

**Addis Ababa University**  
**School of Graduate Studies**

**Tax Audit Practice in Ethiopia: The Case of the  
Federal Government**

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# **Tax Audit Practice in Ethiopia: The Case of the Federal Government**

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MSc Degree in Accounting and Finance**

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**Statement of certification**

This is to certify that Getaneh Mihret has carried out a thesis on the topic entitled "Tax Audit Practice in Ethiopia: The case of the Federal Government" under my supervision. In my opinion, this thesis is suitable for submission in partial fulfillment of the requirement for the award of the MSc Degree in Accounting and Finance.

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## Statement of declaration

I have carried out independently a thesis on “Tax Audit practice in Ethiopia: The case of the Federal government” in partial fulfillment of the requirements of the MSc Degree in Accounting and Finance with the constructive guidance and support of the research advisor.

This thesis is my own work that has not been presented for any degree or diploma program in this and any other institution, and that all source of materials used for the thesis have been duly acknowledged.

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 20/06/2011

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## *Abstract*

*This study examines tax audit practice in Ethiopia (the case of federal government), and investigates key problems in tax audit operation regarding the appropriateness of audit type used, audit rate, aptness of audit case selection methods and audit examination techniques used, and the experience and capability of audit staff resources.*

*The study adopts mixed method approach in order to achieve the research objectives and to answer research questions. Specifically, the techniques used in the study include survey with tax auditors and investigators, in-depth interviews with tax officials and taxpayers, and documentary analysis.*

*With these research methods, the results of the study reveal that tax audit program remains undeveloped with slight range of tax audit activities performed targeting aptly specific risks. The tax audit program is a toddler tool in improving voluntary compliance and increasing future revenue performance through educating and helping taxpayers to understand their tax obligations. The study also shows low audit coverage, the absence of compliance risk-based audit case selection strategy, scarcity of audit resources, tax auditors in particular, and absence of proficient and experienced tax auditors. In the end, the study forwards the possible measures to be taken by the Ethiopian Revenue and Customs Authority to mitigate problems in tax audit operation.*

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### **List of abbreviations**

AACCSA	Addis Ababa Chamber of Commerce and Sectoral Associations
CA	Chartered Accountant
DOR	Oregon Department of Revenue
EC	European Commission
ECA	Ethiopian Customs Authority
ECC	Ethiopian Chamber of Commerce
EFIRA	Ethiopian Federal Inland Revenue Authority
ERCA	Ethiopian Revenue and Customs Authority
EU	European Union
GDP	Gross Domestic product
IRS	Internal Revenue Service
IT	Information Technology
MoR	Ministry of Finance
NBR	National Board of Revenue
OECD	Organization for Economic Co-operation and Development
RAP	Repetitive Audit Procedures
SMEs	Small and Medium Enterprises
UNDP	United Nations Development Program
USA	United States of America
VAT	Value Added Tax
WB	World Bank

Taxation may not sound exciting, but it is central to the development of nations. Currently, taxation has become part and parcel of all economic activities although it fails to meet its intended objectives in numerous developing countries. Developing countries are in difficulty to collect taxes efficiently, because of many serious problems they face as to tax design and administration. They are also in trouble to provide basic social services from taxation (Damme et al. 2008). To reap the proceeds from taxation, developing countries should give great attention to the policy and administration of taxation. Good tax system, apart from generating revenue, minimizes distortion of resource allocation and simplifies its administration (World Trade Organization 2003).

Tax administration is a complex and dynamic responsibility. On a regular basis, leaders are faced with new issues, conflicting priorities, taxpayer compliance and emerging commitments (Thomson 2008). As Berhan and Jenkins (2005) noted, governments of developing countries are eager to create modern tax systems although saddled with weak tax administrations, and sometimes have experimented with tax administration mechanisms that inflict higher compliance costs on the private sector.

In order to make the multipart tax system relatively successful, it should be approached strategically and realistically in order to maximize taxpayer participation, create an efficient filing and audit administration, and encourage private sector growth. Tax involves every aspects of income generating activities and consumption items, and requires not only administrative capacity of revenue authority but also the involvement of private sectors through proper accounting and reporting (Tadros 2009).

However, the task of creating a well educated and highly compliant taxpaying citizen supported by an efficient and responsive set of tax administration requires considerable resources and time (Highfield and Baer 2000). Despite the fact that people need to pay taxes based on grounds of vertical and horizontal equities, it is not always the case that tax systems are graspable and transparent for taxpayers especially for less literate business operators. Since the business owners do not have simplified access to and elucidation on information of the tax laws, they lack awareness on tax rules and

regulations. Later this lack of understanding shocks the practicability of the tax regulations (ECC 2005).

Furthermore, any tax in a tax system is vulnerable for evasion and fraud, which has become the concern of many countries. For instance, Carousel Fraud and credit and/or refund abuse in European Union (EU) member countries (Keen and Smith 2007) and abuse of tax credit in Bulgaria (Pashev 2006) and the offence of non-issuance of value added tax (VAT) invoices in Ethiopia (Alemu and Deresse 2009) can be mentioned.

Tax fraud is an intentional reduction of the tax liability stemming from real transactions. As Baurer (2005) noted, it is a deliberate misrepresenting or concealing the true state of their affairs to the tax authorities to reduce their tax liability. It typically includes underreporting profits and turnover, overstating deductions, underreporting employee wages, failure to register or file tax declarations, hiding of taxable receipts coming from the production and distribution of real products and services, overvaluing of VAT spent on inputs and abuse of tax return through fictitious transactions and trades.

Thus, tax audit is needed to increase tax revenue and taxpayer compliance. Tax audit is a detailed exploration into the activities of a taxpayer to determine whether he/she has been correctly declaring the tax liabilities (OECD 2006a). The inspection of the taxpayers' activities indirectly drives voluntary tax compliance, and directly generates additional tax revenue collections. As a result, both (compliance by the taxpayers and the additional tax revenue collected) help tax agencies to reduce the tax gap between the amount due and collected (Barreca and Ramachandran 2004).

However, in many countries (especially developing and transitional countries), audit performance is reported as a weak aspect of tax administration, irrespective of whether other aspects are working well (Ebrill et al. 2001). Several developing countries do not yet have effective audit programs due to; insufficient numbers of the required highly skilled and appropriately paid audit practitioners, absence of a sound institutional audit practice, illegal cooperation between taxpayers and auditors, lack of clear political support for the tax administration, and the deficiency of an appropriate legal and

judicial environment. Additionally, these countries have a tendency to offset weak tax audit by adopting complex procedures, such as increased filing requirements and massive cross-checking. This, in turn, might result administrative difficulties and increase the compliance cost of taxpayers (Hellenrstein 2005).

On the other hand, audit is not a very welcome procedure for both the taxpayers and the economy. Conducting audits involves costs to the tax department as well as to the taxpayer. Tax administration agencies should, therefore, use their scant resources very judiciously to achieve maximal taxpayer compliance, and minimal intrusion and costs. Among others, having effective tax audit program is a key success factor for cost minimization and detection of tax evasion and fraud as well as proactively preventing tax frauds (Gupta and Nagadevara undated).

The objective of this thesis is, therefore, to review and examine the tax audit practice of Ethiopia, the case of the federal government, with respect to the type of audit performed and its aptness, case selection methods used, audit techniques applied, the frequency of audit performed, and education level and experience of auditors.

The remaining discussion in this chapter is structured in eight sections. The first section deals with the background of the study. The statement of the problem that motivates the researcher to conduct this study is the second section. Thirdly, the general objectives of the study stated followed by research questions in section four. Subsequently, the fifth section deals with methods adopted while the sixth section presents the significance of the study. The seventh and eighth sections deal with the scope and limitations, and structure of the study.

### **1.1. Background**

The government of Ethiopia has several options to finance its public expenditures and pursue its fiscal policy. These options include imposing of taxes on businesses and persons, and non-tax revenues such as service fees, money prints, loans (both domestic and foreign institutions), property and investment income, privatization of public enterprises, and domestic and foreign grants.

Among others, tax along with customs collections is an important source of revenue for every government, and is a heart to a country's well being (Damme et al. 2008). In Ethiopia, however, total tax revenue performance has been relatively poor that accounts an average of 10.9 percent of gross domestic product (GDP) during 1990-94 and 12.9 percent of GDP during 2000-06 (McKinley and Kyrili 2009).

The proper amount of tax must be collected on a timely manner for successfully improving and maintaining steady economic progress of a nation. To do this, the enforcement powers of the tax administration, including tax audit, must be applied judiciously and in an evenhanded fashion (Baurer 2005).

A tax audit is an examination of whether a taxpayer has correctly reported its tax liability and fulfilled other obligations. It is often more detailed and extensive than other types of examination such as general desk checks, compliance visits or document matching programs (OECD 2006a). As Biber (2010) noted, the role of an audit program in a modern tax administration must extend beyond merely verifying a taxpayers' reported obligations and detection of discrepancies between a taxpayers' declaration and supporting documentation.

Tax audit may increase tax revenue in two ways: directly through assessment of additional taxes, and indirectly by improving taxpayer compliance with the tax laws and regulations (Barreca and Ramachandran 2004).

## **1.2. Statement of the problems**

Obviously, a properly designed and administered taxation system is very vital in generating revenue as well as increasing the tax base to the government of developed, developing, and transitional economies. As Bird (2008) noted, it is unquestionable to ensure that the revenue collected from tax should be raised in efficient and effective manner although it is difficult without fear or favor in countries that are politically fragile.

However, the tax base of developing countries adversely affected by administration problems including poorly conceived tax policies and lack of certainty regarding future

policy changes. In addition, tax administrations can also create problems for the tax payers as they impose onerous reporting and record keeping requirements, perform excessive inspections and audits, fail to deal with their corrupt employees, and failure to provide transparency in the operations of tax administration (Baurer 2005).

In reality, under inadequate tax administration including insufficient and ineffective audit program, the potential amount of tax revenue in developing and transitional countries has not been collected in an efficient and equitable manner (Edmiston and Bird 2004). It is unmoving under a number of challenges regarding to its operation and administration that are not yet resolved. Further, weak tax administration may make the tax system unfair in that honest taxpayers would bear heavier and disproportional burden. It, in turn, may have impact on the efficiency of tax operation, and also may encourage businesses to work in the illegal economy.

In Ethiopia, taxation has been used for the purpose of raising as much revenue as possible to meet the ever-expanding public expenditure needs of the government. It is also a mechanism for reduction of inequalities in income distribution, promotion of capital investment and trade, encouraging and/or discouraging certain industries depending on how suitable for country's economic development program.

However, it is not often the case to collect the potential tax revenue in the country due to lack of awareness of taxpayers as well as paucity of tax agencies' cooperation with the business community. Tax systems are usually elaborated without proper discussion with the business community. In addition, the business owners do not have easy access to and clarification on information of the tax laws. The tax agencies do not also provide advising services. As a result, taxpayers misinterpret tax rules and regulations. Moreover, they lack awareness regarding the tax type to be imposed on their doings, purpose and operation of desk audit, goods and services exempted from tax, negative upshot of contraband trade, and reporting and filing requirements of the tax law.

Furthermore, total tax revenue performance has been relatively poor that accounts an average of 10.9 percent of GDP during 1990-94 and 12.9 percent of GDP during 2000-06 (McKinley and Kyrili 2009). Ethiopia still mobilizes not more than 14 percent of

GDP in tax revenues. This may be as a result of evasion or fraud by the taxpayers which includes; underreporting profits and turnover, underreporting employee wages, failure to register or file tax declarations, dearth of willingness to operate in accordance with tax laws, non-issuance of VAT invoices for buyers, and barter arrangements hidden from tax authorities. For instance, according to Alemu and Deresse (2009), more than forty businesses (shops) at Addis Ababa, mainly in Merkato and Piazza areas, have been shut down after the intelligence officers of Ethiopian Revenue and Customs Authority (ERCA) allegedly caught them red-handed violating the Ethiopian VAT law. The offence was non-issuance of VAT invoices for the buyer in a belief that inclusion of VAT in the price would push the buyers to go away. At this time, over one hundred individuals who were operating in those businesses were arrested.

To mitigate such and so fraud problems, therefore, a successful audit program should be implemented which is capable to investigate, detect and prevent loss of tax revenue. To the greatest possible extent, tax systems should be supported by clear and straightforward laws and procedures that facilitate revenue collection, develop taxpayers' awareness, and minimize taxpayers' effort and compliance costs. The administration should be provided with appropriate enforcement tools, including conduct of effective audit.

Hence, to create an effective and fair tax system, it is vital to address the administration problems that affect it. However, this study is limited to the issues regarding tax audit.

### **1.3. Objective of the study**

The intent of this study is to investigate tax audit operation by the case of the federal government in Ethiopian tax system. Thus, the study accomplished the following broad objectives in line with the problems stated in the preceding section:

- Investigating the performance of tax audit program by ERCA in the federal government of Ethiopia, and
- Identifying the main problems of the tax audit program performed that affects tax revenue collection and taxpayers' voluntary compliance in the federal government of Ethiopian tax system.

#### 1.4. Research questions

In line with these broad objective, the researcher developed one central question and six specific research questions.

*Central question: How is the tax audit practice in Ethiopia in respect of the type of audit performed and its suitability, appropriate case selection methods used, audit techniques applied, the frequency or rate of audit performed, and the experience and quality of audit staff resources?*

Based on this central question, the following six specific research questions (RQ) are stated:

- RQ1. Does ERCA perform appropriate range of tax audit types targeting noncompliant taxpayers?*
- RQ2. Does ERCA have adequate tax audit resources, tax audit staff in particular, in relation to international standards?*
- RQ3. What is the degree of the frequency and/or rate of tax audit performed?*
- RQ4. Does audit case selection methods and audit techniques used appropriate?*
- RQ5. What looks like the experience and capability of auditors participated in audit practices as required by international standards?*
- RQ6. What are the main weakness and strengths of the tax audit program performed as compared to international standards?*

#### 1.5. Methods adopted

The study adopted mixed research design in order to achieve the stated research objective and to answer research questions. Specifically, the study used quantitative survey and qualitative in-depth interview and documentary analysis. The survey was conducted with tax auditors and investigators while the in-depth interviews were conducted with tax officials in ERCA and taxpayers. In addition, documentary analysis was made using annual reports of ERCA, tax audit policies, and other documents that were relevant for the conduct of the study.

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

The primary use of this research is to the ERCA. The authority might be able to see its level and performance of tax audit activities, and learn some lessons and build some corrective measures for the weaknesses based on recommendations to be forwarded. Further, the study has paramount use for different stakeholders who are interested for such as government agencies and business associations.

Finally, the study might have invaluable importance for future researchers who need to conduct a study in this and related fields.

### **1.7. Scope and Limitations of the Study**

The study focused on the audit part of tax administration of Ethiopia in the case of the federal government excluding regional governments due to time and resource constraints. The study has examined tax audit practice, and focused on the type of tax audit performed, the effectiveness of audit program in terms of improving voluntary compliance and tax revenue performance, audit coverage achieved, audit case selection methods used, examination techniques applied, and availability of audit resources, proficient and experienced tax auditors in particular.

Thus, the study is not without limitations. The major limitation is absence of incorporating the audit practice of regional governments. In addition, the study has not incorporated some aspects of tax audit program. Specifically, the study has not examined the issues such as formal statements of taxpayers' rights and obligations in the audit context, audit outcome measures, and use of indirect methods to verify income of taxpayers.

### **1.8. Structure of the Study**

The final report of this study is presented in five chapters. The first chapter deals with introduction including background of the study, statement of the problems, objectives of the study, research questions, methods adopted, significance of the study, and scope and limitation of the study. The related literature have been reviewed and presented in the second chapter. In the third chapter, the research design including the methodology

## Chapter 1-Introduction

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adopted and techniques used in data collection and analysis is offered. Subsequently, the fourth chapter discusses the results and analysis of the findings of the study. Finally, the fifth chapter presents the conclusions and recommendations based on findings.

## Chapter 2 - Literature review

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In the previous chapter, the main problems and objectives to be addressed in the study have been stated. This chapter presents the review of related literature.

The chapter is organized in three sections. The first section reviews theoretical studies on tax audit in a tax administration system while the second section presents the empirical evidence on tax audits and related issues. The final section provides concluding remarks on the review of the literature and identifies the knowledge gap that has been addressed in the study.

### 2.1. Theoretical studies

A tax audit is an examination of whether a taxpayer has correctly reported its tax liability and fulfilled other obligations. It is often more detailed and extensive than other types of examination such as general desk checks, compliance visits or document matching programs (OECD 2006a). As Biber (2010) noted, the role of an audit program in a modern tax administration must extend beyond merely verifying a taxpayer's reported obligations and detection of discrepancies between a taxpayer's declaration and supporting documentation.

Most taxpayers report their tax liabilities more accurately if they believe that the tax administration has the capacity to detect any unreported liabilities and that heavy penalty may be applied when they are detected (Biber 2010). Thus, tax audit results in increased tax revenue in two ways: (1) directly through assessment of additional taxes; and (2) indirectly by discouraging underreporting of liabilities by all taxpayers. Further, Barreca and Ramachandran (2004) noted that the purpose of tax audit is to check the evasion of tax and ensure compliance in accordance with the laws and regulations.

The subsequent subsections discuss thoroughly about tax audit in a tax administration system that includes characteristics of effective audit program, types of tax audit to be performed, audit case selection methods, examination techniques to be applied for tax audit, and characteristics and required capabilities of effective tax auditors.

### 2.1.1. Types of tax audit

Tax audits can vary in their scope and the level of intensity to which they are performed. The nature of audits conducted should reflect the risks to be addressed and desired audit coverage of the taxpayer population. Too many narrowly focused spot (issue) audit provides a high level of audit coverage but at the expense of audit quality, tax revenue, and missed opportunities to properly detect taxpayers' noncompliance. On the other hand, audit activities with an excessive number of in-depth examinations reduce the numbers of audits that might be conducted, possibly leading also to less overall deterrent effect (OECD 2006a).

Therefore, it is inappropriate to carry out all audits on the basis of comprehensive examination of documentation across all tax obligations and all periods that could be open for amendment. Such approach waste resources targeting compliant taxpayers and limit the number of audits that can be undertaken. Therefore, revenue bodies should aim to achieve a balanced program of audits that considers audit coverage, audit quality, and overall deterrent considerations (Biber 2010).

As Tait (1988) indicated, there are two main types of VAT audit: field audit and office audit. A field audit, which is conducted at the taxpayer's place of business, involves third party contacts with suppliers or other government entities to obtain information to validate the accuracy of books and records. However, office audit is generally limited to the checking of returns for arithmetical correctness and general conformity with legal requirements. It includes the verifications of exemptions, claims for credit, and checking for self-consumption.

As Ebrill et al. (2001), Grandcolas (2005), Harrison and Krelove (2005), OECD (2006a) and Biber (2010) noted, tax audit program in a function based administration includes desk audit or verification, field audit, registration check, advisory audit, record keeping audit, refund audit, issue-oriented audit, comprehensive or full audit and fraud investigation. The following briefly reviews these tax audit types.

**Desk audit or verification:** This type of audit usually carried out annually and primarily based on: (1) a review of income tax and VAT returns, or basic ratios

## Chapter 2 - Literature review

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comparing with previous periods or other taxpayers in similar industries, and (2) the crosschecking of information included in the taxpayer files. It involves basic checks conducted at the tax office when the auditor is confident that all necessary information can be ascertained through in-office examination. Information technology (IT) systems should provide strong support for these verifications.

**Field Audit:** It is a detailed examination of taxpayers' books and records to determine whether the correct amounts were reported on the tax returns. The auditor may also obtain information from other sources such as banks, creditors and suppliers, to confirm items on returns. A field audit usually includes one or more of the following taxes: income, franchise, sales and use, withholding, and excise taxes. The audit is conducted at taxpayers' place of business, home, or at the office of their accountant, attorney, or other person who may represent them. The auditor tries to select the place that is most appropriate under the circumstances and most convenient for them.

**Registration check:** This takes the form of unannounced visits to taxpayer's premises for new enterprises (mainly small and medium sized) to detect businesses operating outside the tax system. As Ebrill et al. (2001) stated, during this visit, the tax officer ensures that the taxpayer: (1) has a basic understanding of their obligations; (2) keeps appropriate records (book keeping review should be mandatory in case of voluntary compliance when the turnover of the taxpayer is below the registration threshold); and (3) issues proper invoices when required by law. This type of visit is a quick check on businesses to establish that they are correctly registered. It should not take more than half a day.

**Advisory audits:** It involves the auditor's visit to newly established businesses. They advise them regarding tax types, filing of returns, payment of amounts due, record keeping to be maintained, refund claims, risk of audit and sanctions of noncompliance. These visits are very appropriate when introducing new tax laws.

**Record keeping audit:** It is unannounced visits to the taxpayers' business premises to check whether the appropriate records are kept and VAT invoices are issued. The visit

## Chapter 2 - Literature review

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points out the obligations of the taxpayer regarding the keeping of records and followed up with penalties if the taxpayer continues to disregard record keeping requirements.

**Refund audit:** A pre-refund audit should be undertaken to verify the taxpayer's entitlement to a refund prior to processing a first refund claim particularly for new registrants. It is also carried out where the refund claim varies significantly from established patterns and trends. Audits of further claims should be carried out selectively. Refund audit should focus only on the period covered by the claim.

**Issue-oriented audit:** It should be directed at verifying items for which errors have been detected in the returns (atypical ratios, gross revenues, comparison of gross sales to imports). It should focus on a single tax type and covers no more than one or two reporting periods. Single-issue audits are confined to one item of potential noncompliance that may be apparent from examination of a taxpayer's return. Given their narrow scope, single-issue audits typically take less time to conduct and can be used to review large numbers of taxpayers involved in similar schemes to conceal noncompliance.

**Comprehensive or full audit:** All cases where serious underreporting or evasion has been detected under any of other audits should be forwarded to a unit responsible for undertaking comprehensive audits of all tax liabilities. It typically entails a comprehensive examination of all information relevant to the calculation of a taxpayer's tax liability for a given period. This audit may cover all tax obligations over a number of tax periods, or extended to several years up to the limit provided for in the law. The objective is to determine the correct tax liability for a tax return as a whole. As this audit is usually time consuming and costly to undertake, it should only be applied to those taxpayers if there is an indication of under reporting that may impact across taxes. It requires considerable resources and reduces the rate coverage of taxpayers that could otherwise be achieved by a more varied mix of audit types.

**Fraud investigation:** It is criminal investigation that arises where the most serious cases of noncompliance that have criminal implication- fraud, evasion, and criminal activity- are detected. Such investigation requires special skill including meeting

## Chapter 2 - Literature review

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evidentiary requirements, seizure of evidences or records, testimony from key witnesses and preparing briefs for courts. Hence, it should be undertaken in accordance with criminal procedure laws. As OECD (2004a) stated, tax authorities should maintain a dedicated organizational unit responsible for the handling of serious cases of tax fraud or evasion.

### 2.1.2. The effective tax audit program

Tax audit is one of the longest standing and accepted compliance strategies in tax administration. The tax audit program provides visibility to the compliance and enforcement arm of the tax administration (Thomson 2008). The auditing and spot-checking of records, coupled with a system of adequate penalties for detected cases of fraud, is the universal method for tax control and the prevention of tax evasion. Tax evasion can be brought to light only by a means of an effective audit program (Tait 1988). Tax audit also helps tax agencies to achieve revenue objectives that ensure the fiscal health of the country and individual states. It derives voluntary compliance and generates additional tax collections, both of which help tax agencies to reduce the tax gap between the taxes due and the amount collected (Barreca and Ramachandran 2004).

Furthermore, a well structured tax audit program can provide valuable support in gathering information on the health of the tax system (including patterns of taxpayers' compliance behavior), educating taxpayers (improving future compliance), and identifying areas of the tax law that require clarification or addressing deficiencies in the law (OECD 2006a). Accurate and timely self-assessment and compliance with tax by taxpayers is achieved only through highly visible and effective audit programs, including the consistent application of strong sanctions where noncompliance is encountered. Taxpayers must feel that there is a good chance that unreported liabilities and other forms of non-compliance have been detected during an audit (Biber 2010).

When an audit program is ineffective, it may result in the deterioration of tax compliance and a loss of credibility of the tax administration. Taxpayers may not be deterred from minimizing their tax liabilities if they believe that there is a little chance of being audited (Ebrill et al. 2001). Ebrill et al. (2001) noted that there are several

## Chapter 2 - Literature review

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reasons for ineffective audit programs that are evident in varying degrees in several countries. First, audit typically requires higher level of skills than those needed for most other tax administration tasks, and such skills are sometimes in short supply. Second, the possibility of collusion between taxpayers and tax officials is significant during an audit. Moreover, auditor's errors may damage business activity that makes governments reluctant to support comprehensive audit programs.

The development of an effective tax audit program typically addresses coverage (percentage of taxpayers to be audited), selection of audit cases, methods (types of audits to be performed, duration of audit, approaches taken by auditors), staffing and training (staff resources needed to implement the audit program and the training provided for them), and monitoring activities (Ebrill et al. 2001).

A good audit program employs strategies to optimize both the direct and the deterrent effects of audits. The first can be achieved by auditing a higher percentage of the large taxpayers (Biber 2010). Although the frequency of audit is a contentious issue, the judgment is always a delicate balance between the treat of audit to check the temptation to evade and the cost. Where the tax system is fairly well established, audits of 15 percent to 20 percent of registered traders a year are sufficient. However, it is not only the crude number of audits that is the most useful measure of need (Tait 1988). In the case of VAT, Ebrill et al. (2001) stated that effective VAT audit program should cover a 25 to 30 percent of the taxpayers each year. In addition, VAT audit need to be closely coordinated with other tax liabilities especially income tax. Since most countries have integrated VAT and income tax administrations, the development of an effective VAT audit program significantly improves income tax compliance.

The deterrent effect is best achieved by extending the program to as many taxpayers as possible at all levels (Tait 1988). Through adequate audit strategy, tax administrations must foster, and not simply enforce, tax compliance. Tax compliance can be facilitated through improving services to taxpayers by providing them with clear instructions, understandable forms, and assistance and information as necessary. Monitoring compliance requires information systems as well as appropriate procedures to detect

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non-compliance (EC 2006). Voluntary compliance is generally enhanced by increasing the number of taxpayers audited than by auditing fewer taxpayers with large tax potential. Perversely, revenue is increased by concentrating on those taxpayers where a large amount of revenue is at risk. But there should be a careful planning when there is a widespread belief that most tax returns are underreported, otherwise there may be an over selection of returns for audit, with the result that the inventory of work in process may increase to unmanageable proportions and make an orderly approach to an annual audit work plan impossible (Tait 1988).

Thus, the actual number of audits planned should depend on the audit resources available to the program. The international standards as to the total staff assigned to audit should be close to 40 percent of the total staff of the tax administrations (Biber 2010). Further, audit capacities of field offices are determined by calculating the number of returns that can be audited. The calculation made using estimates of the number of returns each tax auditor can reasonably be expected to complete during a given audit period. There should be an over selection of 25 percent to 30 percent of audit capacity (Tait 1988).

With proper audit planning, strong supervision, and effective use of the review staff as a training vehicle, it is not unreasonable to expect an office auditor to complete an average of 10 to 20 cases a month, and for a field auditor (exclusive of auditors dealing with controlled cases) to complete an average of 4 to 6 cases a month. Allocation of about 200 cases a year should be reasonable for experienced junior auditors, who should be eligible for advancement to senior auditor after four years of satisfactory service in that grade (Tait 1988).

Therefore, planning an adequate audit strategy is a key success factor in post-fraud detection (where audits are intended to detect tax evasion and fraudulent claims) as well as proactively preventing tax frauds and evasions (Gupta and Nagadevara undated). Biber (2010) noted that effective planning is required to ensure that the audit program is adequately developed to: (1) focus on and address the most significant risks; (2) target

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noncompliant taxpayers and not harass compliant taxpayers; (3) make optimal use of limited resources, and (4) influence compliance across the broader taxpayer community.

As Hellenstein (2005) and, Harrison and Krellove (2005) noted, the most effective VAT audit programs are those developed within an overall risk-management framework, and marked by the following design features and principles:

- A broad coverage of taxpayer groups (by size and sector) and compliance issues;
- Audit resources spread across all elements of the program. This ensures that a disproportionate share is not absorbed in verifying refund claims prior to payment;
- Pre-refund audits limited to only high-risk cases. Lower-risk claims are subjected to selective post-refund audits;
- VAT audits that are primarily short and limited to one or two tax periods;
- Audits of accounting systems rather than individual transaction checking, especially with large taxpayers;
- VAT audit program should have close coordination with audit programs of other taxes, particularly income tax;
- Consistent application of appropriate penalties for noncompliance; and
- Investigation of cases involving serious fraud with a view to prosecution under the criminal code.

According to OECD (2006a), audit plan provides a path to follow to ensure that the audit is performed effectively and efficiently. However, it should not be treated as set in stone once created. Case planning must be a flexible tool and the original audit plan should be reviewed and updated regularly during the course of the audit. Thus, characteristics of effective audit plans are:

- Flexibility to allow for unusual audit issues, adequacy of internal controls and the adequacy of books and records;
- Alignment with any quality assurance framework; and
- A clear focus, with potential areas of concern noted during the preliminary review and audit procedures selected that can address the concerns identified.

### 2.1.3. Audit case selection methods

The primary goal of revenue authorities is to manage and improve overall compliance with the tax laws, and in the process sustain confidence in the tax system and its administration. Tax audit is a sole treatment for compliance risk available to administrations that allows exercising effective sanctions (imprisonment and penalties and/or interest). It acts as a public sanction making the extent of the administration's enforcement powers visible within the community and encouraging others to comply. Compliance risk is the failure to comply with the tax law by taxpayers whether due to their ignorance, carelessness, recklessness, deliberate evasion, or weaknesses in tax administration itself, and have been addressed only by enforcement through an audit-based approach (OECD 2004a).

However, tax administrations do not have sufficient resources to perform thorough on-site audits of the activities of all taxpayers or comprehensive crosschecking of all invoices or transactions. Tax administration, with limited resources and relatively large numbers of taxpayers to administer (especially in the small and medium enterprises), must design the audit program to deploy audit resources in a risk-based way with a view to achieve the most possible compliance and revenue objective (Thomson 2008 and OECD 2004a).

Accordingly, the first key to successful audit is the case selection methodology. It is critical to select audit candidates consistent with program objectives. Whatever the audit objectives have, the ability to narrow the pasture of potential audit candidates is necessary to achieve program objectives and optimal use of audit resources. Regardless of how automated and efficient the audit process, audit effectiveness would not be realized under the selection of inappropriate audit candidates (Milack undated). Hence, managing an effective auditing program involves decisions as to the selection of best audit case strategy or combination of strategies. The selection strategies may vary by tax type. It may be based on either reported tax amounts or the industry type (Barreca and Ramachandran 2004).

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Case selection through the use of risk management techniques is necessary to ensure that the audit program is fully in line with the administration's compliance strategy, and to set up the necessary audit trails to show why cases have, and have not, been made the subject of an audit (OECD 2006a). Ebrill et al. (2001) noted that the most effective systems utilize taxpayer profiles and criteria to identify the highest risks for the revenue. These systems are frequently based on the crosschecking of internal information.

In tax administration, a risk is anything that can negatively affect the administration's ability to achieve its compliance and revenue objectives. Risk management is a formalized and systematic approach, based on sound analysis, designed to set the best course of action under the uncertainty of risk. The technique involves identifying, assessing, understanding, and acting on risks that impinge on the organization's ability to achieve its objectives (Thomson 2008). Risk management starts with risk identification, which includes a rough estimation of the risk related tax gap, the number of taxpayers involved and possible relations with other risk areas (EC 2006).

The tax gap (the potential tax yield minus the actual tax revenues) reflects the financial extent of the risk field. Although the determination of the tax gap is not easy, a rough estimation is usually done. The calculated gap can be further broken down into areas such as barely legitimate tax avoidance, fraud, serious noncompliance, error, and debt. This provides additional information on areas of risks that should be addressed. Strictly theoretical, the sum of the aforementioned individual risks identified must be equal to the entire tax gap (EC 2006 and EC 2010).

According to EC (2010) and Thomson (2008), compliance risk reduces tax yield, and can be categorized as register risk, filing risk, payment risk, and declaration risk. This classification makes tax administration in a stronger position to determine the appropriate treatment technique.

Register risk includes reduction of tax yield because ineligible taxpayers for tax registration become registered and/or remain registered when eligibility ceases, fail to register by those that fulfill registration requirements, and registration with erroneous



information. Payment risk and filing risk are closely related but they should be analyzed separately since the treatments may vary. Payment risk is non-payment of amounts due on tax returns and assessments whereas filing risk is failure of taxpayers to file their returns by the due date. In order to provide the correct preventive and corrective treatments there is a need to be able to target those taxpayers likely to file their returns late, or not at all. Finally, declaration risk is a risk that the amounts shown on the tax return are incorrect by error or deliberate act, and many tax administrations traditionally concentrated on this risk area with the intention of determining which cases should be selected for conducting audit activity (EC 2006 and EC 2010).

In addition to compliance risk identification, in an efficient audit management structure, there are pre-audit case management factors that need to be recognized to assure the taxpayers in that the burden of audits not fall disproportionately on any segment. These include inappropriate auditors' contact with taxpayers, audit cycle or enquiry window, materiality, and collectability.

**Inappropriate auditors:** It is useful to have regulations to preclude individual auditors from repeatedly auditing the same taxpayer, and to require an auditor to exclude itself from taking up an audit where they are acquainted with the taxpayer selected for audit. Such rules protect both auditor and the customer from the danger of such inappropriate contacts. The policy of repetitive audit procedures (RAP) may be used which holds that if a taxpayer is audited for non-business issues only (similar to an audit aspect) for the current year and the audit results in no additional taxes owed, the taxpayer is granted relief from audit for the next two years if no substantial changes take place. The intent is to eliminate non-productive and time-consuming audits for tax authorities, and to reduce the hardship associated with repetitive audits for fully compliant taxpayers (OECD 2006a).

**Audit cycle or enquiry window:** Regulations may be established to require that all audits must be started or completed within a predetermined timeframe. However, it gives certainty to taxpayers that after some period of time the danger of audit may pass.

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Thus, it needs to be supported by powers of discovery to overturn the enquiry window where substantial tax fraud is found (OECD 2006a).

**Materiality:** Although a noncompliant high-risk item may be selected for audit, the materiality of the projected tax consequence versus the auditor's labor cost of pursuing the high-risk item may override the non-compliance aspect (OECD 2006a).

**Collectability:** The collectability concept implies that a taxpayer's inability to pay a future proposed tax assessment would be sufficient basis for not conducting the audit. Those administrations that do not use this concept report that collectability is a secondary objective and should not diminish the primary objective of a correct assessment of tax liability. In addition, the limitation of collectability considerations to the current tax period may not provide a complete financial picture for the taxpayer as it excludes consideration of future payment potential (OECD 2006a).

Apart from the above pre-audit case management factors, there are two key elements necessary in effective translation of strategic priorities for risk treatments in to individual case selections for action; (1) accurate and timely data and information relevant to the compliance risks to be addressed, and (2) knowledge management and analysis techniques to analyze the base data and facilitate feedback in to the compliance risk management process. Here, the main requirement is access to the data contained within individual tax returns. The essential information to case selection comes from previous case histories of the taxpayer concerned, information from third parties which can confirm the details shown on the tax return, and more generic taxpayer (business sector profile) (OECD 2004a).

Once required data accessed, some form of case analysis methods should be used to analyze the base data for selecting cases. Audit selection methods range from simple random selection to more complex rule-based selection, sophisticated statistical and data mining techniques. Selection strategies can vary by tax type, and even within a single type (Barreca and Ramachandran 2004).

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The common case selection methods include random selection of cases, screening or case review by auditors, rule base and automated risk scoring systems, and data mining and statistical analysis.

### **Random selection**

It has no bias in audit case selection, and useful to fight corruption. This method is perceived as fair by taxpayers. However, it clearly not focused on highest risks, may have high opportunity cost if used as sole case selection method (Vellutini 2010). As Gupta (undated) noted, simple random selection has a major drawback in that both honest and dishonest taxpayers are equally treated since probability selection give equal chance of being selected for both. However, the criteria or information based selection system too has a drawback in that it presupposes certain clue of noncompliance, which may actually be sign of other things such as change in economic condition in that particular trade.

### **Screening or case review by auditors**

It is the traditional method by which audit cases have been selected, and dates from the time when there was little or no IT support, the data available was in any case limited, and the compliance risk management techniques at a strategic level less well developed. Such a methodology has a benefit that it makes full use of local knowledge, creates significantly less caseworkers resistance, can be used to attack specifically defined risks and can be operated substantially without IT support (OECD 2004a and OECD 2004b). Manual selection of audit cases is based on the auditors own knowledge of the taxpayers' behavior and environment. However, it cannot find out patterns of noncompliance hidden in the history of noncompliance in the same area, sector, or as determined by other taxpayer attributes. It also favors rent seeking and corruption in the tax administration since it is discretionary and subjective approach (Vellutini 2010).

According to OECD (2004a), the challenges inherent in relying on caseworker selection are: it relies on a limited data set with no systematic cross reference to other data available within the administration's system; caseworkers regardless of their experience can miss aspects of noncompliance with which they are non-familiar; those with the

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knowledge to undertake such screening are usually those with the skills to undertake the substantive intervention. Thus, there is an opportunity cost in asking them to undertake such screening. Modern standards of propriety indicate that there should be a gap between those selecting cases and those functioning cases.

### **Rule base and automated risk scoring systems**

It allows for the bulk processing and risk assessment of returns data. The data is reviewed against a set of risk indicators and the results be ranked in terms of the risk of noncompliance identified. Such system is an essential tool in facilitating the exclusion of bulk of returns with no or very low identified risks and allowing the resources for risk identification to concentrate their efforts only on those cases with significant identified risks (OECD 2004a).

However, this system has its own inherent challenges. First, many of the rules by which a case is scored are dependent on financial ratio analysis and other industry benchmarking that can be changed overtime. The rules also may be, in themselves, standard factors to be achieved when they become known within the population. Thus, attention needs to be given to continually update the risk rules.

Second, the rules need to be responsive to the local knowledge of the front line staff who is working on the cases when selected. Final case selections need to be able to reflect the local knowledge of the caseworkers themselves whilst retaining appropriate propriety within the case selection system. Automated selections with no opportunity to be influenced such local knowledge can create resistance and lead to suboptimal working once the cases are underway. In addition, the risk rules need to be responsive to the knowledge gained by front line workers from working their cases. Such knowledge can be about new risks, changes in commercial behaviors, or new technical tax devices and the impact of that knowledge can be significantly leveraged if it can be captured within a flexible and developing set of risk rules.

Third, the rules should bring together from dissimilar sources such as tax returns, third party information, and public domain information from internet. This level of analysis requires considerable investment in IT resources. Finally, the rules need to have the

capability to be changed reasonably and quickly to take in to account new strategic appreciation of compliance risk. Once again, if the rules are themselves hardwired in to IT coding then this may be a resource intensive business (OECD 2004a).

### **Data mining and statistical analysis**

It is becoming increasingly common to base case selection methodologies on the results from statistical analysis. As Barreca and Ramachandran (2004) stated, data mining is the exploration and analysis of large quantities of data in order to discover meaningful patterns and rules. Organizations use this information to detect existing fraud and noncompliance, and to prevent future occurrences. The use of data mining techniques identifies patterns of noncompliance in the past and those characteristics in the current population. It enables organizations to leverage their data to understand, analyze, and predict noncompliant behavior.

However, data mining requires significant investments in IT both hardware and software, and it may be difficult to acquire accurate data on which IT programs can operate. It is a difficult road to go down when electronic infrastructure do not support such investments or the skills are not available to the tax administration (OECD 2004a).

As OECD (2004b) noted, statistical analysis is often used to examine taxpayer data and to find the correlation between the data and non-compliance. It typically involves using prior tax audits results, which are then analyzed in conjunction with taxpayer data.

#### **2.1.4. Examination techniques**

A tax auditor applies various techniques to examine the books and records behind a return. The techniques to be used depend on the taxpayer and the tax regime concerned. As Biber (2010) noted, an effective case plan can be cognizant of a range of investigative and analytical approaches that may vary depending upon the area of risk and the circumstances of the particular taxpayer. The decision regarding the type of tests to be undertaken as well as the records needed by the auditor to address specific issues is influenced by the nature of the taxpayer's operations, adequacy of books and records, and materiality of potential adjustments.

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According to OECD (2006a), the techniques used for audit examination purposes include analytical review, investigative approach, field examination, record examination, and counterpart examination.

**Analytical review:** An analytical review of financial statements and returns are often completed during the preliminary stages of the audit. Ratios, such as gross profit and inventory turnover, are used to test the accuracy of taxpayers' reported sales, cost of sales, or ending inventory. The unusual variances (abnormal deviation of calculated ratios from the previous experience) are noted and addressed during the interview with the taxpayer and additional audit procedures developed where necessary.

**Investigative approach:** Auditors are encouraged to use an investigative approach in their audits. Such an approach uses information obtained through observation, discussion, documents or records obtained from either the taxpayer or other sources. It requires judgment, imagination and using information outside the accounting records to perform the audit.

**Field examination:** This is utilized when information gathered on significant events such as underhand trade, disguised transaction and other data concerning transactions. The examination also include on sight survey of the current conditions of the taxpayer's business through physical checks of original transaction records and vouchers, assets and liabilities and other aspects of the business.

**Record examination:** The main approaches to detect false accounting include the examination of books and documents conducted at the taxpayer's business office or branches, counterpart examinations and examination of savings and deposit accounts.

**Counterpart examination:** It is an examination performed based on third party information where warranted. As OECD (2006a) stated, information can be obtained during the course of an audit from third parties to verify the taxpayer's income, for example:

- Financial institutions and public companies information on interest and dividends matched with what taxpayers report in their tax return;

- Information from Government regarding social benefit payments, and employer information concerning salary and wages paid and tax deducted, both for income and non-monetary benefits; and
- Matching foreign source income.

### 2.1.5. Audit workforce capabilities

As OECD (2006a) stated, revenue bodies must manage and develop their audit workforce to deliver their planned outcomes through increasingly designing and implementing capability or competency models. Capability or competency model refers to a formal specification of the skills, knowledge and attributes of staff that are required to perform a specific job in an efficient and effective manner. The model generally contains job descriptions, functional descriptions, and competency profiles using task-related competencies. It is typically supported by training, exams, and educational requirements to ensure and build capability. The model is used as a basis for managing performance, training, staff development, and recruitment across the audit function.

Different capabilities are required for work performed in different market segments, or on clients exhibiting different behaviors towards tax compliance. Typical points of difference are capabilities required for noncompliant aggressive clients, audit work with large businesses (deeper and more specialized knowledge about specific regulations is required for this segment), performing system and electronic data base audits, and conducting criminal and fraud cases (OECD 2006b).

#### Required capability

According to OECD (2006a) stated, the required capabilities of auditors are generally identified by analyzing the activities required to perform particular audit tasks, and through practice and experience. In addition to their primary role of detecting and deterring noncompliance, tax auditors are often required to interpret complex tax laws and conduct intensive examinations of taxpayers' books and records. Hence, revenue bodies pay close attention to the overall management of the tax audit function, and particularly to the strategies and methods used for recruiting, developing and managing individual audit staff.

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Thus, tax auditors should have a capability to: conduct investigations, determine compliance, tax accounting and financial analysis, conduct research and analysis, make effective decisions under the law, effective communication, apply work processes and procedures, and manage own work and relationships (OECD 2006b).

In addition to the required core capabilities, greater attention and emphasis is needed on soft skills and other attributes. These include behavioral and motivational competencies, personal attributes such as work and integrity, feeling for the detection of fraud and irregularities, observe and detect relevant indicators in surroundings, identifies patterns and describes their significance to the situation, and effective observational skills. Familiarity with basic accounting, bookkeeping, and business and industry practices is also generally expected for all staff (OECD 2006b).

Moreover, the required capabilities of audit managers and directors are typically identified based on the notion of coaching, communication, and leadership skills. The required capabilities for audit managers and directors often focused on leadership and management skills, technical expertise, advanced audit skills, achievement orientation, ability to develop and coach others, high level communication skills, and ability to make strategic decisions (OECD 2006b).

### **Competency assessment**

It is important for tax administrations to assess and evaluate the competencies of their staff. The direct manager commonly performs competency assessments during recruitment and promotional processes on an annual or semiannual basis for those staff maintaining current positions (OECD 2006a). Assessments performed as part of recruitment processes are often performed by external specialists, human resource departments and/or panels of internal subject matter experts. Other events triggering capability assessments include prior to performing a new type of work, prior to starting a new role, and ongoing informal assessments and learning and development activities (OECD 2006b).

Assessment methods used include knowledge-based assessments administered online, formal tests and exams to attain a recognized qualification, peer reviews, a tutor to

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support and assess newly hired staff, and technical evaluations. The measurement and tracking process of the audit workforce provides management with tangible information of the resource and capability mix or trends across the whole audit workforce, providing valuable data for workforce and succession planning. Many revenue bodies indirectly attain a measure of the competency level of their audit workforce by considering: key performance indicators and results, quality assurance results, client or professionalism survey results, quantity of audits performed, training course and other assessment results (OECD 2006a).

Further, tax administrations may record the skills (including qualifications) and areas of expertise of individual staff. Using and sharing this information across the organization, tax administrations may better allocate work and identify specialist resources or skills (OECD 2006b).

### **Improving competency and addressing capability gaps**

Responsibility and accountability for improving auditors, audit managers and audit directors commonly lies with the staff member in question and their direct manager and/or local management team. Competency improvement should be integrated (not be seen as extra task) into normal business activities. Together with tax auditing or training departments, human resource departments (where applicable) often have joint responsibility and be significant contributors to the improvement process (OECD 2006a).

Revenue bodies may develop staff and address capability gaps through recruitment processes and the use of programs such as training and development programs, mentoring and coaching programs, accreditation models, job rotation and/or placement programs, career paths, knowledge sharing initiatives and knowledge tests. Capability gaps are typically gathered from various sources including quality management system results, performance system interviews and appraisals, client professionalism, satisfaction and other similar surveys, and training program evaluations (OECD 2006b).

Tax administrations must recruit audit staff specifically to carry out tax audits. To attract the right staff in increasingly competitive and skilled labor markets, effective

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recruitment policies are essential. Audit staff are generally recruited either fully trained so they can be effective in post very quickly, or selected because they have strong potential to become auditors through in-house training and education. A minimum standard of specific academic qualifications, such as a diploma or degree or being a chartered accountant, is often required for some grades of audit staff. There is also an assessment of applicants against competencies relevant to their audit work in the areas of problem solving, analytical skills, interpersonal skills, self-management, decision making and oral and written communications. Further, all auditors required to have computer skills with other more specialized skills, such as legal experience or specific types of tax knowledge being needed for posts that are more technical (OECD 2006a).

In order to maintain standards of auditing it is essential that auditors are given both initial training (classroom and on-the-job instruction) to bring auditors up to the required level, and continued training so that their skills are kept up to date and relevant. The extent and nature of this training and the balance between the two varies according to need, and relates to the recruitment and development policies adopted. Initial training varies depending on the level of qualifications and experience expected of new recruits. For instance, recruit staff without professional qualifications need much more extensive initial training in tax law and auditing, in-house testing is generally used to confirm that trainees reach the required standard (OECD 2006a).

To deliver ongoing training and development, a number of methods are used including training courses, computer based training packages, memos, guidance notes, self-study packs, facilitated workshops and discussion forums, on-the-job training, coaching and mentoring, and virtual university and learning tools. As a rule, continuing professional training is not normally examinable and the amount of training undertaken varies between countries and over time (OECD 2006a).

### 2.2. Empirical studies

A number of empirical studies examined tax administration in both developed and developing countries, tax audit program in particular. For instance, Bright et al. (1988), Collins and Plumlee (1991), Smith and Stalans (1994), Rhoades (1999), Chan and Mo (2000), Sen and Bala (2002), Tuerck et al. (2007), Arachi and Santoro (2007), Yesegat (2008), Gebeyehu (2008), and Appelgren (2008), have been taken.

All the aforementioned studies with the exception of Tuerck et al. (2007) examined tax audit. A brief review of each of these studies is presented in the following discussions.

Bright et al. (1988) studied statistical sampling for tax audits in United States of America (USA). The study tried to review whether the use of statistical sampling for audit is a sufficient basis for determining the taxpayers' unpaid liability rather than reviewing all transactions to determine the exact amount of tax owed. The study used case studies, and relied on the cases and data from consumption taxes, primarily sales and use taxes. The universe-documented transactions available for audit (those records available for examination) are used as a sample frame. The study is conducted on three agencies including Internal Revenue Service (IRS), the revenue departments in New York and Pennsylvania.

The finding of the study by Bright et al. (1988) indicated that audit assessment based on appropriately drawn and analyzed statistical sample do not suffer from the defects that the courts have correctly concluded for assessments based on non-statistical samples. Without sampling, it may be literally impossible for a tax examiner with a limited staff to audit an entire period especially when dealing with a taxpayer who conducts a large volume of transactions. The study further indicated that sampling techniques allow improved economies in the use of government resources in that tax administration can be more efficient, fairer, and less intrusive if the technologies used for identifying and measuring tax deficiencies are expanded to include controlled use of statistical sampling. The common interest of minimizing the duration of tax audit for both the tax administration and taxpayers can also be achieved with sampling techniques. However,

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statistical sampling cannot provide an exact determination of tax owed, and the uncertainty adjustment may sacrifice too much revenue.

Collins and Plumlee (1991) studied the effect of tax audit schemes on the taxpayer's labor and reporting decision. The study also examined the impact of alternative tax rates and penalty levels on earned and underreported income. Experimental design was adopted, and laboratory labor setting was used to test the effects of audit schemes, tax rates, and penalty levels on underreported income and work effort. The three independent variables that were manipulated include; tax rate, audit scheme (the decision rule the taxing authority followed in determining reports to be audit), and penalty for underreporting. The audit scheme took on three levels that differ principally in the information used by the taxing authority to determine self-reports to be audited: random (no information), cut-off (reported income information), and conditional (both reported income and an estimate of true income).

The experimental results of the study by Collins and Plumlee (1991) indicated that audit schemes that incorporate some preliminary information signal sent by the taxpayer might be more successful in curbing underreporting than purely random audit models. Nonrandom schemes are most effective when tax rates are low and penalty levels are rather high. Further, reported income and actual income do vary at the same time in that electing to underreport also earn more actual income.

In USA, Smith and Stalans (1994) also studied the negotiating strategies preferred by taxpayers and auditors for dealing with tax audit disputes. The study adopted a pre-audit open-ended interview conducted with a randomly selected sample of taxpayers and state tax auditors that drawn from four field offices of the Oregon Department of Revenue (DOR). For analysis purpose, the study used four general strategies based on the three choices. These strategies were go along, cooperate, actively assert, and hold firm.

The results of this study revealed that the strategic preferences of both taxpayers and auditors is influenced by the nature of the dispute, general taxpayer's attitudes toward taxpaying and tax administration, the difference in formal power, and the perceived role

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obligations of auditors. As the study results showed, tax auditors are more likely to include holding firm as one of their strategic choices. Whereas taxpayers who has an objective to minimize the time and effort they devote to the audit are more likely to prefer the cooperative strategies, but those taxpayers who believe that they can influence the decision making of the auditor are more likely to prefer the assertive strategies. The study further indicated that taxpayers who support taking advantage of loopholes and ambiguities in the tax law tend to prefer the assertive strategies, and those who want to minimize their involvement are more likely to prefer cooperative strategies.

There was another study conducted in USA by Rhoades (1999). Rhoades (1999) studied the impact of multiple component reporting on tax compliance and audit strategies. The study modeled taxpayer compliance behavior and tax authority audit strategies within the context of a multidimensional report of taxable income, and analyzed the impact of component reporting requirements on taxpayer incentives to misstate the tax liability. The study developed a model on a strategic tax reporting and detection in which taxpayers privately observe and report on two components of taxable income, denoted A and B. The sum of the two components represents the taxpayer's true taxable income.

The results of the study revealed that the impact of multi-component reporting requirements on specific taxpayers depends critically on their evasion opportunity set. The study stated that taxpayers with multiple evasion opportunities made misstatement across income components to minimize both the direct and indirect effects of detection whereas those with limited evasion opportunities pursued them less aggressively in the multi-component model. Further, in auditing reports with multiple potential misstatements, the tax authority benefits from joint cost efficiencies, positive correlation of true values, and sequential audit strategies as a means to update its evasion expectations. The study tried to generalize that multi-component reporting requirements appear to deter evasion and increase revenue collections to tax authority.

In China, Chan and Mo (2000) studied the effect of tax-holidays (exemption and reduction) on foreign investors' tax noncompliance behavior in the China's developing



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economy. The study adopted case studies, and used tax audit data (585 cases of 1996 tax returns of foreign investment enterprises audited in 1997) collected from the tax bureaus of selected coastal areas of China that enjoy large foreign investment. The cases were selected at random. In this study, noncompliance was measured in terms of tax audit adjustment that is overstatement of cost of sales in the pre-holiday period and over-provision for staff welfare in the post-holiday period.

The empirical results of the study by Chan and Mo (2000) indicated that a company's tax-holiday position affects noncompliance. Companies are least compliant during the pre-holiday period whereas most compliant during the tax exemption period. The study further indicated that domestic market oriented companies, service companies, and joint ventures are less compliant than export oriented companies, manufacturing companies, and wholly foreign-owned enterprises, respectively.

Sen and Bala (2002) studied income tax audit operation in Bangladesh. The intent of the study was to conceptualize the term tax audit conducted by professional chartered accountants, and to give an overview of the prevailing tax scenario and the operations of income tax audit. The methods adopted were experience survey and personal interview with tax officials in National Board of Revenue (NBR), and documentary analysis using documents such as Government statistical yearbooks and/or annual reports, and publications of the World Bank (WB) and the United Nations Development program (UNDP).

The results of the study confirmed that Bangladesh is unable to raise enough resources through taxes. The ratio of tax revenue to GDP is usually low, only little more than 9 percent of GDP. The study also revealed that income tax audit is conducted both in mandatory and discretionary manner although the extent of income tax audit practice is awfully inadequate. The major reasons identified in the study were unawareness and undesirability of most assesses, and the hesitation of chartered accountant (CA) firms to take up the task of tax audit. The hesitation of CA firms is because the sensitivity of the tax audit task spreads not only in the relevant year, but also in the future years until the finalization of the audit. Moreover, some established CA firms are often reluctant to

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perform the audit of tax basis accounting due to inadequacy of information, lack of efficient personnel, absence of audit continuity over the years, and want of logistic supports to maintain track record of information for future reference in tax cases.

Arachi and Santoro (2007) studied the use of tax audit strategy as enforcement for small and medium enterprises (SMEs) in Italy. The study focused on a major innovation in the field of tax auditing of self-employed workers and small firms. The methods adopted was documentary analysis using documents such as the Italian Tax Agency reports and previous studies made in Italy.

The main finding of the study by Arachi and Santoro (2007) was that tax enforcement for SMEs is always challenging since they usually operate on the border between the formal and the shadow economy. The study further showed that the distribution of firm size affects the optimal tax enforcement policy in two ways. First, there can be a relationship between firm size and the propensity to evade or to avoid taxes. Small traders may underreport the tax base, exploit loopholes in the tax system, choose an organizational form with preferential tax treatment, or operate outside the formal economy. Second, the costs and returns of tax auditing may depend on firm size. The study also argued that business sector analysis might be a valuable policy tool for developing countries, which have a large shadow economy and a high share of microenterprises.

In Ethiopia, there are two studies reviewed regarding tax audit. Yesegat (2008) studied VAT administration problems at large, VAT audit in particular, and Gebeyehu (2008) studied tax audit and its role in increasing government revenue in Ethiopia.

The study by Yesegat (2008) adopted an in-depth interview conducted with tax officials and surveys of taxpayers and tax practitioners conducted using semi-structured questionnaires. The main findings of the study regarding VAT audit is that the VAT audit rate is low that may be due to resource constraints, and the cases subject to audit are selected by audit selection committee based on a criteria including credit declaration, non-filing and unusual filing patterns, nil VAT declaration, and information from third parties. The study further revealed that the quality auditors (VAT

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administrators at large) are poor to achieve efficient and effective audit program. Based on the survey results, the study stated that tax administrators are not capable of handling audit cases quickly, lack confidence to make decisions and not have willingness to help taxpayers. In addition, the tax authorities have no sufficient number of VAT administrative personnel, which comprise only 10.4 per cent as to the proportion of the total employees at the Ethiopia Federal Inland Revenue Authority (EFIRA).

The study by Gebeyehu (2008) was an attempt to trace out the basic concepts of tax audit, and analyze the significance and role of tax audit in increasing tax revenue and in strengthening tax administration capacity. The methods adopted include questionnaires (both open and close-ended), personal interviews, and document analysis by using documents such as published materials, annual reports, magazines and internet.

The results of the study indicated that, in history, the highest ratio of tax to GDP in Ethiopia is 13 percent, which is registered in 2003/04. Most of the country's revenue is from non-tax sources such as grants. Revenue derived from taxes is dominated by indirect taxes. In general, the study mainly focused on the issues of personal income tax and business profit tax. The study stated that personal income tax does not need critical assessment other than checking whether the amount withhold by the employer is forwarded to the respective tax authority. Whereas, business profit tax needs much effort to levy and collect due to the high-risk of understatement and evasion since most taxpayers use all mechanisms that could understate their tax liability. However, there is no sufficient and available statistics about the extent of assessment under the prevailing tax audit net. The type of tax audit performed by tax auditors is only desk audit. So far, there is no field audit although the problem of tax evasion bothers revenue agencies at different levels.

Appelgren (2008) studied the effect of information regarding different audit strategies on taxpayers' compliance behavior in Sweden. The study was conducted with the intent of examining whether the taxpayers in reality behave as expected by theory of tax audit. Experimental design was used to test the effect of information regarding different audit strategies on taxpayers' compliance behavior. The experiment was measured as the

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change in declared income between years, and was conducted in 2003-04 on approximately 900 sole proprietors which are divided in to three groups (rational group, random group and control group) each with around 300 firms. The rational group members were informed that audit would focus on taxpayers declaring lowest income. The random group was told that audit would be at random whereas the control group members received no information. Further, the sample was limited to men below the age of 55 in order to concentrate on a high-risk group (younger men are more fraudulent than women and older men).

The principal finding of this study was that declared income increased significantly more in rational audit strategy group than in the control group. The results of the study indicate strongly that information concerning the use of rational audit strategies is superior to information concerning random audits, and that audit information, in general, is superior to no information. The information concerning the rational audit strategy reduces tax fraud compared to no information. According to this study, tax audits have an indirect deterred effect by which rational taxpayers adapt their behavior to the expected degree of auditing if they are made aware that they may be audited.

### **2.3. Conclusions to the literature review and knowledge gap**

Tax audit practice is a current issue for both developing and developed countries. There is no sufficient theory regarding tax audit activities. In the theoretical review, to the knowledge of the researcher, there is no standard as to the percentage of audit methodologies to be conducted in a given tax authority. In addition, there is no adequate literature regarding the appropriate audit examination techniques to be used for checking the accuracy of tax returns in line with the level of economy and technological advancement, developing countries in particular.

The empirical studies that have been reviewed in the preceding section focused on the different audit strategies that affect tax compliance behavior, income tax in particular, and the use of sampling tax audit strategy for improving the tax audit coverage. In addition, most prior studies regarding tax audit issues tried to examine the possible audit strategies including the use of audit information for the purpose of compliance

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improvement and fraud detection, and the impact of component reporting requirements on taxpayer incentives to misstate the tax liability.

However, to the knowledge of the researcher, it is possible to conclude that although there have been a number of studies on tax audit related issues both in developed and developing countries, Ethiopia in particular, there are no studies that exhaustively examine the tax audit practice. In Ethiopia, the two exceptions regarding tax audit issues are the study by Yesegat (2008) and Gebeyehu (2008) which have been reviewed in the preceding section. Even these studies did not assess exhaustively all tax audit activities in Ethiopia. The study by Yesegat (2008) was specific to VAT, and mainly focused on administrative capability issues. The study by Gebeyehu (2008) was specific to income tax in Addis Ababa City administration, and mainly focused on the way of increasing government revenue. Both of these two studies did not comprehensively examine issues regarding tax audit and its effect on tax revenue growth and compliance improvement by considering issues such as tax fraud investigations, types of audit performed and its suitability, appropriate case selection approaches, frequency of audit for other tax types, educational level and experience of tax auditors in Ethiopia.

Based on these gaps in the literature together with the problems stated in section 1.2, the following grand research question is established.

*“How is the tax audit practice in Ethiopia in respect of the type of audit performed and its suitability, appropriate case selection methods used, audit techniques applied, the frequency or rate of audit performed, and the experience and quality of audit staff resources?”*

With this end, the next chapter discusses the research design and specific research methods that are applied for the study along with proper justification for the selection of appropriate research methods.

The previous chapter reviewed both theoretical and empirical studies, and it tried to give a brief conclusion and excavate the gap in the existing knowledge. This chapter presents research design used in this study.

The remaining discussion in this chapter is organized in four sections. In section 3.1, the research objective and questions are presented as a means to connect the research questions to the particular research methodology adopted. In section 3.2, the different research approaches available to a researcher in general are discussed, and in section 3.3, the specific research methods adopted with proper justification for adopting a certain method are explained. Finally, in section 3.4, concluding remarks are presented.

### 3.1. Research objective and questions

The main objective of the study is to investigate the tax audit practice, and to identify the main problems of the tax audit program performed that affects tax revenue collection and taxpayers' voluntary compliance in the Ethiopian tax system (the case of the federal government).

In line with these broad objective, the researcher developed one central question and six specific research questions.

*Central question: "How is the tax audit practice in Ethiopia in respect of the type of audit performed and its suitability, appropriate case selection methods used, audit techniques applied, the frequency or rate of audit performed, and the experience and quality of audit staff resources?."*

Based on this central question, the following six specific research questions are stated:

- RQ1. Does ERCA perform appropriate range of tax audit types targeting noncompliant taxpayers?*
- RQ2. Does ERCA have adequate tax audit resources, tax audit staff in particular, in relation to international standards?*
- RQ3. What is the degree of the frequency and/or rate of tax audit performed?*
- RQ4. Does audit case selection methods and audit techniques used appropriate?*
- RQ5. What looks like the experience and capability of auditors participated in audit*

*practices as required by international standards?*

*RQ6. What are the main weakness and strengths of the tax audit program performed as compared to international standards?*

In order to address such research questions, the appropriate research methodology and specific research methods are adopted as discussed in the subsequent sections of the chapter.

### **3.2. Research approaches**

There are three alternative strategies of inquiry: qualitative, quantitative and mixed approaches. These approaches are different in terms of their philosophical assumptions as well as techniques used in data collection, analysis and interpretation, and are discussed in the subsequent paragraphs.

Qualitative research approach explores attitudes, behaviors and experiences through methods such as in-depth interview and/or focus group discussion (Dawson 2002). It uses narrative, phenomenological, ethnographies, grounded theory and case studies. The researcher collects open-ended emerging data with the primary intent of developing themes from the data (Creswell 2007). Qualitative approach attempts to get an in-depth opinion from participants. Apart from this, it facilitates responses, and provides data in-depth with leading respondents (Dawson 2002). It is capable to generate a theory by addressing issues which cannot be quantified. It also explores issues which are not studied in the past properly (Creswell 2007). However, this approach has been given less than a fair sense of appreciation. It has been criticized for lack of scientific rigor, small samples, subjective and nonreplicable efforts. The researcher's interference in the research process is very high that results bias due to small sample size and uniqueness of the research setting. It is also very difficult to make generalization to the whole population.

The second approach, quantitative research, generates statistical data through the use of large scale survey research, using methods such as close-ended questionnaires and/or structured interviews (Dawson 2002). Creswell (2009) noted that quantitative approach employs strategies of inquiry such as experiments and surveys, and collect data on

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predetermined instruments that yield numeric data that can be analysed using statistical procedures. It is a means for testing objective theories through examining the relationship among variables. It is advantageous as it, procedurally, follow scientific approach, tests reliability and validity of the instrument. It minimizes bias from the researcher's influence and employs large sample size. Hence, the results can be believed on and the results can be generalized to larger population. However, it is not capable to address issues which cannot be quantified. So that, it may has limited scope.

Finally, mixed methods approach is the blend of both qualitative and quantitative approaches. It employs strategies of inquiry that involves collecting data either simultaneously or sequentially to best understand the research problem. The data collection involves gathering both numeric information and text information (Creswell 2009). Mixed approach includes the use of theory deductively in theory testing and verification, or inductively in an emerging theory or pattern (Mertens 2003 cited in Creswell 2007). Therefore, the combination provides an expanded understanding of the research problems. It utilizes the strengths and overcomes the weaknesses of the two continuum approaches. However, incorporating both designs requires a great level of effort from the researcher such as need for extensive data collection. Mixed approach characterized by its time-intensive nature of analyzing both numeric and text data.

To sum up, in order to achieve the research questions stated in the previous section, the researcher used both qualitative and quantitative approach (mixed approach) in collecting and analyzing data as discussed in the following section. The selection of one over the other approach for the conduct of the study is based on the research problem (issue or concern that needs to be addressed), the researcher's own personal experience and the will and support of the audiences (Creswell 2009).

### 3.3. Research methods used

Research methods are the techniques used to collect data. In this study, the researcher adopted mixed methods approach, as discussed in the previous section, which is employed concurrently in collecting and analyzing data. There are different tools available to the researcher to collect the required data including questionnaires,

observation, interview, and document analysis. For this study, the researcher applied quantitative (survey) and qualitative (in-depth interview and document analysis), and are discussed in the following sub-sections.

### 3.3.1. Quantitative aspect: survey

Survey design is a research method that provides a quantitative or numeric description of trends, attitudes, or opinions of participants with the intent of generalizing from a sample to a population (Creswell 2009). Typically, survey gather data at a particular point in time with the intention of describing the nature of existing conditions, or identifying standards against which existing conditions can be compared, or determining the relationships existed between specific events (Cohen et al. 2000). As Weisberg et al. (1996) cited in Cohen et al. (2000) stated, surveys are useful to gather factual information, and data on attitudes, preferences, beliefs, predictions, behavior and experiences.

Survey research has its own strengths and weaknesses. The strengths of survey research include; highly flexible, possibly cover a wide range of research questions, describe an existing situation, easy to guarantee respondents' anonymity (for instance, questionnaires may lead to more candid answers), easier to generalize findings, and efficient in gathering large amounts of data at reasonably low cost and effort. The limitations include that it is difficult to come to deeper understanding of processes and contextual differences through questionnaires, which are standardized and by their nature limited in length and depth of responses (Muijs 2004).

This thesis has an objective of describing the aptness of audit case selection methods and techniques used, the degree of the frequency of tax audit performed, experience and capability of tax auditors, and examining the performance of tax audit program in line with international standards. Thus, survey method of quantitative approach is appropriate and employed for this study.

The remaining discussion in this section is thoroughly about sample design, survey instruments design, and data analysis techniques.

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### Sample design

A sample design is a definite plan for obtaining a sample from the sampling frame. It refers to the technique or the procedure the researcher would adopt in selecting some sampling units from which inferences about the population is drawn.

Sampling is the process of choosing smaller and more manageable number of study units from a defined study population. Since the goal of quantitative research is to generalize the results of the work to the whole of the research population, the sample should be selected carefully using the correct procedure. The sampling strategy adopted can affect the quality of a piece of research (Dawson 2002 and Cohen et al. 2000). Thus, attention should be paid to rigorous sampling; otherwise, the basis of the survey's applicability to wider contexts is seriously undermined.

Therefore, this study also goes through all the necessary steps of sampling design. First, the sample frame is determined. Then, from the sample frame, proper size of the sample, which can represent the population, is determined. Once the sample size is determined, then the researcher also clearly stated the procedures of selecting participants of the study.

Sampling frame is a complete list of the study population. For this study, the sampling frame was all tax auditors of ERCA in the federal government of Ethiopia. All tax auditors employed by ERCA until the conduct of the survey are included in the sample frame. The total number of tax and investigation auditors were 224 until the conduct of the survey.

Determination of economical sample size is a major challenge for a researcher in conducting a survey (Bordens and Abbott 2005). There is no a standard rule for the determination of sample size. Both large and small sample sizes have their own limitations. Too large a sample might become unwieldy and too small a sample might be unrepresentative. What matters in the determination of sample size is representativeness of the sample to a population. Therefore, the correct sample size depends on the purpose of the study and the nature of the population under scrutiny (Cohen et al. 2000). By convenience, most researchers take 10 percent of a population

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to determine their sample size. Therefore, the researcher also believed that taking about 30 percent (65 tax and investigation auditors) of the sample frame is representative.

There are two main types of sampling procedures: probability sampling and purposive sampling. Choosing the type of sampling technique depends upon the area of research, research methodology, and preference of the researcher (Dawson 2002). Probability sampling involves selecting elements randomly in that the selection of any one element is independent of the selection of the other elements while purposive sampling is used to make description rather than generalization (Dawson 2002). As stated above, the results of the study would be generalized. In addition to this, the researcher believed that all units of the sample frame provide similar information for the study. Therefore, probability sampling is employed.

There are different methods of probability sampling. Among this, simple random sampling is the most basic selection method in which each element of the population has equal or nonzero chance of being selected. It the best way of ensuring that sample is unbiased (Thiétart et al. 2001). Hence, simple random probability sampling is appropriate, and the researcher used lottery method to select the survey respondents.

### **Survey instruments**

Survey instruments include self-administered questionnaire, structured interview and structured observations (Creswell 2009). This study used questionnaire, which is a widely used and useful instrument for collecting survey information. As Wilson and McLean (1994) stated, questionnaire could provide structured information, being administered without the presence of the researcher, and often comparatively straightforward to analyze.

Questionnaire as a tool for data collection has its own advantages and limitations. The advantages found from the literature includes that the data collected through the use of questionnaire are efficient, reliable because of anonymous, honest, economical (in terms of time and money), quick (even possibly mailed), consistent (little scope for bias), offers the possibility of standardizing and comparing scales, and enables the anonymity of the data sources to be preserved. Nevertheless, the major limitations are nonflexible

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(no longer possible to backtrack once the administration phase is under way), lack of qualitative depth, low response rate, inability to offset a lack of sufficient data or an error in the scale used (Thiétart et al. 2001 and Cohen et al. 2000).

The researcher can select several types of questionnaire, from highly structured (closed ended) to unstructured (open ended). Structured questionnaire is appropriate to gather straightforward and uncomplicated information. It is easy to classify and quantify, require less time and effort, and ingenuity to answer. Nevertheless, it is tedious and time consuming to prepare questions. The researcher also may not have a full range of responses to prepare closed ended questionnaire. In addition, the respondents have no chances to express their own views, and to qualify, develop or clarify their own answers. On the other hand, unstructured questionnaire gives a greater insight and understanding of the topic being studied. However, it may be difficult to classify and quantify and must be carefully interpreted.

Thus, the use of either mere structured or unstructured questionnaire has its own flaws. To mitigate the limitations of both types of questionnaire, semi-structured questionnaire is a powerful tool (Cohen et al. 2000). Dawson (2002) also stated that researchers tend to use a combination of both open and closed questions. Such questionnaires begin with a series of closed questions, with boxes to tick or scales to rank, and then finish with a section of open questions for more detailed response. As a result, the researcher employed semi-structured questionnaire for survey data collection.

#### **Data analysis**

Surveys can be either descriptive or analytic. Descriptive surveys simply describe data on variables of interest, while analytic surveys operate with hypothesized predictor or explanatory variables that are tested for their influence on dependent variables (Cohen et al. 2000). For this study, the researcher applied descriptive analysis using tables and percentages.

### 3.3.2. Qualitative aspect: in-depth interview and documentary analysis

Qualitative research is used to describe or explain what is happening within a study area. Qualitative method mainly includes three kinds of data collection: in-depth interview, direct observation, and written documents (Patton 2003). For this study, data is collected through in-depth interview and documentary analysis. The following discussions present the in-depth interview and document study.

#### **In-depth interview**

An interview is a purposeful discussion and/or conversation with two or more people, and helps the researcher to gather valid and reliable data that are relevant to achieve research questions and objectives. Interviews might be structured (using standardized questions), semi-structured, and unstructured (in-depth) conversations (Saunders et al. 2003). Structured interview uses pre-established questions, asked in a predetermined order, using a standard mode of delivery. On the other hand, unstructured interview attempts to draw out information, attitudes, opinions, and beliefs around particular themes, ideas, and issues without the aid of predetermined questions (Leary 2004).

This study applied in-depth interview to explore the data that is unclear for the researcher and the information that have not been collected through survey and document analysis by allowing the interview to remain flexible.

To determine the sample size no formula exists in qualitative research. There is a tradeoff between depth and breadth, given limitation of time and money (Patton 2003). Thus, in-depth interview is conducted with three higher tax officials of ERCA as well as taxpayers, with the intent of gathering information that needs clarification and not be achieved through other techniques. In order to help to hold experienced or concerned respondents, purposive sampling is used. In such type of sampling, it is not possible to specify the possibility of one person being included in the sample.

#### **Documentary analysis**

Document analysis is the collection review, interrogation, and analysis of various forms of text as a primary source of research data. It refers to both a data collection method and a mode of analysis (Leary 2004). Document analysis is a tool conducted using

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documents such as written materials, organizational or program records, official publications and reports, news papers, a minutes of meeting, and personal documents (diaries, artistic works, letters, photographs and journals) (Patton 2003).

As Creswell (2009) noted, use of documentary analysis has its own strengths and limitations. The strengths are enables the researcher to obtain the language and words of participants, can be accessed to the researcher at a time conveniently, represents data which are thoughtful (participants given attention when compiling them), and economical (it saves the time and expense of transcribing). Whereas, the limitations include incompleteness, lack of accuracy (the documents may not be authenticated), requires transcribing or optically scanning for computer entry, not all people are equally articulate and perceptive, and may be protected from private access.

In addition to the data obtained through other methods, this study employed a descriptive analysis of documents such as periodical tax audit reports, proclamations, tax audit policy, and others documents that are relevant for the study. The document analysis is applied for examining the number of taxpayers audited in a given fiscal year, the amount of additional tax revenue through audit, the background information of the study area, and as a supportive for other tax audit activities in Ethiopian tax system.

### 3.4. Conclusions

In this chapter, research methodology options available to a researcher including quantitative, qualitative, and mixed method approach each using different knowledge claims, strategies of inquiry, and methods of data collection and analysis are discussed. The link of research questions and research methods adopted in this particular study is also presented with proper justification in method selection in line with the strength and weakness of each research method.

Mixed research design is opted for the study that helps the researcher to achieve the research objectives, and the required data is collected through survey questionnaire, in-depth interview, and documentary analysis.

With this end, the next chapter presents the results and analysis of the study.

In the previous chapter, the research methodology has been discussed, and the methods adopted for the study to attain the objective have been stated. This chapter presents the results and analysis of the data collected using different methods. The chapter is organized in four sections. The first section presents the research objective and questions to connect them with the results of the study. The second section presents the results of the study that have been collected through different methods adopted whereas the third section deals with the analysis of the results followed by the presentation of conclusions on the chapter in the fourth section.

#### **4.1. Research objective and questions**

This section presents research objective and questions in order to connect them with the results of the study that has been presented section 4.2. As presented in section 3.1, the main objective of this study was to investigate the tax audit practice, and to identify the main problems of the tax audit program performed that affects tax revenue collection and taxpayers' voluntary compliance in the federal government of Ethiopian tax system.

In connection with this, the overarching research question as presented in section 3.1 was:

*“How is the tax audit practice in Ethiopia in respect of the type of audit performed and its suitability, appropriate case selection methods used, audit techniques applied, the frequency or rate of audit performed, and the experience and quality of audit staff resources?”*

Based on this central question, the following six specific research questions (RQ) are stated:

- RQ1. Does ERCA perform appropriate range of tax audit types targeting noncompliant taxpayers?*
- RQ2. Does ERCA have adequate tax audit resources, audit staff in particular, in relation to international standards?*
- RQ3. What is the degree of the frequency and/or rate of tax audit performed?*
- RQ4. Does audit case selection methods and audit techniques used appropriate?*
- RQ5. What looks like the experience and capability of auditors participated in tax*

*audit practices as required by international standards?*

*RQ6. What are the main weakness and strengths of the tax audit program performed as compared to international standards?*

In order to address such research objective and questions, the appropriate research methodology and specific research methods were adopted as discussed in chapter 3, and the data collected through selected methods is presented in the results section of this chapter.

#### **4.2. Results**

Currently, the government of Ethiopia like other governments seeks to raise revenue mainly through taxation in order to pay its expenditures, on infrastructure development in particular. According to the proclamation No. 587/2008, the responsibility to collect such revenue for the federal government rests with ERCA in Ethiopia. ERCA came into existence in 2008, by the merger of the Ministry of Revenue (MoR), Ethiopian Customs Authority (ECA) and Federal Inland Revenue Authority (FIRA) (that formerly raise revenue for the federal government and prevent contraband) with a vision to be a leading fair and modern tax and customs administration in Africa. The reason for the merger was to diminish serious problems due to inefficient organizational structure and unnecessary complicated procedures that permitted insufficient service delivery, corruption within the administrations, and smuggling and tax evasion.

According to ERCA (2010), the authority is established with a mission to promote voluntary compliance of taxpayers, ensure integrity and develop skills of the employees, support modernization, facilitate trade and investment, harmonize taxes and customs administrating system, broadening tax base and decreasing tax rate, and contribute to the economic development and social welfare through effective tax revenue collection. Accordingly, ERCA has made a wide range of organizational and institutional reforms with the aim of strengthening revenue mobilization, enhancing operational efficiency, and improving voluntary compliance. For instance, process improvement, integrating and modernizing revenue administration, tax audit in particular, with new technology is ongoing.

Tax audit in the context of ERCA is defined as an activity or a set of activities performed by tax auditors to determine the taxpayer's correct tax liabilities for a particular accounting or tax period. Tax auditors examine taxpayers' organizational procedures and financial records in order to assess compliance with tax laws and verify the true, fair, reliable, and accuracy of tax returns and financial statements (ERCA 2010).

The subsequent discussion presents the results of survey, in-depth interview, and documentary analysis. Specifically, section 4.2.1 presents the survey outcomes. Section 4.2.2 presents the results of in-depth interviews with tax officials and taxpayers concurrently followed by the presentation of documentary analysis results in section 4.2.3.

#### **4.2.1. Survey results**

The sample size for the survey was 65 tax auditors and investigators so that 65 questionnaires were distributed. Nevertheless, the survey response was collected from only 55 survey respondents due to their workload as well as negligence. As Yesegat (2008) stated, the response rate of 71.8 per cent was reasonably good in consideration of the difficulty to collect data in poor developing countries, Ethiopia in particular. For this study, the response rate was 84.6 percent, and it is rationally fine. The remaining discussion in this section presents the survey outcomes regarding respondents' background information, types of tax audits performed, characteristics of audit program, audit case selection methods applied, examination techniques used, and audit resources, the capability and experience of tax auditors in particular.

##### **4.2.1.1. Background information of respondents**

The majority of respondents (72.7 per cent) were under the age category of less than 30 years. Out of the total respondents, 89.1 per cent were males and 10.9 per cent were females. Regarding educational level, 96.4 per cent of respondents were BA degree holder, and 1.8 per cent attended diploma. The respondents studied Accounting (80 per cent), Finance (5.5 per cent), Management (3.6 per cent), and Economics (7.3 per cent). The rest 3.6 per cent of respondents studied other fields. Regarding occupation, 70.9 per

cent of respondents were tax auditors, 10.9 per cent tax investigators, 10.9 per cent tax audit coordinators, and the rest 7.3 per cent occupied other positions (Table 4.1).

Table 4.1: Background information of respondents

Variables	N = 55	Count	Percent
Gender	Male	49	89.1
	Female	6	10.9
Age	less than 30 years	40	72.7
	30-40 years	13	23.6
	40-50 years	2	3.6
Highest level of education	Diploma	1	1.8
	BSc/BA	53	96.4
	Others	1	1.8
Field of study	Accounting	44	80
	Finance	3	5.5
	Economics	4	7.3
	Management	2	3.6
	Others	2	3.6
Current job occupation	Tax auditor	39	70.9
	Tax investigator	6	10.9
	Tax audit coordinator	6	10.9
	Others	4	7.3

Source: Survey outcomes and own computations

#### 4.2.1.2. Types of tax audit performed

The survey results showed that ERCA exhaustively conducts comprehensive audit (98.2 per cent of respondents) followed by desk audit (58.2 per cent of respondents). ERCA also conducts fraud investigation (38.2 per cent), refund audit (31 per cent), field audit (23.6 per cent), and spot (issue) audit (5.5 per cent) (Table 4.2). The survey respondents further stated that comprehensive audit is conducted using five-year taxpayer information to check whether taxpayers filed and paid the appropriate tax returns in line with the tax law and accounting principles. In ERCA, comprehensive audit is conducted to ensure compliance on the taxpayers selected by risk criteria and third party information, and on taxpayers those need to dispose over 50 per cent of their business

fixed assets or close the business. ERCA performed desk audit for data cleaning purpose to confirm whether the data submitted by the taxpayers is genuine.

Table 4.2: Types of tax audit performed in ERCA\*

Types of tax audit performed	Frequency	Percent
Desk (office) audit	32	58.2
Field audit	13	23.6
Comprehensive audit	54	98.2
Issue (spot) audit	3	5.5
Refund audit	17	31
Fraud investigation	21	38.2

Source: Survey outcomes and own computations

\*Multiple answers were possible

\*\*Figures do not add up

Regarding fraud investigation, 89.1 per cent of survey respondents replied that there is a responsible unit, tax crime investigators team, for the investigation of serious tax fraud or evasion (Table 4.3). The survey respondents further stated that tax crime investigator and intelligence team handles serious fraud case through third party information and physical participation as a customer (neutral person) in unexpected way.

Table 4.3: The presence of responsible unit for tax fraud or evasion in ERCA

There is a responsible unit for the investigation of serious fraud or evasion	Frequency	Percent
Yes	49	89.1
No	6	10.9
Total	55	100.0

Source: Survey outcomes and own computations

#### 4.2.1.3. The effective tax audit program

As 85 per cent of survey respondents showed, tax audit is performed to ensure compliance in accordance with tax law. The tax audit is also conducted to assess and collect additional tax revenue, check tax evasion or fraud, and educate taxpayers as responded by 71 per cent, 62 per cent, and 60 per cent of respondents respectively (Table 4.4).

Table 4.4: The purpose of tax audit program in ERCA\*

The purpose of tax audit	Frequency	Percent
To check tax evasion or fraud	34	62
To ensure compliance with tax law	47	85
To assess and collect additional tax revenue	39	71
To educate taxpayers	33	60
Others	2	4

Source: Survey outcomes and own computations

\*Multiple answers were possible

\*\*Figures do not add up

The survey result also showed that the main activities of tax auditors and investigators in ERCA is detecting noncompliance behavior of individual taxpayers (69 per cent of respondents), gathering information on the health of the tax system (56.4 per cent of respondents), and educating taxpayers (58.2 per cent of respondents) (Table 4.5).

Table 4.5: Main activities of auditors and investigators during tax audit\*

Main activities of tax auditors and investigators	Frequency	Percent
Detecting noncompliance of individual taxpayer	38	69
Gather information on health of the tax system	31	56.4
Educating taxpayers	32	58.2
Interpreting complex tax rules and regulations	18	32.7
Identifying areas of weakness in the tax law	16	29
Search for unregistered taxpayers	6	11

Source: Survey outcomes and own computations

\*Multiple answers were possible

\*\*Figures do not add up

Regarding taxpayers' tax awareness, 49.1 per cent of survey respondents showed that taxpayers lack awareness, and do not easily understand tax rules, forms, and instructions or information provided by ERCA with a mean of  $3.16 \pm 1.085$ . However, 30.9 per cent of respondents replied that taxpayers have awareness regarding tax rules, forms, and instructions (Table 4.6). The majority of respondents (51.9 per cent) also stated that taxpayers do not comply with the tax system in Ethiopia with a mean of  $3.24 \pm 0.970$  (Table 4.6). As 72.7 per cent of survey respondents replied with a mean of

2.29 ± .956, ERCA is capable to gather information through tax audit program regarding taxpayers' compliance behavior and areas of weaknesses in the tax law for clarification and amendment (Table 4.6). Further, out of the total respondents, 69.1 per cent of respondents with a mean of 1.80 ± 0.890 stated that tax audit program performed by ERCA makes its power visible to the community, and encourages noncompliant taxpayers to comply (Table 4.6). Taxpayers believe that there is a good chance of being seized in their underreporting and other noncompliance activities during an audit as responded by 90.9 per cent of respondents with a mean of 2.29 ± 1.165 (Table 4.6).

Regarding the conduct of audit on a range of tax types, 94.6 per cent of respondents showed that VAT audit is closely coordinated with other tax types, income tax in particular in ERCA with a mean of 1.56 ± 0.856 (Table 4.6). ERCA has no enough audit staff resources with a mean of 3.67 ± .862 as responded by 74.6 per cent of respondents (Table 4.6).

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Table 4.6: Summary of responses regarding effective audit program to encourage compliance and increase tax revenue

Statement	Percent							Mean	Std. Deviation
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Do not know	Total		
Taxpayers comply with the tax system in Ethiopia	5.6	18.5	24.1	50	1.9	0	100	3.24	0.970
Tax registered traders can easily understand and be aware of the rules, forms and instructions or information of ERCA	7.3	23.6	20.0	43.6	5.5	0	100	3.16	1.085
The ERCA can gather information regarding taxpayers' compliance behavior and areas of weaknesses in the tax law through tax audit program	12.7	60.0	18.2	5.5	1.8	1.8	100	2.29	0.956
Taxpayers believe that there is a good chance of being seized in their underreporting and other noncompliance activities during an audit	38.2	52.7	3.6	1.8	3.6	0	100	2.29	1.165
Tax audit program performed by the ERCA makes its power visible to the community and encourages noncompliant taxpayers to comply	25.5	43.6	12.7	14.5	1.8	1.8	100	1.80	0.890
VAT audit is closely coordinated and performed with other tax types, income tax in particular.	56.4	38.2	1.8	0	3.6	0	100	1.56	0.856
ERCA has enough audit staff resources to perform onsite audits or comprehensive crosschecking of invoices and transactions	0	16.4	9.1	65.5	9.1	0	100	3.67	0.862

Source: Survey outcomes and own computations

Regarding the size of taxpayers selected for audit, most of the respondents (74.5 per cent) replied that ERCA selected category “A” taxpayers for audit purpose; whereas 36.4 per cent and 27.3 per cent of respondents replied that ERCA audited category “B” and category “C” taxpayers respectively (Table 4.7).

Table 4.7: Category of taxpayers selected for audit\*

Category of taxpayers selected for audit	Frequency	Percent
Category A <sup>1</sup>	41	74.5
Category B <sup>2</sup>	20	36.4
Category C <sup>3</sup>	15	27.3

Source: Survey outcomes and own computations

\*Multiple answers were possible

\*\*Figures do not add up

Further, the response of 87.3 per cent, 78.2 per cent, and 76.4 per cent of respondents showed that ERCA has selected merchandising enterprises, manufacturing sector, and construction and real-estate sectors respectively for tax audit purpose. The rest two sectors selected for audit are service sectors and financial institutions as replied by 49.1 per cent and 14.5 per cent of respondents, respectively (Table 4.8).

Table 4.8: Business sectors mostly selected for audit\*

Business sectors mostly selected for audit	Frequency	Percent
Manufacturing enterprises	43	78.2
Service sectors (such as hotels, professional services, hospitality, etc)	27	49.1
Merchandising enterprises	48	87.3
Construction and real-estate sectors	42	76.4
Financial service sectors	8	14.5
Others	3	5.5

Source: Survey outcomes and own computations

\*Multiple answers were possible

\*\*Figures do not add up

<sup>1</sup> Any company incorporated under the laws of Ethiopia or in a foreign country, and any other business having an annual turnover of Ethiopian Birr (ETB) 500,000 and more.

<sup>2</sup> Business having an annual turnover of above ETB 100, 000 unless already classified in category “A”.

<sup>3</sup> Those businesses whose annual turnover is estimated up to ETB 100, 000.

The main reasons for the selection of the above category and sector of taxpayers are their higher compliance risk and large revenue potential as responded by 78.2 per cent and 51 per cent of survey respondents respectively (Table 4.9).

Table 4.9: Reasons for selection of category and sectors of taxpayers\*

Reasons for selection of sectors and category of taxpayers	Frequency	Percent
Taxpayers have higher compliance risk	43	78.2
Taxpayers have large tax potential	28	51
Taxpayers have no effective recordkeeping	8	14.5
It is difficult to tax taxpayers	4	7.3
Others	3	5.5

Source: Survey outcomes and own computations

\*Multiple answers were possible

\*\*Figures do not add up

#### 4.2.1.4. Audit case selection methods

As 87.1 per cent of the respondents replied, with a mean of  $1.89 \pm 0.718$ , taxpayers have been selected based on their associated compliance risk (compliance risk indicators) for audit purpose (Table 4.10). The sole mechanism to treat taxpayers' compliance risk might be tax audit with a mean of  $2.75 \pm 1.125$  as responded by 51.9 per cent of respondents though 34 per cent of respondents opposed this assertion (Table 4.10). As 65.5 per cent of survey respondents replied, auditors and investigators have good access to information kept by the taxpayers and other parties with a mean of  $2.40 \pm 1.011$  (Table 4.10). Taxpayers also cooperate to give essential information necessary for audit when necessary with a mean of  $2.60 \pm 1.065$  as replied by 52.7 per cent of respondents (Table 4.10).

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Table 4.10: Summary of responses regarding audit case selection

Statement	Percent							Mean	Std. Deviation
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Do not know	Total		
Taxpayers (auditee) are selected based on their associated compliance risk	27.8	59.3	9.3	3.7	0	0	100	1.89	0.718
Tax audit is a sole treatment for compliance risk available to ERCA	11.3	39.6	15.1	30.2	3.8	0	100	2.75	1.125
Tax auditors and investigators have good access to information held by taxpayers and others parties	16.4	49.1	12.7	21.8	0	0	100	2.40	1.011
Taxpayers cooperate to give essential information necessary for performing an audit	14.5	38.2	21.8	23.6	1.8	0	100	2.60	1.065

Source: survey outcomes and own computations

Further, the taxpayers' compliance risk is characterized by underreporting income (89.3 per cent), nonpayment of tax returns when due (67.8 per cent), failure to register as required by tax law (64.3 per cent), and non-filing tax returns (64.3 per cent) (Table 4.11).

Table 4.11: Characteristics of taxpayers' noncompliance behavior\*

<b>Taxpayers' noncompliance behavior</b>	<b>Frequency</b>	<b>Percent</b>
Non filing tax returns	18	64.3
Fail to register when required	18	64.3
Underreporting income	25	89.3
Registering of ineligible taxpayers	4	14.3
Nonpayment of tax returns on time	19	67.8

Source: Survey outcomes and own computations

\*Multiple answers were possible

\*\*Figures do not add up

As 81.8 per cent of respondents showed, the above compliance risks arise mainly due to taxpayers' lack of awareness. It may also arise due to weakness in tax administration, taxpayers' carelessness, and taxpayers' deliberate action as responded by 71 per cent, 60 per cent, and 60 per cent of respondents, respectively (Table 4.12).

Table 4.12: Reasons for the noncompliance behavior to arise\*

<b>Reasons for the noncompliance</b>	<b>Frequency</b>	<b>Percent</b>
Taxpayers' deliberate action	33	60
Taxpayers' carelessness	33	60
Taxpayers' lack of awareness	45	81.8
Weakness in tax administration	39	71

Source: Survey outcomes and own computations

\*Multiple answers were possible

\*\*Figures do not add up

In addition to compliance risk identification and prioritization, there are pre-audit case management factors including audit timeframe (period), inappropriate auditors' contact with taxpayers, the amount of potential tax revenue and the possibility of the collectability of such revenue.

Regarding the audit timeframe, 87.3 per cent of respondents showed that ERCA has a rule that requires audit activities to be started and completed within a predetermined timeframe (Table 4.13). The survey respondents further stated that the audit timeframe is 22 days regardless of the complexity of audit cases and the size of the taxpayers to be audited.

Table 4.13: The rule to start and complete the audit within a specified timeframe

The rule to start and complete the audit within a specified timeframe	Frequency	Percent
Yes	48	87.3
Neutral	7	12.7
No	0	0
Total	55	100.0

Source: Survey outcomes and own computations

Further, 47.3 per cent of respondents stated that taxpayers are sometimes selected for audit in the current period although those taxpayers were audited in the previous period and no audit liability owed found with them (Table 4.14).

Table 4.14: ERCA repetitively audit the same taxpayer in consecutive periods

ERCA repetitively audit the same taxpayer in consecutive audit periods	Frequency	Percent
Yes	8	14.5
Usually	4	7.3
Neutral	7	12.7
Sometimes	26	47.3
No	10	18.2
Total	55	100.0

Source: Survey outcomes and own computations

As stated by 56.7 per cent of respondents, repetitive audit is performed when serious tax fraud is found with taxpayers; and 30 per cent of respondents stated that such audit is performed when taxpayers report less tax return than the previous period (Table 4.15).

Table 4.15: When ERCA audit taxpayers repetitively in consecutive periods\*

When ERCA perform audit on taxpayers repetitively	Frequency	Percent
Taxpayers report tax return less than previous period	9	30
Serious tax fraud is found with taxpayers	17	56.7
Taxpayers have large tax potential	5	16.7
Others	2	6.7

Source: Survey outcomes and own computations

\*Multiple answers were possible

\*\*Figures do not add up

Regarding the auditors contact with taxpayers, 16.4 per cent of respondents proved that the same auditor or investigator could audit the same taxpayers repetitively in different audit periods. Similarly, 40 per cent of respondents replied positive answers for this assertion (Table 4.16).

Table 4.16: An auditor repetitively audit the same business

An auditor repetitively audit the same business	Frequency	Percent
Yes	9	16.4
Usually	2	3.6
Neutral	8	14.5
Sometimes	20	36.4
No	16	29.1
Total	55	100.0

Source: Survey outcomes and own computations

As 94.5 per cent of respondents showed, the potential amount of tax revenue that might be found with the target taxpayer and the capability of that particular taxpayer to pay tax owed have been considered to perform an audit work (Table 4.17).

Table 4.17: The consideration of tax return amount and collectability

Amount of tax return and its collectability is considered	Frequency	Percent
Yes	44	80.0
Usually	8	14.5
Neutral	2	3.6
No	1	1.8
Total	55	100.0

Source: Survey outcomes and own computations

Moreover, the case selection decision is based on accurate and timely taxpayer data. As the survey result revealed, the information used for tax audit might be from case histories of taxpayers (73.1 per cent), third parties (76.9 per cent), and business sector profile (53.8 per cent) (Table 4.18).

Table 4.18: Sources of required information for audit\*

Sources of audit information	Frequency	Percent
Reviewing the case histories of taxpayers	19	73.1
Information from third parties	20	76.9
Business sector profile	14	53.8

Source: Survey results and own computations

\*Multiple answers were possible

\*\*Figures do not add up

Regarding case selection methods, taxpayers to be audited have been usually selected using rule base and automated risk-scoring system (52.9 per cent), data mining (49.1 per cent), and statistical techniques using prior tax audit results (51 per cent). The survey results also showed that audit case has been rarely selected through tax audit team's office case review (18.2 per cent) and random selection (9.1 per cent) (Table 4.19).

Table 4.19: Audit case selection methods used in ERCA\*

Audit case selection methods used	Frequency	Percent
Taxpayers are selected randomly	5	9.1
Auditors select audit cases manually based on their knowledge	10	18.2
Data mining	27	49.1
Statistical techniques using prior tax audit results	28	51
Rule base and automated risk scoring system	29	52.7
Others	3	5.4

Source: Survey outcomes and own computations

\*Multiple answers were possible

\*\*Figures do not add up

#### 4.2.1.5. Examination techniques

The accuracy of tax returns have been tested through review of financial statements and returns (84.3 per cent); examination of information from third parties (78.4 per cent); examination of taxpayers' records (74.5 per cent); observing, discussing and reviewing documents of taxpayers (60.7 per cent); and physical checks of businesses' current operation including transactions, assets and other aspects (74.5 per cent). The survey result further showed that field examination (physical checks of taxpayers' assets and other aspects) is mainly used when a particular taxpayer needs to sell its business fixed assets or close the business (Table 4.20).

Table 4.20: Examination techniques used to check the accuracy of tax returns\*

Examination techniques used	Frequency	Percent
Review of financial statements and returns	43	84.3
Observing, discussing and reviewing taxpayers' documents	31	60.7
Physical checks of transactions, assets and others aspects	38	74.5
Examination of taxpayers' records	38	74.5
Examination of information from third parties	40	78.4

Source: Survey outcomes and own computations

\*Multiple answers were possible

\*\*Figures do not add up

#### 4.2.1.6. Capability and experience of tax audit staff

Tax auditors and investigators have been hired and held their current position based on their field of study (67.3 per cent), training and exam attended (63.6 per cent), level of education (54.5 per cent), and past work experience (25.4 per cent) (Table 4.21).

Table 4.21: Criteria to recruit and give a position an audit staff in ERCA\*

Criteria to recruit and give a position an audit staff	Frequency	Percent
Based on past work experience	14	25.4
Based on field of study	37	67.3
Based on education level	30	54.5
Based on training and exam attended	35	63.6
Others	2	3.6

Source: Survey outcomes and own computations

\*Multiple answers were possible

\*\*Figures do not add up

Regarding auditors' experience, the survey result showed that 80 per cent of respondents have no any audit experience before they have been employed in ERCA. In addition, 80 per cent of survey respondents have an experience of less than four years in their current position (Table 4.22). The survey result further showed that most auditors and investigators resign themselves from their position after two to four years of experience due to workload without additional benefits, absence of freedom and good atmosphere in work environment, absence of satisfactory allowance for fieldwork and uneven compensation payment for similar field activities, and absence of performance based promotion.

Table 4.22: Work experience of tax audit staff

		Frequency	Percent
<b>Audit experience before joined ERCA</b>	Yes	11	20.0
	No	44	80.0
	Total	55	100.0
<b>Work experience in current occupation</b>	Less than 2 years	26	47.3
	2-4 years	18	32.7
	4-6 years	7	12.7
	6-10 years	2	3.6
	Above 10 years	2	3.6
	Total	55	100.0

Source: Survey outcomes and own computations

Furthermore, regarding auditors' operational capability, 90.2 per cent of survey respondents showed that an individual desk auditor completes less than 10 cases on average per month. The survey result also showed that an individual field auditor performs less than 4 cases on average per month as responded by 88.9 per cent of respondents. An experienced junior tax auditor performs less than 100 cases on average per year as 93.6 per cent of respondents replied (Table 4.23). The survey respondents further stated that most tax auditors usually conduct their audit work without preparing pre-audit plan.

Table 4.23: Audit cases performed by a particular auditor

Audit cases performed by individual auditors		Frequency	Percent
<b>Desk auditor in a month</b>	Less than 10 cases	46	90.2
	10-20 cases	3	5.9
	21-30 cases	1	2.0
	Above 30 cases	1	2.0
	Total	51	100
<b>Field auditor in a month</b>	Less than 4 cases	48	88.9
	4-6 cases	4	7.4
	7-10 cases	2	3.7
	Total	54	100
<b>An experienced junior tax auditor in a year</b>	Less than 100 cases	44	93.6
	101-150 cases	1	2.1
	151-180 cases	1	2.1
	Above 220 cases	1	2.1
	Total	47	100

Source: Survey outcomes and own computations

Regarding competency assessment and capability improvement, 63.6 per cent of survey respondents showed that ERCA provides training and exam regarding tax law and tax audit issues at the time of recruitment before engaged in tax audit activities. In addition, 54.5 per cent of respondents showed that ERCA sometimes provides training after recruitment and once the auditors held their required position (Table 4.24).

Table 4.24: Training and exam to auditors and investigators

		Frequency	Percent
<b>Training and exam regarding tax law and audit issues at recruitment</b>	Yes	35	63.6
	Usually	3	5.5
	Neutral	3	5.5
	Sometimes	12	21.8
	No	2	3.6
	Total	55	100.0
<b>A continuous capability assessment and knowledge upgrading</b>	Yes	10	18.2
	Usually	3	5.5
	Neutral	3	5.5
	Sometimes	30	54.5
	No	9	16.4
	Total	55	100.0

Source: Survey outcomes and own computations

#### 4.2.2. In-depth interview results

The in-depth interview with tax officials showed that ERCA performs exhaustively comprehensive audit. However, along with the start of the implementation of the risk-based taxpayer selection system in July 2009, audit methodologies especially desk audit, and others such as field audit and spot (issue) audit come to existence in branch offices. The interview results also revealed that ERCA critically conducts investigation audit only at headquarter level based on the information that comes from various sources with evidence regarding the deliberate evasion or serious fraud.

The in-depth interview with tax officials also showed that tax needs to be based on voluntary registration, and should encourage taxpayers to voluntarily discharge their tax obligations in Ethiopia. As a result, the purpose of tax audit is primarily to educate taxpayers and improve their voluntary compliance. The interview respondents further stated that the duty of taxpayers' awareness creation is unquestionable to increase voluntary compliance and to mitigate compliance risks. Consequently, ERCA tried to create tax awareness through electronic media, printed materials, websites (uploading information and accessed to the public), and some face-to-face discussion forum with taxpayers in collaboration with Addis Ababa Chamber of Commerce and Sectoral Associations (AACCSA).

Regarding taxpayers' awareness, the in-depth interview with taxpayers testified that taxpayers lack awareness regarding tax type to which their business is liable, goods and services exempted from tax, negative upshot of contraband trade, and reporting and filing requirements of the tax law. The respondents further stated that taxpayers need compliance education to understand the benefits of being compliant and the consequence of not being compliant. In addition, there is a communication gap between ERCA and taxpayers, which leads taxpayers to mistrust. The taxpayers do not have easy access to new rules introduced and amendments in the existing tax law, and do not get any clarification on the complex tax rules and regulations.

Further, the in-depth interview with tax officials showed that ERCA used tax audit as a compliance enforcement tool to collect unpaid taxes from taxpayers and to ensure the

deterrent effect (improving future compliance). The interview respondents further stated that ERCA has sufficient powers to enter business premise, seize documents, gather information from third parties such as banks, and generally enforce payment of tax. The noncompliant taxpayers that have been considered as a big fish are penalized and enforced to pay the evaded tax with penalty and interest so as to maximize their future compliance as well as to educate others to comply by publicizing such enforcement.

Regarding segments of taxpayers selected for audit, the interview with tax officials showed that ERCA currently used segmentation approach in place of tax type based approach (the previous tax administration model) to conduct tax audit in order to provide a highly integrated and one spot customer service for taxpayers. Taxpayers have been segmented into Large Taxpayers Office<sup>4</sup> (LTO), Medium<sup>5</sup>, Small, and Micro Size taxpayers<sup>6</sup>. The segmentation approach results in customer satisfaction and minimizes both taxpayer compliance costs and tax administrative costs. The audit program focused on large taxpayers those account not more than 10 per cent of total taxpayers but contribute 75-80 per cent of total tax revenue.

The in-depth interview with tax officials further stated that, in addition to their large tax potential, large taxpayers segment has huge impact on investment and other economic participation. Thus, the Ethiopian tax system prioritizes and provides quality and on time services for such taxpayers for the benefit of both taxpayers and the tax administration system. It is unquestionable to ERCA to deploy its scarce resources primarily in large taxpayers regardless of the significance of risks that need attention to be audited in other taxpayer segments though it is necessary to allocate tax audit resources for the conduct of audit in other taxpayers segment. Because large taxpayers can contribute a huge amount of tax revenue as well as have complex structure, multiple operating entities with international business dealings.

<sup>4</sup> LTO include taxpayers with annual turnover of above ETB. 15,000,000 or US \$874,635.6. (US\$1= ETB 17.15 as of May 18, 2011-05-18).

<sup>5</sup> Taxpayers with annual turnover of above ETB. 500,000 (US \$29,154.5) up to ETB. 15,000,000 (US \$874,635.6).

<sup>6</sup> Regarding Small and Micro Size taxpayers, there is no a clearly stated turnover in order to distinguish such segments of taxpayers.

Besides, the in-depth interview with tax officials showed that construction industry is highly developing and increasing at present time in Ethiopia though the sector contributes relatively scant tax revenue and has high risk due to their complex transactions that might be difficult to identify for audit purpose. The service delivery sectors excluding financial service sectors are also risky taxpayers that have been usually selected for audit purpose. However, financial service sectors are automated users and prepare complete periodic reports as per the request of their shareholders. A well-structured regulatory body, National Bank of Ethiopia (NBE), also governs these sectors.

The segments and sectors of taxpayers have been selected based on their associated compliance risk (risk indicators) for audit as testified by the in-depth interview with tax officials. The interview respondents further stated risk criteria that include: the trend of delay in tax payment, non-filing tax returns, nil tax declaration, showing abnormal and repetitive loss report, profit significantly deviated from previous periods (underreporting income), report of too deviated margin from the sector, over claimed deductions, unusual credit and refund claim, and past case histories of taxpayers. In addition, the in-depth interview with the tax officials confirmed that the potential amount of tax revenue that might be found with the target taxpayer and the capability of that particular taxpayer to pay tax owed have been considered to perform an audit work.

Regarding sources of required audit information, the interview with tax officials showed that tax audit is conducted using information from SIGTAS<sup>7</sup> (Standard Integrated Government Tax Administration System), intelligence team, and third parties such as banks. However, the use of SIGTAS does not provide reliable decision to assure appropriate risk selection due to absence of well-organized and clean data.

For the purpose of audit case selection, the interview with tax officials showed that ERCA has partially implemented automated tax return filing systems since SIGTAS has not been fully utilized for risk assessment. As a result, ERCA currently uses both the

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<sup>7</sup> SIGTAS is an integrated package with modules necessary to manage all taxes and licenses including a risk selectivity module (ERCA 2010).

previous case selection system (random selection) and risk-based approach concurrently.

Regarding audit staff recruitment and development, the in-depth interview with tax officials revealed that tax auditors and investigators are employed in ERCA based on their level of education and cumulative grade point average (CGPA). Currently, ERCA hired a mass of youngest employees from newly graduated students, accounting and finance graduates as a tax auditor in particular. The interview respondents also stated that previous audit related work experience is preferable, and every recruited auditors and investigators should have good ethical behavior. In addition, at the time of recruitment, all candidate employees are expected to attend training regarding government policies and strategies, overall objectives and structure of ERCA, tax rules and regulations, and one week basic audit training (for candidate tax auditors). After the completion of the training, all the trainees are expected to take the exam (in-house tests) based on the training they attended for assessment purpose. Nevertheless, the interview with tax officials revealed that there is no a well-established model to make a continuous competency assessment.

The in-depth interview with tax officials further showed that tax auditors are categorized in to audit teams having their own team coordinators. Under each audit team, there are three levels of auditors: junior auditor, auditor, and senior auditor. The tax audit team coordinators assign audit cases to their own team members based on the auditors' experience and capability as well as the complexity of cases. The simple and medium cases are expected to be performed by junior auditors and auditors, whereas very complex cases are assigned to senior auditors.

Regarding auditors' capability, the in-depth interview with taxpayers showed that tax auditors have not standardized knowledge regarding clarification of unclear tax rules and regulations, and are incoherent in giving information regarding identical tax issues. In addition, tax auditors lack willingness to give advising services to taxpayers rather they simply intimidate them by raising the consequence of not being compliant. The tax officials, auditors in particular, also fail to keep properly taxpayers' data that have been

already submitted by taxpayers, and they unnecessarily request taxpayers to submit the report yet again.

#### 4.2.3. Documentary analysis results

As stated in ERCA annual report (2009/10), ERCA has no emphasis and do not assigned enough number of auditors for the conduct of investigation audit in its new organizational structure.

The annual report of ERCA for 2009/10 fiscal year also stated that there is no specified time range within which taxpayers are expected to present their data and to enforce non-volunteer taxpayers to submit the data on time.

Regarding audit coverage, the total number of taxpayers<sup>8</sup> administered by ERCA was 20,930 in 2008/09 fiscal year. Until July 7, 2010, the total number of taxpayers registered was 25,353, of which 18,985 (74.9 per cent) were registered at Addis Ababa branch offices (LTO, Addis Ababa East and Addis Ababa West). The rest 6,368 (25.1 per cent) were registered out of Addis Ababa branch offices. During 2008/09 fiscal year, ERCA has audited 1,106 taxpayers (5.28 per cent<sup>9</sup>), and found additional tax revenue of US \$112.17 million. In 2009/10 fiscal year, the authority covered 3,075 taxpayers through audit (12.1 per cent), and found additional tax revenue of US \$273.13 million (ERCA annual report 2009/10) (Table 4.25).

Table 4.25: The total number of taxpayers and audit coverage in ERCA

Item	Fiscal Year	
	2008/09	2009/10
Total number of taxpayers administered by ERCA	20,930	25,353
Total number of taxpayers audited in ERCA	1,106	3,075
Additional tax revenue found through tax audit (in millions of US dollars <sup>10</sup> )	112.17	273.13
Tax audit coverage (in per cent)	5.28	12.1

Source: Annual reports of ERCA in the 2008/09 and 2009/10 fiscal years

<sup>8</sup> The data is obtained from management information system (MIS) and annual reports of ERCA of the fiscal year 2009/10.

<sup>9</sup> The percentage of taxpayers audited is determined by taking the proportion of taxpayers audited to total number of registered taxpayers in each fiscal year.

<sup>10</sup> US\$1= ETB 17.15 (as of May 18, 2011-05-18).

Besides, ERCA had total employees of 3,583 and 4,934 during 2009/10 and 2010/11 fiscal years, respectively. Whereas, the number of tax audit staff was 179 and 224 for the fiscal years 2009/10 and 2010/11, respectively. The total number of audit staff in ERCA accounted 4.99 per cent and 4.54 per cent for 2009/10 and 2010/11 fiscal years, respectively<sup>11</sup> (Table 4.26).

Table 4.26: Staff resources in ERCA

Item	Fiscal year	
	2009/10	2010/11
Total number of staff in ERCA	3,583	4,934
Total tax audit staff in ERCA	179	224
Percentage of audit staff to total staff in ERCA	4.99	4.54

Source: Annual reports of ERCA in the 2008/09 and 2009/10 fiscal years

Note: The number of the staff resources for 2010/11 fiscal year is as of April 30, 2011, and according to the human resource management, all staff could stay in their job position and there is no plan to hire new staff until the end of 2010/11 fiscal year (July 7, 2011).

There is also a higher employee turnover, audit staff in particular, in ERCA. For instance, in the fiscal year 2010/11<sup>12</sup>, there are 1,520 employees hired in ERCA mainly through CGPA. Nevertheless, 168 employees dismissed from their positions, out of which 110 employees resigned themselves, and the rest 58 employees are forced to leave their job due to their ethical problems and other reasons.

In addition, there is shortage of computers, network cables, and sockets. There is also absence of separate workroom to keep the information that might be used for conducting investigation audit. Even the existing computers are detected by viruses and do not accept flash and CD to enter the softcopy information that comes from different sources. Moreover, the tax auditors have no access for the SIGTAS, and are not even familiar with the system due to absence of adequate training (ERCA annual report 2009/10).

<sup>11</sup> The percentage of audit staff resources is determined by considering the percentage of tax audit staff to total staff in ERCA.

<sup>12</sup> The data is obtained from the nine-month report of ERCA for the 2010/11 fiscal year (from July 7, 2010 to April 30, 2011).

### 4.3. Analysis

This section presents the analysis and interpretation of the results having the necessary data collected and presented in section 4.2 to come up with meaningful patterns.

In Ethiopia, the key source of revenue for the government of Ethiopia is tax followed by external loan grants and assistances. However, the potential tax revenue is not collected due to absence of taxpayers' compliance with the tax law both deliberately and unknowingly. Thus, ERCA used tax audit to determine the taxpayer's correct tax liabilities for a particular accounting or tax period with examination of taxpayers' organizational procedures and financial records in order to assess compliance with tax laws and verify the true, fair, reliable, and accuracy of tax returns and financial statements.

The analysis addresses the tax audit practice in Ethiopia with respect to the type of audit performed, effectiveness of audit program in terms of educating taxpayers and improving voluntary compliance and revenue performance, the appropriateness of case selection methods, examination techniques, and experience and capability of tax auditors.

The first aspect of tax audit practice is the type of audit performed in ERCA and its suitability in respect of improving voluntary compliance and increasing tax revenue for the federal government of Ethiopia. An effective audit program should be with vigorous range of audit types directed to a wide range of taxpayers and tax types. Biber (2010) stated that the appropriate selection of tax audit types depends on the compliance risk needs to be addressed, the desired audit rate (coverage), audit quality, and the overall deterrent effect that needs to be accomplished. As OECD (2006a) stated, the scope of tax audit may be narrow or broad depending on the specific risk relating to a taxpayer, and the limited audit resources should also be allocated towards the noncompliant to detect compliance risk, and to support those taxpayers who want to be compliant.

However, the results of the study revealed that tax audit program remains undeveloped in ERCA with an emphasis on comprehensive and desk audit with the exclusion of other audit methodologies (Table 4.2). As Biber (2010) stated, excessive examination

might be appropriate to properly detect taxpayers' noncompliance when it has been applied to those taxpayers where there is an indication of underreporting that could impact across taxes. Nevertheless, ERCA exhaustively conducts comprehensive audit with intensive examination of five-year taxpayer data across all tax obligations. As a result, ERCA might consume audit resources improperly with exertion of much work force, tax audit staff in particular, on mass of transactions and intensive records even on reliable tax returns due to its concentration merely on comprehensive examination of five-year period documentation. As OECD (2006a) stated, such type of audit operation might result low audit coverage (rate) that affects the overall deterrent effect<sup>13</sup> and future tax revenue. In addition, as Tait (1988) stated, such excessive examination of taxpayer data may create collision between taxpayers and tax official, and auditors' error in such examination may also damage business activity that result in negative impact on the economy, tax system in particular.

On the other hand, the practice of spot (issue) audit is almost nil (Table 4.2). ERCA does not consider its audit activities to be on specific errors or compliance risks (transactions and vouchers or records) that concerns the tax system with respect to potential loss of tax revenue due to evasion or fraud and other noncompliance activities. As a result, as Biber (2010) stated, the tax authority might suffer low audit coverage that minimizes tax revenue and overall voluntary compliance.

Regarding fraud investigation, ERCA has a responsible unit that handle serious cases of tax fraud or evasion in all its individual branches (Table 4.3). However, the in-depth interview with tax officials showed that investigation audit is conducted with less emphasis only at the headquarter level although it might be appropriate to conduct such audit in all branches. The number of auditors assigned for such audit practices is also inadequate to perform audit activities in all cases that come from all branch offices. Further, there is no a special workroom for investigation audit to keep the information secret and conduct the audit in safe work environment. ERCA might also incur

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<sup>13</sup> Deterrent effect means future improvement in taxpayers' voluntary compliance by encouraging compliant taxpayers and detecting noncompliant taxpayers through covering a wide range of taxpayers.

additional costs and may not keep the information secret due to time lag during the transfer of information from individual branch offices to head office for audit purpose.

Further, Ethiopia currently performs a wide range of organizational, institutional and various tax reforms and amendments to create fair, flexible, and modern tax system that results utmost tax revenue at minimum cost for both taxpayers and tax administration system. In addition, the level of taxpayers' awareness is relatively poor, and taxpayers are incapable to understand the stated tax rules and regulations as well as the forms and instructions provided by ERCA (Table 4.6). In such condition, as per the literature, it is appropriate to implement well-organized educational type audits and advising services to encourage taxpayers those needs to comply, and detect compliance risk of noncompliant taxpayers. However, the in-depth interviews with tax officials showed that education type audits such as advisory audit (especially to newly established businesses), registration check, and record keeping audit have not yet in place in ERCA. As a result, taxpayers might not be well-informed regarding the newly introduced tax rules and amendments made on the existing tax regulation to keep-up taxpayers with updated tax knowledge and to encourage complaint taxpayers as well as to detect noncompliant taxpayers those operate in illegal economy.

Moreover, in Ethiopia, there is a need to have taxpayers that might be registered voluntarily and discharge their tax obligations. Nevertheless, the in-depth interview with taxpayers testified that taxpayers lack awareness regarding the tax type to which their business is liable, goods and services exempted from tax, negative upshot of contraband trade, and reporting and filing requirements of the tax law. Thus, taxpayers need compliance education to understand the benefits of being compliant and the consequence of not being compliant. Due to absence of access to new amendments in tax law and clarification on complex tax rules and regulations, communication gap is created between ERCA and taxpayers that might result mistrust. As a result, tax audit is conducted, in ERCA, primarily to ensure compliance in accordance with the tax law, to assess and collect additional tax revenue, check tax fraud or evasion, and educate taxpayers (Table 4.4). The main activities of auditors and investigators during their

audit work include detecting noncompliance of individual taxpayer, educating taxpayers, and gather information on health of the tax system (Table 4.5).

Among others, creating taxpayers' awareness might be necessary to increase voluntary compliance and to mitigate future compliance risks in Ethiopia. Because compliance risks might arise mainly due to taxpayers' lack of awareness as well as weakness in the tax administration, taxpayers' carelessness, and taxpayers' deliberate action (Table 4.12). Consequently, as the in-depth interview with tax officials stated, ERCA has tried to create tax awareness through electronic media, printed materials, website (uploading information and accessed to the public through webpage), and some face-to-face discussion forum with taxpayers in collaboration with AACCSA. However, taxpayer awareness creation through such mechanisms might depend on the literacy level of the target taxpayers and the accessibility of such materials to the public within a given tax jurisdiction.

In Ethiopia, the literacy rate is low (42.7 per cent during the year 2005 – 2009<sup>14</sup>) as compared to other countries, OECD countries in particular. Low levels of literacy, education in general, may impede the economic development of a country, performance of tax system in particular, in the current rapidly changing and technology-driven globe. Beyond being illiterate and unfamiliar with the technology, there is no easy access and appropriate network for even familiar and educated taxpayers to use the webpage in Ethiopia. Thus, taxpayers, in such cases, may not be aware about the Ethiopian tax system, and voluntary compliance might not be achieved in ERCA due to the absence of advising and law elucidation services through reasonable physical contacts with taxpayers.

Regarding compliance enforcement, the audit program performed in ERCA can detect noncompliance behavior of individual taxpayers and gathering information on the health of the tax system regarding the taxpayers' compliance behavior and areas of weaknesses in the tax law for clarification and amendment (addressing the deficiencies

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<sup>14</sup> The data is obtained from Central Intelligence Agency (CIA), the world fact book (2010). The literacy rate for OECD countries such as USA, United Kingdom, and New Zealand is 99 percent during the same periods.

in the tax law) (Table 4.6). This finding coincides with the statements of OECD (2006a). The finding also coincides with the statement of Biber (2010) that, as presented in the results section (Table 4.6), taxpayers might also feel that there is a good chance of being seized in their underreporting and other forms of noncompliance activities that might be due to application of strong sanctions where noncompliance is encountered.

Thus, tax audit is used as a compliance enforcement tool to collect unpaid or evaded tax return and to ensure the deterrent effect. The tax administrators, auditors and investigators in particular, have sufficient powers to enter a business premise, seize documents, gather information from third parties such as financial institutions, and generally enforce payment of tax when due. Through audit, ERCA utilizes such enforcement powers in addressing the revenue arrears and evasion challenges it faces, and makes its power visible to the community and encourages noncompliant taxpayers to comply (Table 4.6). The in-depth interview with tax officials showed that noncompliant taxpayers that have been considered as a big fish are subject to penalty, and have been enforced to pay the evaded tax with such penalty and interest so as to maximize their future compliance as well as to educate others to comply by publicizing such enforcement.

However, ERCA may not achieve the expected future voluntary compliance in the absence of services along with the taxpayers' lack of tax awareness. Without educating taxpayers and creating tax awareness, making power visible to the community might detect the deliberate evasions and frauds but not be a solution to create a compliant taxpayer those does not comply unknowingly. As EC (2006) stated, tax administrators should not simply enforce but must foster tax compliance through improving services to taxpayers by providing them with clear instructions, understandable forms, and assistance and information as necessary. Hence, implementation of severe penalty and enforcement to pay evaded tax may not be long-lasting solution to create fair and smooth tax system with high compliant taxpayers to ERCA.

Apart from the use of tax audit as a means of educating taxpayers and a compliance tool, an equally important factor in an effective audit program is the identification of specific segments and sectors of taxpayers to be selected for audit. As Biber (2010) stated, grouping taxpayers by their common character is appropriate since taxpayers have varied characteristics and risks to tax revenue that might require different audit treatment including staff allocation based on case complexity.

Consequently, as the in-depth interview with tax officials showed, ERCA has tailored its audit work to specific sectors and taxpayer segments, and currently used a segmentation approach to conduct tax audit in order to provide a highly integrated and one spot customer service for taxpayers. Taxpayers have been segmented into Large Taxpayers Office (LTO), Medium, Small, and Micro Size taxpayers. Such segmentation of taxpayers might help ERCA to recognize the complexity levels of audit cases in audit activities, and to distinguish the competency requirements, classification, and remuneration of tax auditors to plan staffing accordingly. Such appropriate allocation and compensation of tax audit staff might encourage tax auditors to conduct properly their audit activities, which might result in higher audit performance in terms of coverage and quality. In addition, segmentation of taxpayers might provide one spot customer service that might result customer satisfaction, and minimizes both taxpayer compliance costs and tax administrative costs.

Further, ERCA has conducted its audit activities mainly on category 'A' along with less emphasis for category 'B' and category 'C' taxpayers (Table 4.7). The main reason for the selection of such category of taxpayers for audit purpose is their higher compliance risk and large revenue potential (Table 4.9). This finding is confirmed by the in-depth interview with tax officials, and the interview result showed that tax audit program in ERCA focused chiefly on large taxpayers those account not more than 10 per cent of total taxpayers but can contribute 75-80 per cent of tax revenue and are highly influential in investment and other economical activities. In addition, ERCA needs to provide quality and on time service for large taxpayers for the benefit of both such taxpayers and the tax administration. Hence, ERCA deployed undeniably its scarce resources primarily to taxpayers with large tax potential regardless of the

significance of risks that need attention to be audited in other taxpayer segments. As a result, ERCA may increase its tax revenue through audit of taxpayers those with large tax potential.

However, as Tait (1988) stated, the deterrent effect of tax audit (improving voluntary compliance) is best achieved by extending the audit program to as many taxpayers as possible at all levels of taxpayers. Voluntary compliance is generally enhanced by increasing the number of taxpayers audited than auditing taxpayers with large tax potential. Thus, ERCA may not improve future taxpayers' voluntary compliance that may affect future tax revenue, and may not be capable to sustain confidence in the tax system and its administrations in the absence of improving overall voluntary compliance. Further, ERCA may increase short-term tax revenue by auditing taxpayers with large tax potential at the expense of decreasing future tax revenue and compliance at other segments of taxpayers. When ERCA gives emphasis only for a particular segments or categories, Category "A" in particular, the unaudited category or segment of taxpayers would feel that their underreporting and other noncompliance activities have little chance of being detected due to less probability of being audited.

Regarding sectors selected for audit, ERCA conducts audit usually on merchandising, manufacturing, and construction and real-estate sectors due to their large tax revenue at risk (Table 4.8). Besides, as the in-depth interview with tax officials showed, construction industry is highly developing and increasing at present time in Ethiopia. However, construction sectors contribute relatively scant tax revenue to ERCA, and have high risk due to their complex transactions that might be difficult to identify for audit purpose. The service delivery sectors excluding financial service sectors are also risky taxpayers that have been usually selected for audit purpose. However, financial service sectors are automated users and prepare complete periodic reports as per the request of their shareholders. A well-structured regulatory body, National Bank of Ethiopia (NBE), also governs financial service sectors. Thus, as OECD (2006a) and Tait (1988) stated, tax revenue can be increased by concentrating on taxpayers where large amount of revenue is at risk.

The other characteristic of effective tax audit program is a broad coverage of taxpayer groups (by size and sector) and compliance issues (Harrison and Krelove 2005). As indicated in the literature review in chapter two, in a fairly well established tax system, audit rate of 15 to 20 percent of registered traders a year is sufficient (Tait 1988). However, ERCA audited only 1,106 taxpayers out of 20,930 registrants (5.28 per cent), and have detected and found evaded tax revenue of US \$112.17 million in the 2008/09 fiscal year. Similarly, in the 2009/10 fiscal year, the authority audited 3,075 taxpayers out of 25, 353 registrants (12.1 per cent), and found additional tax revenue of US \$273.13 million (Table 4.25). It indicates that ERCA might detect compliance risk and get more additional tax revenue as the audit coverage is increased. Thus, there is low and insufficient audit rate in ERCA. The low audit rate (coverage) might be due to conducting extensive comprehensive audit mainly on taxpayers those with large tax revenue and complex transactions, along with insufficient audit resources including qualified tax auditors, and equipments such as computers.

Regarding staff resources, the total staff assigned to audit should be close to 40 per cent of the total staff of the tax administrations (Biber 2010). However, the audit staff resource is insufficient in ERCA (Table 4.6). In the 2009/10 fiscal year, the proportion of tax audit staff to the total number of employees in the ERCA was about 4.99 per cent. Similarly, in the 2010/11 fiscal year, the proportion of tax audit staff to the total number of employees is about 4.54 per cent (Table 4.26). Having insufficient tax auditors results ineffective audit program. The required level of audit quality and audit coverage might not be achieved. There might be a possibility of missing opportunities and imperfect detection of compliance risks due to workload on staff resources.

In addition, documentary analysis showed that there is shortage of other audit resources such as scarcity of computers, network cables and sockets, and absence of separate workroom to keep the information that might be used for conducting investigation audit. Even the existing computers are detected by viruses and do not accept flash and CD to enter the softcopy information that comes from different sources. It might be due to the absence sufficient support from IT experts in order to prevent and detect such problems by installing antivirus software on time and when necessary. Moreover, tax

auditors have no access for the use of SIGTAS as a source of audit information, and are not even familiar with the system due to absence of adequate training. Tax auditors those getting access for the SIGTAS could not also connect their computers to the information network due to scarcity of cables and sockets. In such case, even the existing tax auditors could not perform their audit activities as expected that results low audit coverage and audit quality due to lack of adequate audit information and paucity of sufficient and fully operating computers to process the audit data.

Another aspect of tax audit practice is use of appropriate audit case selection methods to select taxpayers for audit. As noted in the literature, the selection of appropriate audit candidates in line with program objectives is a key to the effectiveness of tax audit program (Barreca and Ramachandran 2004). In ERCA, audit of all taxpayers is unattainable having inadequate audit resources and large noncompliant taxpayers (especially small and medium enterprises) both unknowingly and intentionally. Taxpayers might underreport their income, not pay tax returns when due, fail to register when required by the tax law, and fail to file their tax returns (Table 4.11). As a result, taxpayers have been selected based on their associated compliance risk (risk indicators) for audit purpose (Table 4.10). The in-depth interview with tax officials showed that the risk selection criteria include the trend of delay in tax payment, non-filing tax returns, nil tax declaration, showing abnormal and repetitive loss report, showing profit significantly deviated from previous periods (underreporting income), reporting exaggeratedly deviated margin from the sector, potentially over claimed deductions, unusual credit and refund claim, and past case histories of the target taxpayer.

In addition to compliance risk identification and prioritization, there are pre-audit case management factors including the audit timeframe (period), inappropriate auditors' contact with taxpayers, the consideration of the amount of potential tax revenue and the possibility of the collectability of such revenue.

Regarding tax audit timeframe, ERCA has a rule that requires an individual audit case to be started and completed within 22 days period regardless of the complexity of the cases and the size of the taxpayers to be audited (Table 4.13). As a result, as per the

researcher's knowledge concerned, the allocation of equal period for both complex and simple cases might result operational inefficiency including decrease in audit quality and coverage although there is no standard timeframe for both complex and simple cases. Tax auditors those expected to perform complex cases might not properly detect noncompliance due to time scarcity and the required audit quality might not be achieved; whereas auditors those expected to complete simple cases might complete even before the elapse of stated period and might consume working time improperly so that feasible audit coverage might be reduced.

Further, as OECD (2006a) stated, a taxpayer that is audited for the current year, and the audit results in no additional taxes owed should be granted relief from audit for the next two years except if substantial changes take place such as serious tax fraud. Similarly, in ERCA, taxpayers have been sometimes selected for audit in a given period although those taxpayers were audited in the preceding period and have no evaded tax liability owed in that period (Table 4.14). The audit is conducted when serious tax fraud is found and taxpayers report tax return less than previous audit period (Table 4.15). Thus, it might be appropriate to conduct audit on the same taxpayers repetitively when serious tax fraud is found regardless of the taxpayers' compliant history. However, the taxpayers' tax returns might vary and be reduced due to economical and/or operational factors. The taxpayers' report of less tax return is not necessarily being an indication of being noncompliant. Thus, ERCA might unreasonably consume its audit resources that make the tax audit program nonproductive and time-consuming as well as increase the hardship associated with repetitive audits for fully compliant taxpayers.

The other per-audit case management factor is auditors' inappropriate contact with the taxpayers. As OECD (2006a) stated, individual tax auditors and investigators should be prohibited from repeatedly auditing the same taxpayer, and should exclude themselves from taking up an audit where they are familiar with the taxpayer selected for audit. Nevertheless, in ERCA, the same auditor or investigator might sometimes perform audit activities on the same taxpayers repetitively in different audit periods (Table 4.16). Such repetitive contact between tax auditors and taxpayers would be due to

resource constraint (insufficient audit staff). However, such condition might encourage the risk of corruption.

Before conducting tax audit, the potential amount of tax revenue that might be found with the target taxpayer and the capability of that particular taxpayer to pay tax owed have been also considered in ERCA (Table 4.17). However, the primary objectives of revenue authorities is proper assessment of tax liability, improvement of overall compliance with tax laws, and in process sustain confidence in the tax system (OECD 2004a). Thus, the collection process of evaded tax revenue is the secondary objective that comes after founding and detecting the evaded tax on a certain taxpayer. In addition, the collectability consideration only to the current tax period excludes taxpayers' future payment potential that might not provide a complete financial picture for taxpayers. It might not also help ERCA to bring noncompliant taxpayers to the tax system.

Moreover, the case selection decision is based on accurate and timely taxpayer data and data analysis techniques. The required information for tax audit might be from SIGTAS, past case histories of taxpayers, third parties such as banks and informants (whistle-blowers), and intelligence team. In addition, auditors and investigators have good access to information kept by taxpayers and other parties (Table 4.10). Taxpayers also cooperate to give essential information compulsory for audit (Table 4.10). However, the in-depth interview with tax officials showed that the use of SIGTAS does not provide reliable decision to assure appropriate risk selection due to absence of well-organized and clean data. This condition results the audit work to be mainly depend on external sources, and the unorganized and insufficient audit information from internal sources might hinder the audit operation from being performed on time and as scheduled. Further, documentary analysis showed that there is no specified time range within which the taxpayers are expected to present their data. The absence of such rule might hinder audit performance since noncompliant (non-volunteer) taxpayers might not present the data on time as required.

Based on taxpayer data, audit case is selected in ERCA using the statistical techniques using prior tax audit results and rule base and automated risk scoring system (Table 4.19). Currently, as the in-depth interview with tax officials showed, ERCA has partially implemented automated tax return filing systems, and currently uses both the previous case selection system (random selection) and automated risk-scoring system concurrently. However, a compliance approach, in the form of a risk-based audit program, is not yet in place, and the audit functionality of SIGTAS is not being fully utilized for risk assessment. With random case selection system, ERCA might fight corruption at the expense of not focusing on highest risks, and treat both compliant and noncompliant taxpayers equally regardless of their associated risk. In addition, the criteria or information based selection system presupposes certain clue of noncompliance, which might be a sign of other things such as change in economic conditions in such particular sector or taxpayer type.

Regarding examination techniques, various types of information might be reviewed namely tax returns, financial statements, accounting records, customs declaration and other source documents in ERCA. The techniques used to test the accuracy of tax returns include: examination of information from third parties banks and informants; analytical review of financial statements and returns; examination of taxpayers' records; investigation through observing, discussing and reviewing documents of taxpayers; and on sight survey of the taxpayers' current business condition through physical checks of current transactions, assets and other aspects (Table 4.20). Field examination (on sight survey of business condition) is applied when a particular taxpayer needs to sell its business fixed assets or close the business.

As OECD (2006a), effective auditing requires more than verifying that a taxpayer has correctly included a particular transaction in his books of account along with the adoption of investigative approach. However, the application of investigation approach is not as such in ERCA. The accuracy of taxpayers' tax liability is determined mainly through analytical review of financial statements and returns. Thus, ERCA may not be able to determine what wealth the taxpayers have accumulated but not documented or recorded in their books of accounts and financial reports without the conduct of

appropriate investigation. It may not be also possible to ERCA to establish the completeness, accuracy, credibility, and validity of a taxpayer's declarations, disclosures and other financial arrangement.

Moreover, effective and efficient tax audit practice depends on having capable and experienced audit staff resources. Tax auditors have been employed and held their current position in ERCA based on their field of study, level of education, and training and exam attended (Table 4.21). The in-depth interview with tax officials supports this assertion, and the interview result showed that ERCA currently hired a mass of youngest employees, auditors in particular, based on their educational level and cumulative grade point average (CGPA), which is imperative to acquire successful tax auditors. However, having employees hired with high CGPA is not a guarantee for ERCA to have a qualified audit staff that might increase audit performance in terms of audit quality and rate. As a result, ERCA provides training and exam regarding tax law and tax audit issues at the time of recruitment before engaged in tax audit activities (Table 4.24). The in-depth interview with tax officials also testified that at the time of recruitment, all candidate employees are expected to attend training regarding the government policies and strategies, overall objectives and structure of ERCA, tax rules and regulations, and basic audit training (for candidate tax auditors). After the completion of the training, all the trainees are expected to take the exam (in-house tests) based on the training they attended for assessment purpose. Such assessment might help ERCA to confirm whether the trained auditors reach the required level of competency.

Further, training is not enough only during recruitment. Rather, it is essential before, during, and after recruitment based on appropriate need assessment and gap identification. As noted in the literature, competency improvements should be integrated in to normal business activities, and auditors should have been given continuous training so that their skills are kept up-to-date and relevant (OECD 2006a). However, ERCA provides inadequate training after recruitment and once the auditors held their required position (Table 4.24). The in-depth interview with tax officials also confirmed that there is no competency assessment model, and less emphasis is given for

continuous upgrading the capability and knowledge of staff resources once the employees have given and held a particular position.

As a result, ERCA does not have experienced and proficient tax auditors. As the results of the survey revealed, about 80 per cent of tax auditors have no any audit experience before employed in ERCA. In addition, about 80 per cent of the current tax auditors and investigators have an experience of less than four years (Table 4.22). This might be due to higher staff turnover in the tax authority, tax audit team in particular. The authority fails to retain proficient and well-trained auditors. As employees become more experienced, it is expected that they might become effective and need safe working environments. Hence, most tax auditors resign themselves from their position after two to four years of experience that might be due to workload without additional benefits, unsafe atmosphere in work environment, absence of satisfactory allowance for fieldwork and uneven compensation payment for similar field activities, and absence of performance based promotion.

Regarding the capability, having proper audit planning, it is reasonable to expect an office auditor to complete an average of 10 to 20 cases a month, and for field auditor to complete an average of 4 to 6 cases a month. An experienced junior tax auditor is also expected to complete about 200 cases a year (Tait 1988). However, in ERCA, an individual office (desk) auditor has performed an average of less than 10 cases a month, and an individual field auditor has performed an average less than 4 cases a month. An experienced junior tax auditor has also performed an average of less than 100 cases a year (Table 4.23). This shows that tax auditors are not at the required level of operational capability to conduct tax audit. The operational incapability of tax auditor might be due to absence of using effective pre-audit plan and inadequate audit training.

Besides, as OECD (2006a) stated, tax auditors are often required to make effective decisions under the law, effectively communicate and interpret complex tax laws, and conduct intensive examination of taxpayers' books and records in addition to their primary role of detecting and deterring noncompliance. However, in ERCA, the in-depth interview with taxpayers testified that tax auditors have no standardized

knowledge regarding clarification of unclear tax rules and regulations, and are incoherent in giving information regarding identical tax issues. In addition, tax auditors lack willingness to give advising services to taxpayers rather they simply intimidate them by raising the consequence of not being compliant. Through declaring the consequence of being noncompliant, ERCA might bring deliberate evaders (taxpayers' those not comply intentionally) to the tax system. However, compliant taxpayers could not comply with whatever sanction declared unless their tax awareness improved and be acquainted with their tax obligations through appropriate services including interpretation of complex tax rules and providing essential information for tax matters. The tax officials, auditors in particular, also fail to keep properly taxpayers' data that have been already submitted by taxpayers, and they unnecessarily request taxpayers to submit the report yet again. Such unreasonable request might create negative image about ERCA on the eyes of compliant taxpayers that affects the smooth operation of the tax system as well as increase taxpayers' burden and compliance costs so that they might hesitate to comply with the tax system in their future tax periods.

Therefore, mere classification of auditors as junior auditor, auditor, and senior auditor might not be effective in the absence of having experienced and capable tax auditors though the classification is momentous to deal with a range of complexity of audit cases. The assignment of audit cases based on experience and capability of auditors and complexity of cases might increase audit quality. However, in ERCA, such classification might not be achieve due to lack of capable and experienced audit staff resources especially for the conduct of complex audit cases.

#### **4.4. Conclusions**

The chapter has presented the results and analysis of the study along with the presentation of research objective and questions in four sections. In the first section, research objective and questions were presented to connect them with the results of the study. The second section has presented the outcomes of both qualitative and quantitative research methods adopted in the study separately. Specifically, the results of surveys with tax auditors and investigators, is-depth interviews with tax officials and taxpayers, and documentary analysis were presented. The results obtained through these

## Chapter 4- Results and Analysis

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three instruments were employed to investigate the tax audit practice in Ethiopia with respect to the suitability of tax audit type performed, the effectiveness of audit program including purpose of audit and audit rate/coverage, the aptness of audit case selection methods and examination techniques, and sufficiency of audit resources, tax auditors in particular. The findings of all data collection methods were consistent with the exception of slight difference between survey and in-depth interview results regarding audit case selection methods used. In the third section, the results of all methods were combined by pooling them together and analyzed concurrently in order to address the research objectives and questions. The analysis were made in line with the literature presented in chapter two and socio-economic realities of Ethiopia.

The previous chapter presented the results and analysis of the study. This chapter provides the conclusions and recommendations in line with the findings of the study. The chapter is structured in two sections. The first section deals with conclusions whereas the second section presents some recommendations suggested as a solution to problems that have been identified in the study.

### **5.1. Conclusions**

Taxation is key source of revenue for the government of Ethiopia followed by external loan grants and assistances. In addition, taxation is used to allocate economic resources for government's priority by directing economic agents to the development goals foreseen by the government through the incentive schemes embedded within the prevailing tax laws. Nevertheless, the performance of tax revenue is relatively poor that accounts an average of 10.76 percent of GDP during the 2004/05 - 2008/09 fiscal years, which is caused by lack of voluntary compliance mainly due to paucity of taxpayers' awareness and the weakness in the tax administration itself, ineffective audit program in particular.

A well-structured tax audit program is vital to achieve revenue objectives that ensure the fiscal health of the country, and sustain the health of the tax system by reducing tax gap through voluntary compliance improvement and additional tax collections. Further, it might provide valuable support in identifying areas of the tax law that require clarification or addressing deficiencies in the law, and to influence compliance across the broader taxpayer community at all levels.

Thus, the study examined the problems in tax audit practice in Ethiopia (the case of the federal government). The study was conducted to investigate the tax audit practice, and to identify the main problems of the tax audit program performed that affects tax revenue collection and taxpayers' voluntary compliance in the Ethiopian tax system. The study adopted both quantitative and qualitative approaches. Specifically, the techniques used in the study include survey with tax auditors and investigators, in-depth interviews with tax officials and taxpayers, and documentary analysis.

Specifically, the findings from the discussions are concluded in the subsequent paragraphs.

Tax audit program remains undeveloped with an emphasis on comprehensive and desk audit with the exclusion of other audit methodologies. There is a slight range of tax audit activities performed targeting aptly specific risks, which might result in less proportionate and measured responses in terms of additional revenue collection and voluntary compliance improvement.

Further, the audit program performed in ERCA could detect noncompliance behavior of individual taxpayers, and used as a compliance enforcement tool to collect unpaid or evaded tax return and to ensure the deterrent effect. Through audit, ERCA utilizes its enforcement powers in addressing tax revenue in arrears and evasion challenges, and makes its power visible to the community to encourage noncompliant taxpayers to comply. However, tax audit practice in ERCA is a toddler tool in improving voluntary compliance through helping taxpayers to understand their tax and customs obligations that could generate the right tax revenue at the right time.

Currently, segmentation approach is adopted and would provide one spot customer service that might result customer satisfaction, and minimizes both taxpayer compliance costs and tax administrative costs. However, tax audit program is mainly directed to specific segments and sectors those have large tax potential with less emphasis to medium and small category of taxpayers' community. In addition, the audit coverage is unsatisfactory that might be due to inappropriate audit type adopted and resource constraint.

Further, taxpayers are selected for audit based on risk criteria, and selected audit cases are expected to be performed within 22 days period regardless of the complexity of audit cases and the size of the taxpayers. Taxpayers might be repetitively audited if there is an indication of serious tax fraud and when they report less tax return than previous periods. As a result, there is unreasonably consumption of audit resources as well as increase the hardship associated with repetitive audits for fully compliant taxpayers. Corruption might also arise due to repetitive contact between the same

auditors and taxpayers. The potential amount of tax revenue that might be found with the target taxpayer and the possibility of collecting evaded tax return, is the secondary objective of tax administration, have been also considered for conducting audit.

Moreover, the case selection decision is based the information from SIGTAS, past case histories of taxpayers, third parties such as banks and informants, and intelligence team. However, the use of SIGTAS does not provide reliable decision to assure appropriate risk selection due to absence of well-organized and clean data. Further, there is no specified time range within which the taxpayers are expected to present their data. Once the data is collected, audit cases have been selected using both the previous case selection system (random selection) and automated risk-scoring system concurrently. Automated tax return filing system is partially implemented. However, a compliance approach, in the form of a risk-based audit program, is not yet in place, and the audit functionality of SIGTAS is not being fully utilized for risk assessment.

To check the accuracy of tax returns, various types of information might be reviewed namely tax returns, financial statements, accounting records, customs declaration and other source documents. The accuracy of taxpayers' tax liability is determined mainly through analytical review of financial statements and returns. However, the application of investigation approach is not as such in practice, and it might be difficult to determine what wealth the taxpayers have accumulated but not documented or recorded in their books of accounts and financial reports.

Regarding audit staff, there is no competency assessment model, and less emphasis is given for continuous upgrading the capability and knowledge of staff resources once they have given and held a particular position. There is also higher staff turnover in the tax authority, tax audit team in particular. The authority fails to retain proficient and well-trained auditors. As a result, ERCA does not have experienced and proficient tax auditors. Tax auditors are not at the required level of operational capability to conduct tax audit and professional capability to give appropriate services to taxpayers. The incapability of tax auditor might be due to absence of using effective pre-audit plan and inadequate audit training as well as their lack of willingness.

## 5.2. Recommendations

This section provides some recommendations that are suggested as a solution to mitigate the operational problems of tax audit program so that to improve voluntary compliance and to meet the revenue needs of the government of Ethiopia. Therefore, the researcher has tried to provide briefly the following recommendations:

- To increase the audit coverage and voluntary compliance having inadequate staff resources, the ERCA should adopt a wide range of audit methodologies rather than use of full comprehensive audit. The spot (issue) audit should be widely applied to increase the audit coverage, and education type audits that are not yet in place should be implemented to improve taxpayers' awareness and voluntary compliance. In addition, ERCA should give emphasis and assign adequate audit staff to investigation audit, and it is better to conduct such audit type in all branch offices.
- Tax administrators, auditors in particular, should not simply enforce and intimidate taxpayers by raising the consequence of not being compliant. However, they must foster tax compliance through improving services to taxpayers to create fair and smooth tax system with high compliant taxpayers.
- ERCA should give emphasis for all levels of taxpayer segments to improve future overall taxpayers' voluntary compliance that may affect future tax revenue, and to be capable to sustain confidence in the tax system and its administrations. All levels of taxpayer community should feel that their underreporting and other noncompliance activities have a good chance of being detected due to high probability of being audited.
- ERCA should revise the stated 22 days audit period with the consideration of the complexity of the cases and the size of the taxpayers to be audited. The authority should dispense more time for complex cases and audit of large taxpayers to properly detect noncompliance and achieve the required audit quality.

- To avoid unnecessary resource consumption and minimize compliant taxpayers' burden, ERCA should consider the inherent factors in a specific sector and economic conditions before conducting audit in consecutive audit periods on the same taxpayers that have been audited and no tax liability owed found with them in the previous period but show less tax return in the current period. In addition, the authority should give attention and preclude tax auditors from auditing the same taxpayers in different audit periods to alleviate the risk of corruption. The authority should also give priority to the detection of compliance risk rather than considering the collectability of the evaded tax return, which should be a secondary objective.
- The authority should make SIGTAS accessible to tax auditors, and should fully utilize it for risk assessment purpose. There must be also a specified time range within which the taxpayers are expected to present their report or information, to enforce especially non-volunteer taxpayers, and to get the necessary information as required for audit activities.
- The ERCA should use full risk-based audit selection strategy that rewards taxpayer compliance with a light touch approach and openly demonstrates that valuable taxpayer resource is being deployed against the non-compliant. The tax audit program that properly identify risks and focus on customers who are not complying should be implemented. Taxpayers who are complying should benefit by not being subjected to harassment and unnecessary audit activity that in turn minimizes costs of administration and reduces taxpayer compliance costs.
- ERCA should sufficiently use an investigative approach to check the accuracy of tax returns to establish what have not been recorded in the accounting system. It should use an investigatory approach to establish the completeness, accuracy, timeliness, credibility and validity of a taxpayer's declarations, disclosures, and other financial arrangements.

- Finally, ERCA should increase the number and improve the capability of total audit staff resources to achieve required audit rate and audit quality that might improve overall compliance and future tax revenue performance. There should be appropriate need assessment and employees should have been given training based on the gap identified. Auditors should have been given continuous training so that their skills are kept up-to-date and relevant. Further, the authority should supply sufficient computers and other necessary audit resources for auditors. The authority should also found a mechanism to retain the qualified tax auditors. Besides, the reason why staff resources of ERCA, tax audit team in particular resign themselves from their position after some years of experience might need a detail investigation and can be a researchable topic in the future.

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## **Appendix 1 – Tax auditors and investigators survey instrument**

Addis Ababa University  
School of Business and Public Administration  
Department of Accounting and Finance

### Tax auditors and investigators survey instrument

Dear Participant

This project is entitled “**Tax audit practice in Ethiopia: *The case of the Federal Government***”. The investigator is Getaneh Mihret who is currently an MSc (in Accounting and Finance) student at the Addis Ababa University.

The aim of the project is to investigate tax audit operation by the case of federal government in Ethiopian tax system. To supplement the data obtained from selected documents study and in-depth interview with audited firms and tax officials, the investigator seeks to gather relevant information from randomly selected tax auditors, investigators and audit directors using self-administered questionnaire.

Participation in this project is completely voluntary. Survey results will be recorded anonymously, and strict confidentiality will be maintained. Individual responses will not be identified in the investigator’s MSc thesis.

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**Part I: Background information**

1. Gender: Male  1 Female  2
2. Age:
- Less than 30 years  1 50-60 years  4  
30-40 years  2 Above 60 years  5  
40-50 years  3
3. Highest level of education achieved:
- Certificate  1 BSc/BA  3  
Diploma  2 MSc/MA and above  4  
Others  5, Please specify \_\_\_\_\_
4. Field of study (multiple answers are possible):
- Accounting  1 Economics  3  
Finance  2 Management  4  
Others  5, Please specify \_\_\_\_\_
5. Current job occupation:
- Tax auditor  1 Tax audit coordinator  4  
Tax investigator  2 Tax audit director  5  
Tax assessors  3 Others  6, please specify \_\_\_\_\_
6. Did you have any audit experience before you joined the ERCA?  
Yes  1 No  2
7. If your answer in question #6 is yes, how long did you work as an auditor?
- Less than 2 years  1 6-10 years  4  
2-4 years  2 Above 10 years  5  
4-6 years  3
8. How long did you work with your current job occupation in the ERCA?
- Less than 2 years  1 6-10 years  4  
2-4 years  2 Above 10 years  5  
4-6 years  3
9. Would you please describe your current job area, function and main responsibilities?  
\_\_\_\_\_  
\_\_\_\_\_

10. How and by what criteria the position that currently you hold is provided to you (multiple answers are possible)?

Based on your past work experience related to your position  1

Based on your field of study completed  2

Based on education level achieved  3

Based on exam and training attended  4

Others  5, please specify \_\_\_\_\_

11. Does ERCA provide training, tutor and/or exam regarding tax law and tax audit issues soon you employed before you engage in tax audit activities?

Yes  1 Usually  2 Neutral  3 Sometimes  4 No  5

12. Does ERCA perform a continuous assessment to improve the capability or competency of staff resources, auditors and investigators in particular, after you occupied the current position and engaged in the tax audit and related activities?

Yes  1 Usually  2 Neutral  3 Sometimes  4 No  5

**Part II: Questions regarding the effective tax audit program:**

13. What is the primary purpose of tax audit performed in the ERCA (multiple answers are possible)?

To check the evasion of tax  1

To ensure compliance in accordance with tax law  2

For assessment and collection of additional tax revenue  3

To educate taxpayers  4

Others  5, please specify \_\_\_\_\_

14. What are the main activities that tax auditors, investigators and assessors expected to perform during an audit period (multiple answers are possible)?

Detecting noncompliance behavior of individual taxpayer  1

Gather information on the health of the tax system including compliance behavior  2

Educating taxpayers  3

Interpreting complex tax rules and regulations for taxpayers  4

Identify areas of tax law that require clarification and amendment  5

Search for unregistered taxpayers  6

Others  7, please specify \_\_\_\_\_

No	Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Do not know
		1	2	3	4	5	6
15.	The ERCA can gather information regarding the taxpayers' compliance behavior and areas of weaknesses in the tax law through tax audit program performed.						
16.	VAT audit is closely coordinated and performed with other tax types, income tax in particular, in the ERCA.						
17.	Tax registered traders can easily understand and be aware of the rules, forms and instructions or information provided by the ERCA.						
18.	Taxpayers believe that there is a good chance of being seized in their underreporting and other noncompliance activities during an audit.						
19.	Tax audit program performed by the ERCA makes its power visible to the community and encourages noncompliant taxpayers to comply.						

20. Which category of taxpayers are most usually audited (multiple answers are possible)?

Category A  1

Category C  3

Category B  2

All of them  4

21. Which business sectors are most usually selected for tax audit (multiple answers are possible)?

Manufacturing enterprises  1

Service enterprises (professional services, hotel and hospitality etc)  2

Merchandising enterprises  3

Construction and real estate sectors  4

Financial sectors  5

Others  6, please specify \_\_\_\_\_

22. What is the reason behind for the selection of the taxpayers that you have selected in Q #20 and 21?

Taxpayers have higher compliance risk  1

Taxpayers have large tax potential at risk  2

Taxpayers have no effective record or bookkeeping  3

It is difficult to tax taxpayers  4.

Others  5, please specify \_\_\_\_\_

**Part III: Questions about the types and needs of tax audits**

23. What types of audits are usually performed by the ERCA (multiple answers are possible)?

Desk (office) audit  1

Advisory audit  5

Field audit  2

Registration check  6

Comprehensive audit  3

Refund audit  7

Issue audit  4

Fraud investigation  8

Others  9, please specify \_\_\_\_\_

24. When and in what condition the audit type that you have selected in Q #23 above would be conducted?

25. Is there a responsible unit at the ERCA for the investigation of serious fraud or evasion?

Yes  1

No  2

26. How those responsible units in question #25 decide about the need to investigate a certain taxpayer?

27. If your answer is yes to question #25, when and how an investigation on a selected taxpayers is conducted?

**Part IV: Questions regarding tax audit resources**

28. The ERCA has enough audit staff resources to perform onsite audits on all taxpayers or comprehensive crosschecking of invoices or transactions.

Strongly agree  1

Agree  2

Neutral  3

Disagree  4

Strongly disagree  5

Do not know  6

29. How many audit cases on average an individual (one) desk auditor has expected to complete in a month at the ERCA?

Less than 10 cases  1

20 to 30 cases  3

10 to 20 cases  2

Above 30 cases  4

30. How many audit cases on average an individual field auditor has expected to complete in a month at the ERCA?

Less than 4 cases  1

7 to 10 cases  3

4 to 6 cases  2

Above 10 cases  4

31. How many audit cases on average an individual experienced junior tax auditor has completed during the year 2009/10 at the ERCA?

Less than 100 cases  1

181 to 220 cases  4

101 to 150 cases  2

Above 200 cases  5

151 to 180 cases  3

**Part V: Questions regarding audit case selection methods**

No.	Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Do not know
		1	2	3	4	5	6
32.	Tax auditors and investigators have good access to information held by the taxpayers and others.						
33.	Taxpayers cooperate to give essential information necessary for performing an audit.						
34.	Taxpayers comply with the tax system in Ethiopia.						
35.	Taxpayers (auditee) are selected based on their associated compliance risk.						
36.	Tax audit is a sole treatment for compliance risk available to ERCA.						

37. If you do not agree to statements #32 and #33, how tax auditors and investigators can get the required information?

By reviewing the previous case histories of taxpayers concerned  1

Using information from third parties such as financial institutions  2

Using business sector profile  3

Others  4, please specify \_\_\_\_\_

38. If you do not agree to statement #34, how the noncompliance behavior of taxpayers is characterized (multiple answers are possible)?

Non-filing tax returns  1

Fail to registered when required  2

Underreporting of income  3

Registering of ineligible taxpayers  4

Non-payment of tax return on time  5

Others  6, please specify \_\_\_\_\_

39. What are the main reasons for the noncompliance behavior of the taxpayers to arise (multiple answers are possible)?

Taxpayers' deliberate action  1

Taxpayers' carelessness  2

Others  5, please specify \_\_\_\_\_

Taxpayers' lack of awareness  3

Weakness in tax administration itself  4

40. Do taxpayers that were audited in the previous audit period and found no tax liability owed during an audit be selected for audit in the current audit period?

Yes  1    Usually  2    Neutral  3    Sometimes  4    No  5

41. If your answer is yes to question #40, when and in what condition those taxpayers may be audited?

When taxpayers reported tax returns less than previous period return  1

When serious tax fraud case is found  2

When taxpayers have large tax potential  3

Other  4, please specify \_\_\_\_\_

42. Would you please mention the criteria and procedures used to identify the highest risk taxpayers?

43. Does an individual tax auditor or investigator perform the audit work repetitively the same business in different audit periods?  
 Yes  1 Usually  2 Neutral  3 Sometimes  4 No  5
44. What are the possible techniques used by the ERCA in selecting taxpayers to be audited (multiple answers are possible)?  
 Taxpayers are simply selected randomly  1  
 Auditors select audit cases manually based on their own knowledge of taxpayers' behavior and environment  2  
 Data mining that identifies patterns of noncompliance in the past and current  3  
 Statistical techniques using prior tax audit results in conjunction with taxpayer data  4  
 Rule base and automated risk scoring system that identifies risk of noncompliance  5  
 Others  6, please specify \_\_\_\_\_
45. Is there any rule in the ERCA that requires the audit work to be started and completed within a predetermined timeframe?  
 Yes  1 Neutral  2 No  3
46. If your answer is yes to question #45, are taxpayers aware for this rule? How substantial audit frauds that found out of the audit period could be treated?  
 \_\_\_\_\_  
 \_\_\_\_\_
47. Does ERCA consider the amount to be collected by audit and the collectability of tax return assessed for the purpose of conducting tax audit?  
 Yes  1 Usually  2 Neutral  3 Sometimes  4 No  5
48. Which type of tests are conducted at ERCA to check the accuracy of tax returns (multiple answers are possible)?  
 Review of financial statements and returns  1  
 Observing, discussing and reviewing documents of taxpayers  2  
 Physical checks of current transactions, vouchers, assets and other aspects  3  
 Examination of taxpayers record such as books and documents  4  
 Examination of information from third party such as financial institutions  5

49. Could you state when and in what conditions the tests that you have selected in Q #48 are conducted?

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50. Do you have any ideas, opinions and suggestions that have not been included in the aforementioned questions?

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**Thank you for your cooperation**

## Appendix 2 - Audited taxpayers in-depth interview instrument

1. Are you aware of about the tax rules and regulations of Ethiopia? Have you been informed by tax administrators about the new rules and regulations in the Ethiopian tax system?
2. Do you get clear instructions, understandable forms, assistance and information as necessary from ERCA?
3. How do you evaluate the capability and experience of tax administrators, auditors and investigators in performing audit work, and their willingness and capability to help taxpayers through advising and other services? Do you get advice and others services regarding the procedures of tax payment, book and record keeping, filing of tax returns and registration procedures and requirements?
4. Do you believe that illegal traders come to the system through tax audit and investigation?
5. Do you think that ERCA has the capability to seize those businesses operate in illegal economy? Could you tell me the how those taxpayers motivated to operate in illegal way?
6. Have you been audited in consecutive audit periods? If so, how do you think the reason behind this?

### Appendix 3 - Tax administrators in-depth interview instrument

1. What is the primary purpose of conducting an audit?
2. How the decision to audit or investigate a certain taxpayer is conducted? What inference or criteria considered for such decision?
3. Could you tell me the level of taxpayer's tax awareness and compliance behavior for Ethiopian tax system? If they are not aware, what ERCA plans to do regarding awareness creation and compliance improvement?
4. Do you believe that ERCA has currently collecting the potential amount of tax revenue? If yes, how is it achieved? If not, could you tell me the reason behind, and on what audit cases should ERCA concentrate in its audit work?
5. How and in what condition desk audit, field audit, comprehensive audit, single audit, advisory audit, registration audit, record keeping audit, refund audit, and fraud investigation is performed in ERCA? Which audit type is mostly performed? Why could it be?
6. Which category of taxpayers and sectors are usually selected for tax audit? What would be the reason behind this selection?
7. How audit cases are selected? What are the bases considered for selecting the audit case?
8. How the highest risk taxpayers could be identified?
9. Does ERCA consider the amount and collectability of tax returns assessed for conducting an audit work?
10. How and by what criteria audit cases are assigned to senior and junior auditors?
11. What are the primary criteria and preconditions to employ individuals as a tax auditor, investigator, director, and to participate in tax audit activities?
12. Are there any exam, tutor, and training to hire an auditor or investigator? If so, when and how the trainings and exams are provided?

13. Could you tell me the required capabilities of auditors, investigators and audit managers in ERCA?
14. Is there any continuous assessment on competency of tax audit staff? If yes, who performs the assessment? When and how these assessments are conducted? What about the continuous knowledge upgrading processes of staff resources?
15. How long an individual tax audit employee stays on average in ERCA? Is there a possibility of tax auditors and investigators resign themselves from their position in ERCA? Would you tell me the reason behind this?
16. How the rank of junior and senior auditors is categorized? When and how do the junior auditors promote to the position of senior auditors?