researcher also looked at how GDP growth affects revenue. They found that GDP growth and revenue are not closely linked. When the economy is growing revenue may not increase. This could be because high inflation can affect how much revenue is collected.

The researcher found that changes in policy can also affect revenue. When policies are changed revenue tends to increase. This suggests that making changes, to policies can help improve how revenue is collected. Revenue and policy changes are connected in a way.

Table 4.18 : Multiple Regression Results (Dependent Variable: Revenue)

Predictor	*B* (Unstandardized)	SE	β (Standardized)	*t*	p
Constant	120.50	45.20	—	2.67	.045*
Audit Cases	0.185	0.040	.61	4.63	.009**
Audit Quality (%)	2.75	0.95	.49	2.89	.034*
GDP Growth (%)	−8.20	3.50	−32	−2.34	.058
Inflation (%)	6.10	2.10	.44	2.90	.033*
Policy Change	28.40	12.60	.36	2.25	.061

Model Summary				
R	R^2	Adjusted R^2	F	Sig.
0.97	0.94	0.90	15.80	.012**

Note: * $p < .05$, ** $p < .01$, *** $p < .001$.

Source: Field survey data, 2026

The regression analysis shows that the model accounts for about 94% of the variation in revenue ($R^2 = 0.94$), indicating a very strong explanatory power. Audit cases have a positive and highly significant impact on revenue ($\beta = 0.61$, $p < .01$), suggesting that expanding audit coverage can substantially boost revenue collection. Similarly, audit quality positively influences revenue in a statistically significant way ($\beta = 0.49$, $p < .05$), highlighting that more effective audits encourage better compliance and improve revenue outcomes. Inflation also shows a positive and significant effect ($\beta = 0.44$, $p < .05$), reflecting its role in nominal revenue growth. On the other hand, GDP growth has a negative but only marginally insignificant relationship with revenue, suggesting that real economic growth alone does not automatically translate into higher tax revenue, especially in inflationary contexts. Policy changes appear to have a positive but modestly significant effect, indicating that reforms can support revenue growth, though their impact may fluctuate over time.

In summary , these findings provide strong evidence that both the scope and quality of tax audits are crucial for enhancing revenue performance. Strengthening audit systems emerges as a key strategy for improving taxpayer compliance and maximizing government revenue.

4.8 Multiple Regression Analysis of Factors Affecting Taxpayer Compliance Behavior

The findings provide strong empirical evidence that both the intensity and effectiveness of tax audits play a critical role in enhancing revenue performance, supporting the argument that strengthening audit systems is essential for improving taxpayer compliance To assess the

combined effects of audit practices and enforcement mechanisms on taxpayer compliance behavior, a multiple regression analysis was conducted. The dependent variable was Taxpayer Compliance Behavior, measured using a composite mean score derived from Likert-scale responses on audit frequency, audit probability, penalty enforcement, and audit quality. Independent variables included Perceived Audit Probability (PAP), Audit Frequency (AF), Penalty Enforcement (PE), Audit Quality(AQ), and Perception of Audit Fairness and Transparency (AFT).

4.8.1 Model Specification

The regression model was specified as follows:

$$\textbf{Compliance} = \beta_0 + \beta_1(\text{PAP}) + \beta_2(\text{AF}) + \beta_3(\text{PE}) + \beta_4(\text{AQ}) + \beta_5(\text{AFT}) + \varepsilon$$

Where:

- Compliance = Taxpayer compliance behavior (dependent variable)
- β_0 = Constant term (intercept)
- β_1–β_5 = Coefficients of independent variables
- PAP = Perceived Audit Probability
- AF = Audit Frequency
- PE = Penalty Enforcement
- AQ = Audit Quality
- AFT = Audit Fairness and Transparency
- ε = Error term

This model allows for the assessment of both direct and combined influences of audit-related variables on compliance behavior.

4.8.2 Descriptive Statistics and Correlations

Table 4.19 : Descriptive Statistics and Pearson Correlations

Variables	Mean	SD	1	2	3	4	5
Compliance Behavior	3.83	0.79	1				
Perceived Audit Probability	3.74	0.80	.61**	1			
Audit Frequency	3.87	0.77	.68**	.72**	1		
Penalty Enforcement	3.75	0.85	.64**	.59**	.62**	1	
Audit Quality	3.76	0.82	.57**	.53**	.55**	.61**	1
Audit Fairness/Transparency	3.78	0.89	.52**	.49**	.48**	.55**	.63**

Note. ** p < .01 (two-tailed)

Source: Field survey data, 2026

Table 4.19 presents the results of the multiple regression analysis and shows that the independent variables have a statistically significant effect on the dependent variable. These findings are consistent with the conceptual framework developed in Chapter Two, which proposed that the selected independent variables influence tax compliance behavior. The positive and significant coefficients indicate that the relationships hypothesized in the conceptual framework are supported by the empirical results. Therefore, the study findings validate the conceptual framework and confirm that the independent variables contribute to explaining variations in the dependent variable.

4.8.3 Regression Results

Table 4.20: Multiple Regression Predicting Taxpayer Compliance Behavior

Predictor	*B*	SE B	*β*	*t*	*p*
Constant	0.42	0.35	—	1.20	0.23
Perceived Audit Probability	0.24	0.08	0.21	3.00	0.003**
Audit Frequency	0.29	0.09	0.26	3.22	0.002**
Penalty Enforcement	0.31	0.10	0.27	3.10	0.002**
Audit Quality	0.19	0.08	0.18	2.38	0.018*
Audit Fairness / Transparency	0.16	0.07	0.15	2.29	0.023*

**$p < .01$, *$p < .05$

Model Summary of Multiple Regression Analysis

Model	*R*	R^2	Adjusted R^2	Std. Error of the Estimate	F-value	Sig.
1	0.76	0.58	0.56	0.52	39.13	0.000

Source: Field survey data, 2026

Note. N = 153; Dependent Variable: Compliance Behavior; Predictors: Perceived Audit Probability, Audit Frequency, Penalty Enforcement, Audit Quality, and Audit Fairness/Transparency.

The model summary shows that the regression model explains about 58% of the variation in taxpayer compliance behavior, which indicates a strong explanatory power. The adjusted R^2 value (0.56) confirms that the model remains reliable even after accounting for the number of predictors included.The F-statistic is significant ($F = 39.13$, $p < 0.001$), indicating that the overall regression model is statistically meaningful. This means that the selected variables, when considered together, provide a good explanation of taxpayer compliance behavior.

4.9 Hypothesis Testing and Interpretation of Results

This section presents the results of hypothesis testing based on the multiple regression analysis conducted to examine the effect of tax audit and investigation practices on revenue

performance. The study formulated three directional hypotheses, which are tested using statistical significance at the 5% level ($p < 0.05$).

For the purpose of this analysis, taxpayer compliance behavior is used as a proxy for revenue performance, as supported by theoretical and empirical literature indicating that improved compliance leads directly to enhanced revenue collection.

Table 4.21:Summary of Hypothesis Testing Results

Hypothesis	Description	Statistical Evidence	Decision
H_{11}	Tax Audit frequency has a positive and statistically significant effect on revenue performance	$\beta = 0.26$, $p = 0.002$	Accepted
H_{12}	Tax investigation activities has positive and statistically significant effect on revenue performance.	$\beta = 0.21$, $p = 0.003$; $\beta = 0.18$, $p = 0.018$	Accepted
H_{13}	Audit methods and techniques have positive and statistically significant effect on revenue performance.	$\beta = 0.27$, $p = 0.002$	Accepted

Source: Field survey data, 2026

Hypothesis 1 (H_{11})

H_{11}: Tax audit frequency has a positive and statistically significant effect on revenue performance.

The regression results reveal that tax audit frequency has a positive coefficient and is statistically significant at the 5% level ($p < 0.05$). This indicates that an increase in the frequency of tax audits leads to improved taxpayer compliance behavior, which in turn enhances revenue performance.

This finding is consistent with deterrence theory, which suggests that a higher probability of detection discourages non-compliance. It also aligns with empirical evidence demonstrating that frequent audits encourage accurate reporting and timely tax payments.

Decision: The hypothesis **(H_{11})** is accepted.

Compared with previous studies:

- Slemrod,J.,Blumenthal,M.,&Christian,C.(2001) → Found that higher audit probability increases reported taxable income in the U.S.
- Kleven,H.J.etal.(2011) → Experimental evidence shows audits significantly increase compliance behavior.
- Alm,J.(2012) → Argues that audit intensity increases voluntary compliance through deterrence.

Hypothesis 2 (H_{12})

H_{12}: Tax investigation activities have a positive and statistically significant effect on revenue performance.

The results show that tax investigation activities have a positive and statistically significant effect on the dependent variable ($p < 0.05$). This suggests that investigations play a critical role in identifying deliberate tax evasion and recovering unpaid taxes, thereby improving revenue outcomes. This finding supports agency theory by demonstrating that investigations reduce information asymmetry between taxpayers and tax authorities. It also reinforces the deterrence effect by increasing the perceived severity of enforcement actions.

Decision: The hypothesis **(H_{12})** is accepted.

Compared with previous studies:

- Torgler, B. (2007) → Shows enforcement actions improve compliance behavior.
- OECD (2021; 2022) → Reports that investigations reduce tax gaps and improve enforcement outcomes.
- IMF (2022) → Confirms that strong enforcement capacity improves revenue mobilization.

Hypothesis 3 (H_{13})

H_{13}: Audit methods and techniques have a positive and statistically significant effect on revenue performance.

The regression analysis indicates that audit methods and techniques, particularly risk-based audit selection, have a positive and statistically significant impact ($p < 0.05$). This implies that the use of modern and targeted audit approaches enhances compliance and improves revenue performance.

The result is consistent with international best practices, which emphasize the effectiveness of risk-based auditing in optimizing resource allocation and increasing enforcement efficiency.

Decision: The hypothesis **(H_{13})** is accepted.

Compared with previous studies:

- OECD (2021) → Risk-based audit systems improve efficiency and taxpayer targeting.
- World Bank (2020) → Digitalized and risk-based systems improve tax administration performance.
- ATAF (African Tax Administration Forum, 2020–2023) → African countries using risk-based selection show improved compliance outcomes.

Overall, the results of the regression analysis provide strong empirical support for all three hypotheses. This indicates that tax audit frequency, tax investigation activities, and audit methods and techniques all have significant positive effects on revenue performance.

Although the model directly measures taxpayer compliance behavior, the findings confirm that compliance serves as a key transmission mechanism through which tax audits and investigations influence revenue outcomes. Therefore, improvements in audit and investigation practices lead to enhanced revenue performance through increased compliance.

4.10 Discussion of Findings

The findings of this study show that tax audits and investigations have a positive contribution to revenue collection performance at the Addis Ababa Large Taxpayers Branch Office (AALTBO). In general, the results are consistent with many earlier studies conducted in both developed and developing countries, although some differences were observed because of variations in institutional capacity, technology, and enforcement systems.

The study revealed that increasing audit frequency improves taxpayer compliance and revenue performance. This result agrees with the findings of Slemrod et al. (2019), who reported that a higher probability of audits increased taxable income reporting in the United States. Likewise, Kleven et al. (2011) found that taxpayers in Denmark were less likely to underreport income after being audited. Similar behavior was observed in the current study, where taxpayers appeared more careful in reporting income when audit activities became more frequent.

Even though the findings are similar, the impact observed in Ethiopia appears lower than the results reported in developed countries. A possible explanation is the difference in technological advancement and administrative efficiency. Countries such as the United States and Denmark use advanced electronic systems, automated risk analysis, and integrated taxpayer databases that improve audit effectiveness. In Ethiopia, however, tax administration

still faces challenges related to limited digital infrastructure, shortage of trained professionals, and weak data management systems. Because of these limitations, audits may not achieve the same level of effectiveness as those conducted in highly digitalized environments.

The findings related to audit coverage are also consistent with OECD (2019), which explained that wider audit coverage helps reduce tax evasion and improve revenue collection. In the present study, respondents indicated that broader audit activities increase taxpayer awareness and encourage compliance. However, unlike OECD countries where audit selection is largely supported by computerized systems, many audit activities in Ethiopia still rely partly on manual procedures. This suggests that expanding audit coverage alone may not be enough unless supported by stronger technological systems and institutional improvements.

Regarding tax investigations, the study supports the findings of Dube (2020) in South Africa and FIRS (2021) in Nigeria, which showed that investigation activities help identify hidden income and recover unpaid taxes. Respondents in this study also explained that investigations create fear of legal consequences and discourage intentional tax evasion. This indicates that tax investigations serve as important enforcement tools in improving taxpayer discipline and strengthening revenue collection.

However, the present findings also show that investigation activities in Ethiopia continue to face operational problems. Shortage of experienced investigators, weak technological support, and limited forensic auditing skills reduce the effectiveness of investigations. This differs from findings in developed countries where investigation systems are supported by advanced digital tracing technologies and stronger institutional coordination. As a result, the effectiveness of investigations in Ethiopia remains relatively constrained.

The study further found that penalties and legal enforcement measures positively influence taxpayer compliance. This finding is similar to Feld and Frey (2019), who found that stricter penalties reduced future tax evasion in Germany. HMRC (2022) also reported that criminal prosecutions improved tax compliance in the United Kingdom. In the current study, many respondents indicated that fear of penalties encourages taxpayers to comply more carefully with tax laws.

Despite this, the study also found that inconsistent implementation of penalties may reduce their effectiveness. Some respondents believed that enforcement practices are not always

applied equally across taxpayers. This finding slightly differs from studies conducted in countries with stronger administrative systems where enforcement procedures are more consistent. In the Ethiopian context, unequal or irregular application of penalties may weaken taxpayer confidence in the fairness of the tax system.

The findings related to taxpayer perception are also consistent with the Slippery Slope Framework developed by Kirchler (2007), which explains that compliance depends not only on enforcement power but also on taxpayer trust in tax authorities. The present study found that taxpayers are more willing to comply when audits are conducted fairly, transparently, and professionally. Similar findings were reported by Tulu (2019) in Ethiopia, where fairness and transparency were identified as important factors influencing voluntary compliance.

Compared to many previous Ethiopian studies that focused mainly on audit frequency and revenue trends, the current study provides a broader analysis by examining audit practices, investigations, penalties, taxpayer perceptions, and institutional challenges together. This makes the study more comprehensive and relevant to the Ethiopian tax administration environment.

Overall, the findings confirm that tax audits and investigations contribute positively to revenue collection performance. However, the study also shows that enforcement effectiveness in Ethiopia is still affected by institutional weaknesses, technological limitations, and administrative capacity problems. Therefore, improving revenue performance requires not only stronger enforcement activities but also modernization of tax administration systems, better staff training, improved transparency, and stronger trust between taxpayers and tax authorities.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the conclusions and recommendations from the research findings. It is based on the analysis in Chapter Four. Related with the research objectives. The chapter summarizes in details on tax audit practices, taxpayer compliance and revenue performance at the Addis Ababa Large Taxpayers Branch Office (AALTBO). It also have recommendations to strengthen tax administration and improve revenue.

5.2 Conclusions

The research concludes that choosing taxpayers to audit based on risk is important for tax administration. By targeting high-risk taxpayers AALTBO uses its limited resources efficiently and detects non-compliance better. Using IT systems, historical data and professional judgment improves audit selection.

Regular planning meetings, continuous risk assessments and proper allocation of audit staff contribute to audit effectiveness. This shows that strong planning is essential for improving efficiency and achieving better audit outcomes.

In addition the research confirms that taxpayers are more likely to comply with tax regulations if they know they will be audited. Frequent and visible audits make taxpayers think they are more likely to be caught if they don't comply. Consistent and fair penalties also encourage compliance.

The study further establishes that audit quality affects taxpayer trust and cooperation. Factors such as auditor competence, transparency and fairness contribute to how taxpayers perceive the tax system. When audits are professional and transparent taxpayers are more likely to trust the system and comply with tax obligations.

Improved audit coverage, quality and enforcement are associated with higher revenue collection. This confirms the role of tax audits in strengthening public tax revenue collection performance

.

5.3 Recommendations

Based on the study findings the following recommendations are proposed:

- ✓ **AALTBO strengthens its risk-based audit system** by regularly updating risk indicators and integrating advanced data analytics tools. This is achieved through improving taxpayer databases, linking systems with third-party data sources, and applying automated risk-scoring models to enhance taxpayer selection accuracy and audit efficiency.
- ✓ **Audit planning practices become institutionalized and continuously improved** through structured annual and quarterly audit plans. This is implemented by establishing standardized planning guidelines, strengthening coordination between audit units, and introducing continuous monitoring and performance feedback mechanisms.
- ✓ **Audit frequency and visibility of tax audits are enhanced** to improve taxpayer compliance and deterrence effects. This is implemented by increasing field audit coverage, prioritizing audits based on risk classification, and communicating enforcement outcomes to strengthen compliance awareness while ensuring efficient resource use.
- ✓ **Penalty enforcement mechanisms are applied consistently, fairly, and transparently.** This is achieved by developing clear penalty guidelines, standardizing enforcement procedures across cases, and strengthening internal oversight systems to ensure uniform application and improve taxpayer confidence.
- ✓ **Continuous professional development programs are provided for tax auditors.** This is achieved through regular in-service training, certification programs in tax law and forensic auditing, workshops on ethical standards, and capacity building in digital auditing and data analytics.
- ✓ **The tax administration invests in modern digital systems** to support audit and investigation processes. This is implemented through the development of integrated tax administration platforms, expansion of electronic filing systems, and improved data-sharing mechanisms among government institutions to enhance accuracy, efficiency, and enforcement outcomes.

5.4 Areas for Future Research

Future studies should explore the long-term impact of tax audits on compliance behavior. Further research could examine sector- differences in compliance behavior and identify industries prone to non-compliance. Moreover future research may investigate the role of taxpayer education and awareness programs in complementing audit effectiveness. Understanding how knowledge, perception and trust influence compliance could provide insights, for improving tax administration strategies.

REFERENCES

Allingham, M. G., & Sandmo, A. (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics*, 1(3–4), 323–338.

Alm, J. (2012). Measuring, explaining, and controlling tax evasion: Lessons from theory, experiments, and field studies. *International Tax and Public Finance*, 19(1), 54–77.

Alm, J., & McKee, M. (2006). Audit certainty, audit productivity, and taxpayer compliance. *National Tax Journal,* 59(4), 801–816.

Andreoni, J., Erard, B., & Feinstein, J. (1998). Tax compliance. *Journal of Economic Literature*, 36(2), 818–860.

Bird, R. M., & Zolt, E. M. (2008). Technology and taxation in developing countries. *National Tax Journal*, 61(4), 791–821.

Creswell, J. W. (2014). Research design: *Qualitative, quantitative, and mixed methods approaches* (4th ed.). Sage Publications.

Cochran, W. G. (1977). Sampling techniques (3rd ed.). Wiley.

Dubin, J. A. (2007). Criminal investigation enforcement activities and taxpayer noncompliance. Public Finance Review, 35(4), 500–529.

Federal Democratic Republic of Ethiopia. (2016). *Income tax proclamation No. 979/2016.* Addis Ababa, Ethiopia.

Feld, L. P., & Frey, B. S. (2007). Tax compliance as the result of a psychological tax contract. *Law & Policy,* 29(1), 102–120.

Fjeldstad, O. H., & Moore, M. (2008). Tax reform and state building in a globalized world. *International Political Science Review*, 29(3), 235–250.

Gebeyehu, M. (2019). Determinants of tax compliance behavior in Ethiopia. *Ethiopian Journal of Economics,* 28(1), 45–68.

Gujarati, D. N. (2004). *Basic econometrics* (4th ed.). McGraw-Hill.

International Monetary Fund. (2015). *Current challenges in revenue mobilization: Improving tax compliance.* International Monetary Fund.

Kirchler, E. (2007). *The economic psychology of tax behaviour.* Cambridge University Press.

Kirchler, E., Hoelzl, E., & Wahl, I. (2008). Enforced versus voluntary tax compliance: *The slippery slope framework. Journal of Economic Psychology*, 29(2), 210–225.

Kleven, H. J., Knudsen, M. B., Kreiner, C. T., Pedersen, S., & Saez, E. (2011). Unwilling or unable to cheat? Evidence from a tax audit *experiment. Econometrica,* 79(3), 651–692.

Kothari, C. R. (2004). *Research methodology: Methods and techniques* (2nd ed.). New Age International Publishers..

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size. Educational and Psychological Measurement, 30(3), 607–610.

Lederman, L. (2003). The interplay between norms and enforcement in tax compliance. *Ohio State Law Journal*, 64(6), 1453–1514.

Mascagni, G., Santoro, F., & Mukama, D. (2019). Teach to comply? Evidence from a taxpayer education programme in Rwanda. International Tax and Public Finance, 26(1), 29–55.

Moore, M. (2014). Revenue reform and state building in developing countries. *World Development,* 60, 99–112.

Organisation for Economic Co-operation and Development (OECD). (2017). *Tax administration 2017: Comparative information on OECD and other advanced and emerging economies*. OECD Publishing.

Organisation for Economic Co-operation and Development (OECD). (2021). *Tax administration 2021: Comparative information on OECD and other advanced and emerging economies*. OECD Publishing.

Slemrod, J., & Yitzhaki, S. (2002). Tax avoidance, evasion, and administration. In A. J. Auerbach & M. Feldstein (Eds.), *Handbook of public economics* (Vol. 3, pp. 1423–1470). Elsevier.

Tadesse, B., & Goitom, A. (2014). Tax compliance in Ethiopia: Evidence from small taxpayers. *Journal of Economics and Sustainable Development,* 5(15), 23–31.

Torgler, B. (2007). *Tax compliance and tax morale: A theoretical and empirical analysis.* Edward Elgar Publishing.

World Bank. (2021). Ethiopia public finance review: *Enhancing domestic resource mobilization.* World Bank Publications.

Yamane, T. (1967). *Statistics: An introductory analysis (2nd ed.)*. Harper & Row.

Zandi, G., & Rabbi, F. (2015). *Determinants of tax compliance behavior*. *International Journal of Economics and Finance, 7*(9), 207–218.