ST. MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

THE ASSESSMENT OF TAX ADMINSTRATION IMPLEMENTING AUTOMATION -THE CASE OF LARGE TAXPAYERS BRANCH OFFICE (ERCA)

BY

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APRIL 201

ADDIS ABABA,ETHIOPIA

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DECLARATION

I, the undersigned, declare that this thesis is my original work and has not been presented for a degree in any other university, and that all source of materials used for the thesis have been duly acknowledged.

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Place and Date of Submission:

_____

ENDORESEMENT

This thesis paper has been submitted to St. Mary's University, School of Graduate studies for the examination with my approval as a University advisor.

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Advisor Signature

St. Mary's University April, 2015

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LIST OF TABLES

List of Appendices

List of Abbreviations

ERCA	: Ethiopia Revenues and Customs Authority
FIRA	: Federal Inland Revenues Authority
LTO	: Large Tax Payers Office
WTO	: World Trade Organization
E-TAX	: Electronic Taxing
IS	: Information System
IRS	: Internal Revenue Service
IT	: Information Technology
TA	: Tax Administration
ICT	: Information, Communication and Technology
SIGTAS	: Standard Integrated Government Tax Administration System
GDP	: Gross Domestic Product
GTP	: Growth and Transformation Plan
IMF	: International Monitory Fund
MNEs	: Multinational Enterprises
MoFED	: Ministry of Finance and Economic Development
OECD	: Organization for Economic Cooperation and Development
TIN	: Tax Identification Number
VAT	: Value Added Tax

ABSTRACT

Modern tax administrations proactively facilitate compliance by simplifying processes, providing information, education, and support to taxpayers, and directing their limited compliance monitoring and enforcement resources to the areas of greatest risk to revenues. Efficiency of tax administration is defined as costs, tax clearance time and effectiveness of revenue collection.

However, the systems are tied with challenges because of lack of awareness creation from the side of authority, incapacity of supplier for the sales register machines, lack of awareness in implementing tax automations from the side of the taxpayers.

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

Mixed methods of both qualitative and quantitative approach are applied in that the relevant data required for the study are collected through questionnaires and focus group interviews. Samples are selected by use of random sampling technique.

From the response obtained, the participants of the information systems encountered problems by each of them are identified. The major findings of the study are lack of coordination among participants ,lack of knowledge and commitment to deliver satisfactory service ,lack of infrastructure , delay in service delivery of maintenance of sales register machines , knowledge gap exists on suppliers of machines, the users of systems and tax officers , and lack of awareness creation by tax authority. From this, it is concluded that to solve the problems encounter the participants of the systems need of coordination among the participants , it needs continues education and training and awareness creation by tax office are essential for success of the systems.

In this study, the participants of the systems provide their respective responses for the challenges they are facing. Based on the findings, the necessary recommendation for the implementation of tax automations by the tax authority are the tax authority and tax office must conduct self examination and fill their gap, should change their approach of awareness creation, the tax office should set up incentive mechanisms to bring them in to the systems, there should be active cooperation and participation among the participants are the basic ingredients to realize good tax administration, and the attitudes of all the participants (include taxpayers, Suppliers of sales register machines and Staffs of Tax office) are required to change.

TABLE OF CONTENTS

The Assessment of Tax Administration implementing Automation- The case of Large Taxpayers Branch Office- (ERCA)

Chapter One

1. Introduction

Tax is the primary sources of income for the Federal Government of Ethiopia and it determines the level of government expenditure on various public services, development programmers and projects including state budget. (ERCA February 2014) Without generating efficient revenue it is difficult for the government to implement the planned level of public spending. Almost a decade back, the government of Ethiopia has taken measures to improve the policies and administration, as a result obsolete tax legislation and procedures were replaced by modern viable tax policies and administrations.

In the era of globalization, most developing countries want to become integrated with the international economy. On the other hand, they face significant challenges in this pursuit, including the need to increase tax revenues. Hence, developing countries tax policy makers have to analyze the current conditions in the country and establish the appropriate tax policies that can raise sufficient revenue. Ethiopia, like other many developing countries, has increasingly begun to restructure its tax systems for this specific purpose.

Despite numerous tax reforms that were intended to improve the economic and social situation by supporting infrastructure and increasing the quality of public goods provided by the government, the situation in Ethiopia remains fragile, and the country remains among the poorest in the world. Based on the current approved budget for the financial year 2014/2015, a widening budget deficit of 8.2 billion Birr compared to the previous financial year of 6.36 billion Birr was reported. The budget deficits on this scale indicate the review of the existing tax policy of Ethiopia to cultivate more tax revenue.

One of the most flexible ways to raise per capita incomes and to support increases in real GDP growth rates is through taxation. Taxation is a sovereign right of the state used to transfer resources from private to public use in order to achieve the economic and political goals of society. In other word taxation is not the means through which governments can develop resources to finance public expenditure. Developing countries make

heavy use of domestic and foreign borrowing, but this is not an adequate alternative to increasing tax revenues. The majority of the people in developing countries receive very low incomes, if any, from which the government cannot borrow. And it may not be constructive for a government to rely on foreign aid as there are many deleterious consequences flowing from aid dependency. Thus taxation emerges as one of the most effective domestic tools that governments have direct control over to develop the resources needed to meet their social, economic, and political goals.

Developing countries would like to increase their tax-to-GDP ratios in order to reduce budget deficits, improve the services they provide, and optimize the effectiveness of their tax structures. Like most developing countries, the government of Ethiopia has embarked on numerous tax reforms over the last one decade. In order to achieve the objectives of various development programs of the Government, the strong means of revenue collection has to be well-organized and reliable. Hence, Ethiopia has introduced a tax reform program since early 2001 to modernize its taxation system. The tax reform program of the country generally consists of tax policy and legislation project, taxpayer's identification (TIN) project, Presumptive Tax project, value added tax project, reorganization and work producer development, obligatory use of sales register machines, electronics taxing, purchase declaration using on line system , electronics payment and taxpayer's education project.

To enhance tax revenue the government of Ethiopia introduced and also implemented the tax reform program with the assistance of foreign international organization. Hence, this study tries to assess the challenges facing developing countries in general and Ethiopia in particular by implementing their tax reform projects.

The objective of the study, therefore to review and examine the effectiveness of tax collection with regard to a better tax payer compliance in the case of large tax payer office of (ERCA) by implementing tax automation systems like obligatory use of sales register machines, electronics taxing, purchase declaration using on line system , electronics payment to reach a better research result study other country experience and use compare and contrast of the performance within the annual report and reference of the some East Africa countries of LTO.

The Assessment of Tax Administration implementing Automation- The case of Large Taxpayers Branch Office- (ERCA)

1.1 Background of the study

As a result of a tax reform made for the last 15 years since 2001, Ethiopia recorded growth in the domestic revenue. The aim of the government's fiscal policy in FY 2012/13 was strengthening domestic revenue mobilization, reducing domestic borrowing and increasing expenditure on battling poverty. As per a report Mofed, (2012/13), aggregate spending as a share of GDP declined slightly from 18.3.0% of GDP in 20011/12 to 16.7 % of GDP in 2012/13. The share of anti-poverty spending in total expenditure has been rising and reached 77% in 2012/13 from 57% in 2004/05..

The plan of the government is to cover the government expenditure by domestic revenue sources. Currently the main sources of expenditure financing are domestic revenues and external grants. The government is committed to expanding its domestic revenue mobilization efforts to ensure fiscal sustainability. In 2013/14 it continued to implement measures aimed at improving tax administration and enforcement.

Tax revenues increased by 26.35% in 2013/14, compared with the previous year. However, the domestic revenue to GDP ratio increased only marginally from 11.2% in 2012/13 to 11.3% in 2013/14 because of a 34% increase in nominal GDP. Currently the tax to GDP ratio of Ethiopia is almost the least from all sub Saharan African countries Average (20%). As per Mofed's report 2013/14, in 2013/14 it accounts 14.5% which is greater than the previous year 20012/13 (13.51%). This may give a clue that the poor tax policy may implemented, like other developing countries.

Hence, to find out some sort of solutions, it is worthwhile to examine the effectiveness of tax collection with regard to a better tax payer compliance in the case of large tax payer office of (ERCA) by implementing tax automation systems like obligatory use of sales register machines, electronics taxing, purchase declaration using on line system, electronics payment and the challenges of tax policies facing developing countries in general and Ethiopia in particulars. A number of tax administrations in the world have established special system to administer their large tax payer. In the last two decade in sub-share Africa country most countries follow the modern tax administrations system .For most tax administration function relating to such tax payers, including collection, enforcement of tax arrears ,audit and information system administration.

1.2 Background of the organizations

The idea of Large taxpayer unit begin implemented in the world seven decade before when the Organization for Economic Cooperation and Development (OECD) countries introduced special tax audit operations for large tax payer. However in Ethiopian it was not late than fifteen years (Plan report FIRA 2001). The reason is according to (February 2011 Report) that the Ethiopia tax policy is geared towards promoting in investment supporting industrial development and broadening the tax base and decreasing the tax rate in view of financing the ever growing needs of government expenditure. Because of the strong need of financing government expenditure the structure is organized an under FIRA (Federal Inland Revenue Authority). However, after the implementation of Business process reengineering method the office is reorganized under Ethiopian revenue and customs authority (ERCA), Plan report of February 2011).

According to the Article 3 of the proclamation no 587/2008 the authority is looked upon as an autonomous federal Agency having its own personality the authority came in the merger of the Ministry of Revenue, Ethiopian Customs Authority who formerly were responsible to raise revenue for the federal government and to prevent contraband reasons for the merge of the forging administrations in to a single autonomies. Authority has vision of to be a leading fair and modern tax and customs administration in Africa by 2020/21 that can finance the Government expenditure through domestic tax revenue collection. Also ERCA's mission statement set out its main purpose that its operations ought to

be supportive of the country's economic and social development. Based on the vision and mission the Authority took a transformation of change management that helps to secure its goal with point rating method of structure. ..

The office structure of LTO branch is consists of with four core and one supporting processes includes core process of collection, Audit, Customer service and law enforcement and the supporting process is resource administration process. By now the human resource of the office which consists of 60% of the structure required staff of 436, of this 73% are professionals.

1.3. Statement of the problems

In fact, in modern tax administration when tax administration is organized a unit for large tax payer it will have a better performance of revenue collection .It is beneficial to set up large tax payer office (LTO) that should be allocated a large share of administration resources than their numbers would suggest. Indeed, LTO are so popular among advisors on tax administration policy that, without an LTO, a tax administration is unlikely to be called modern. However, LTO is a structure for large tax payers, not only for the functional but also a better management of complaints. During the study the number of large tax payers is 1215 or 3.77% by July 7, 2014(Report Aug 2014 ERCA).Where this data show us that the authority give focus for the treatment of effectively organizing scarce human, resource, real estate ,equipment and financial to achieve this purpose.However, the fulfillment of structure and utilizing resource is not by itself a solution for effectiveness and efficiency of tax administration. On other hand to have a better revenue performance, as (Andrew Okello 2014) stated that the administration need a better efficiency that help to reduce tax payers compliance costs, eliminate duplication and decrease tax administration costs by implementing information systems. In addition to this it creates effectively come through a better tax payer service, more collection enforcement and more effective audit programs.

In Ethiopian modern tax administration ,use of information system has brought in to practice not more than 15 years (ERCA 2013 ANNUAL REPORT) that provides including: tax registration and filling, tax assessments and collection by operation of Standard Integrated Government Tax Administration System (SITGAS).After that ERCA introduced the other information systems such as sales register machines in year 2002 and in November 2013 purchase declaration on line system and then recently electronics filling in the year Feb 2013 for large tax payers. In near feature, ERCA has a plan to implement additional information systems like electronic registration (e-Registration) module; taxpayers are able register to obtain tins online and e-payment that enable collection of tax through electronics.

To establish efficient tax administration and information system in all tax types Standard Integrated Government Tax Administration System (SIGTAS) has been implemented fully at the federal level. In

addition, to create a harmonized tax administration among federal and the regions, the authority is deploying SIGTAS and obligatory use of sales register machines in the regional state tax collecting bodies..In addition to this it creates effectively come through a better tax payer service, more collection enforcement and more effective audit programs.

Whereas the revenue performance is at last is vital issue, for this case (Andrew Okello 2014) out of the selected eight east Africa countries .Currently the tax to GDP ratio of Ethiopia is almost the least from all sub Saharan African countries Average (20%). Ethiopia is the least which tax to GDP ratio is not grow more than 14.2% whereas, Kenya tax to GDP is 17.7%. But government plan transform and grow revenue by 2014/15 to reach tax -to GDP about 17% which most sub-Saharan Africa already implement.

Hence, so as to create efficiency and effectiveness in tax administration and revenue collection it is vital to address the administration problem that affect it, however, this study is focused on LTO Effective tax administration of large tax payers by implementing automation tools such as sales register machines, (SIGTAS), purchase declaration of using online system , E-TAX(electronics filling tax report online) that contributes for revenue collection in resulting taxpayer compliance.

In general the tax administration problem creates lack of performance a revenue collection because of when there is a gap on poor quality service and follow up , when the audit technique is not depend on risk criteria, when there is shortage of use of information technology , when analysis information is insufficient to make various tax assessment decision. In addition to these attitudinal and skill problems on both sides of tax administrator and taxpayer have been observed as major challenges for not using the information systems at full scale.

1.4. Research questions

The following specific research questions (RQ are stated):

RQ1- How could be the system of tax assessment and collection and audit have effective to the revenue improvement by use of SIGTAS, electronics filling, online declared purchase and Z- Report of sales register machines?

RQ2- What are the implication on tax collection by use identify information technology systems of E- tax, output of Z- Report using sales register machines, output of reported online purchase declaration and SIGTAS ?

RQ3- What are the main problems of tax payer's compliance participating for revenue collection?

RQ4- To what extent Information technology has a role to maximize tax collection by use of E-taxing and Z- Report methods for monthly reports?

1.5. The objective of this study

The intent of this study is to see the effectiveness and efficiency of tax collection, complaints management and administration of large tax payer's office in ERCA. Thus, the study accomplished the following broad objective in line with the problems stated in the preceding section.

1.5.1 General objective

To assessing the challenges faced by both taxpayers and tax administration in implementing the tax automation by investigating the performance of tax collection and tax assessment by use of information technology systems of sales register machines, E- tax, by use of purchase declaration system and SIGTAS in the large tax payer office of ERCA federal tax system.

1.5.2 Specific objectives

1. To identify the system of tax assessment and collection and audit have effective to the revenue improvement by use of SIGTAS, electronics filling, online declared purchase and Z- Report of sales register machines.
2. To identify information technology systems of E- tax, output of Z- Report using sales register machines, output of reported online purchase declaration and SIGTAS that are fully implemented for tax collection and audit.
3. Identifying the main problems of tax payer's compliance participating for revenue collection.
4. To identify Information technology has a role to maximize tax collection by use of E-taxing and Z- Report methods for monthly reports?

1.6 Significance of the study

The primary use of this research is the LTO (in ERCA). The office might able to see its level and performance of tax collection and learn some lesson and build up some corrective measures for the weakness based on recommendation . Further, the study has paramount use for different stake holders who are interested for such as government agencies and business association.

Finally, the study might have invaluable importance for future research that needs to be conducting a study in this and related fields.

1.7. Scope and limitation of the study

The study focused on the effectiveness and efficiency part on revenue collection of tax administration and voluntary compliance by the means of implemented tax automation systems of taxpayers of LTO in case of Federal Government excluding regional governments. Due to time and resource constraint the researcher excluding regional governments, medium and small tax payer. The study has examined tax assessment and collection practice, and focuses on by use of tax automation tools such as electronics taxing, use of sales register machine and online declaration of purchase that are useful to success its plan. In addition to this by use of tax automation, the effectiveness and efficiency of managing large tax payer to improve voluntary compliance and quality of service to customer and stack holder.

Thus, the study is not without limitations. The major limitation is the wide cover of the branch office and the number of tax payer incorporating to the tax collection practice. In addition the study has lack of cooperation of the respondents to complete filling the questioner timely. Specifically, unwillingness of respondents to provide answers for questioners and hard to get the required information from the respondents. It also difficult to get organized and well developed documents.

1.8 Organization of the paper

This study presented in five chapters. The first chapter dealt with introduction including background of the study, statement of the problem, objective of the study, research question, methods adopted, significance of the study and scope and limitation of the study.

The related literature review presented in the second chapter. In the third chapter, the research design and the methodology adopted and techniques used in data collection and **analysis. Subsequently, the fourth chapter discusses the results and analysis of the findings of the study. Finally, the fifth chapter presented summary , conclusion and recommendations on the bases of the findings.**

Chapter 2

Revew of Related Litreature

In the previous chapter the main problems and objectives addressed in the study .This chapter presents the review with related literature on focus on the area of large tax payer on tax collection ,audit and assessment,registration and use of information tecnology,managing large taxpayer and how handle tax payer compliance .On the other hand how the the structure should look like, what are the major function of the organiztion, why are counries select the large taxpayer office. The litrature asses different experience and reveiew of studies which help to answer or justfy the problem.

2.1 Theoretical underpinning

2.1.1 Modernization of Tax Administration

Modern tax administrations have limited resources and recognize that effectively following up with the obligations of every taxpayer is a costly task. Rather than 'policing' tax compliance, modern tax administrations focus on three key objectives: facilitating voluntary compliance, selectively monitoring compliance, and selectively enforcing compliance.

Facilitating voluntary compliance: Modern tax administrations proactively facilitate compliance by simplifying processes, providing information, education, and support to taxpayers, and directing their limited compliance monitoring and enforcement resources to the areas of greatest risk to revenues. They adopt a compliance risk management approach that recognizes a spectrum of compliance behavior and an opportunity to foster a cooperative relationship with taxpayers. This approach recognizes that tax administrations must be thoughtful in how they deploy their limited resources. Rather than focusing on enforcing compliance throughout the compliance risk spectrum, tax administrations focus on enforcement in areas of greatest risk and facilitate voluntary compliance in remaining areas.

Monitoring compliance: Tax administrations utilize information systems to monitor taxpayer accounts and an audit strategy to detect non-compliance. A highly visible audit program is essential to ensuring that taxpayers understand and are exposed to the consequences of non-compliance. An audit strategy that focuses on the areas of greatest risk to revenues not only increases the return on the use of limited audit and other compliance resources, but also facilitates voluntary compliance by reducing the intrusion of the tax administration into the affairs of compliant taxpayers.

Enforcing compliance: Traditionally, tax administrations have relied on recourse to legal remedies to enforce taxpayer compliance. Today, tax administrations focus on facilitating and encouraging voluntary compliance. However, where appropriate, the full rigor of the legal system is brought to bear on taxpayers who do not comply, thereby instituting some level of uniformity in the application of the law and a perception of fairness among taxpayers. (Ward M. Hussey and Donald C Lubick, *Basic World Tax Code and Commentary*, Harvard University, International Tax Program,1996.

2.1.2. The Role of IT in Tax Administration

Historically, the most prevalent use of IT systems in tax administrations has been to underpin the core tax administration tasks of processing returns and payments and collecting relevant information. The 'core tax' component of contemporary IT systems continues to provide support for these tasks, enabling the tax administration to move away from heavy manual processing and to direct its resources to facilitating, monitoring, and enforcing compliance. Today, IT also facilitates voluntary compliance by opening multiple interactive and electronic channels with taxpayers. (Malcolm K. Sparrow, "Imposing Duties, Government's Changing Approach to Compliance", Greenwood Publishing Group, 1994)

With respect to compliance monitoring and enforcement, the 'compliance performance system' of modern IT systems provides support to the tax administration's audit and collections function in collecting and managing information to target areas, where non-compliance poses greatest risks to revenues. In addition, as with any organization, the 'management information system' (MIS) component of the modern IT solutions facilitates decision making by getting the right information to managers and staff.

2.1.2. 1 Core Tax System

The core tax system is the central system of record in a tax administration and the primary enabler for automation and straight through processing. It provides technology support, at varying levels, to all functions of the tax administration: processing of registration filings and issuing TIN; validating and processing returns and payments received through different channels; maintaining the taxpayer's accounts; providing tools to identify and pursue delinquent taxpayers; automating appeal tracking; and providing taxpayer service staff with access to taxpayer information to enable a better level of service to taxpayers, among others. The following are examples of the type of IT support to each of the tax administration's functions.

Registration: Registration is the process, by which the tax administration collects basic taxpayer identifying information, such as names, addresses, and legal entity types. This information allows the tax administration to know who its taxpayers are, where they are located, and whether they are active or inactive. Modern tax administrations also collect compliance information, such as business activity types or estimated turnover, to plan future compliance activities. During registration, most tax administrations issue a unique TIN and a registration certificate, and provide the new taxpayer with information on his or her filing and payment obligations.

The basic registration functionality of a tax IT system includes the storing and maintenance of taxpayer identifying information, the automatic issuance of tins and taxpayer certificates, and the automatic determination of taxpayer filing requirements. Effective registration with tax IT systems uses unique tins to facilitate exchange of information between government agencies to ease the detection of noncompliance; integrates registration across taxes to allow for a single view of the taxpayer during audit or collections; centralizes the registration database to allow for effective non-compliance monitoring; provides a single facility to the taxpayer to register for all taxes to simplify compliance; and interfaces with the e-tax system, allowing new taxpayers to register online. A single centralized taxpayer registration database also enables proper planning, allowing the tax administration to rationalize staffing and resources based on the size and geographic location of the active taxpayer population.

Many of these tasks would be impossible without IT. For example, an IT system can automatically verify that a newly issued TIN is, in fact, unique, while the same verification would be nearly impossible manually if the taxpayer population is large.

Return, payment, and refund processing: Filing and paying are the two primary obligations of the taxpayer. Returns and payments require significant efforts from the taxpayer and from the tax administration. Their smooth processing reduces costs to the tax administration, reduces risks to the flow of tax revenues, and increases certainty with the taxpayer, which improves the perception of fairness among taxpayers and facilitates voluntary compliance. Tax IT systems that handle the processing of returns and payments must quickly and accurately capture and validate taxpayer data from paper and electronic documents to electronic transactions. For example, during paper return processing, tax administration staff will enter major transactions from the tax return into the tax system. During payment processing, payment transactions may similarly be entered into the system, although in most countries it is common to allow payments through Information is at the heart of an organization's management system. In particular, information is one of the most vital resources an institution has as it aids: internal operations; service delivery; and the dissemination of results etc. Against this backdrop, tax administrations around the world have accorded import to enhancing their information systems through initiatives such as: re-engineering of work processes; re-designing systems and reporting formats; and automation with the aid of ICT. Specifically, in the early 1990s, the scope of modernization of the public sector through the application of ICT expanded electronic provision of government services and activities (Bovaird, 2003).

The remainder of this note seeks to give the reader an appreciation of the practical application of electronic government (e-government) in tax administrations. Thereafter, the paper presents some of the key obstacles to ICT system sustainability, and associated measures needed to mitigate them.

ICT is used to enhance performance in revenue administrations, for example, by:

(1) Providing readily accessible historical data;

(2) Reducing errors, processing times and costs;

(3) Improving client service and promoting voluntary compliance and hence increasing Revenue collections – largely by making it more users friendly and convenient to file tax returns and pay any amounts due;

(4) Minimizing rent seeking opportunities by decreasing the level interaction between Taxpayers and revenue administration staff; and

(5) Aiding better decision-making (Smith, 1969);

2.1.3 Tax Automation

The automation is pivotal to the provision of services. In the area of customs, trade facilitation is a principal service. Trade facilitation "involves the simplification, standardization and harmonization of procedures and associated information flows" involved decision-making.

Intelligence tools and processes in decision-making are probably the most sophisticated ICT enabled applications. They are increasingly used to raise revenues by capturing incidences of non-compliance with minimal manual effort. Intelligence tools and processes rely upon automated data matching, precedent databases, campaign management and sophisticated rules based systems. Automated data-matching uses information from several records (including third party information) to verify the accuracy of information provided by taxpayers. A precedent database informs the formulation of tax rulings.

Lastly, sophisticated rules based systems: "are used to define what actions should be taken (for example, send letter A to taxpayer X, while letter B should be sent to taxpayer Y). Business rules provide the tactical detail about how strategy translates into actions(Inland Revenue Department of New Zealand, 2009).

Automation based approaches have become an important vehicle for achieving efficiency in tax administration. Hence, automation impacts on the efficiency of tax administration. Efficiency of tax administration is defined as costs, tax clearance time and effectiveness of revenue collection. Replicating what other 90 nations have done, several studies have identified automation as a predictor of efficiency and research shows a link between customs administration efficiency and automation

(Engman, 2005). This is backed by the evidence from URA indicating that the tax administration costs for the

period 2005/2006 were 77.2% higher than the budgeted cost while for the period 2006/2007 they exceeded the budgeted cost by 112.7%. Further, URA continued to witness tax processing and clearance delays, despite its use of computer programmer transfer electronic information required by tax authorities to authenticate tax declarations, accurate assessment of tax dues, increased time efficiency, reduced tax administration cost, and improved effectiveness of revenue collection (Sykesville, 2003).

Recent studies associate a significantly positive impact of automation on containing the high cost, time inefficiency and ineffective manual procedures of tax administration and revenue collection, corruption, delays and computing errors (Vasudevan, 2007); Peled (2000);Zineldin(2007).These scholars posit that automation is an avenue to efficiency and effectiveness in terms of clearance time and cost of revenue collection. Except a few recent reports highlighting the importance of automation in the performance of organization, no known research has assessed the impact of automation and information adoption in customs tax administration in 2242 Afr. J. Bus. Manage. Uganda.

Tax administration is rooted in the theory of revenue exaction which Albright (2008) describes as a corollary that gives an undisputed justification of the positive theory of the state and its relationship with the market economy. Though Thomas (2008) explains the importance of the theory of revenue exaction in a more succinct manner.The critique against the revenue exaction theory is directed at the fact that despite its providing a rational basis for a taxation mechanism, it is silent about what this mechanism is (Gunning, 2007). Additionally, how should it be conducted in order to achieve the desired administrative efficiency defined in terms of time lag, cost and effectiveness in terms of revenue collection (Gunning, 2007). The theory is therefore, insufficient in underpinning taxation, tax administration, and how this administration can be enhanced by automation. It needs to be complimented by the efficiency theory and the effectiveness paradigm both of which provide the rational basis for adopting automation in tax administration (WTO, 2007).

Automation of tax administration is derived from the general concept of automation, a concept that delineates a process of having machines to accomplish tasks hitherto performed wholly or partly by humans (Fox, 2001; Gutierrez, 2006 and 2008; Kochan, 2005). Computerization aids the conduct of complex processes accurately,

efficiently and effectively (Hollingum, 2006, 2007). Shivakumar (2007) as well as Gutierrez (2008) emphasize the appropriate application of automation to tax administration.

Automation of tax administration allows tax data entry, automated processing, computation and analysis as well as automatic production of tax reports and feedback required for control and risk management purposes (Moore, 1999; Holniker, 2005; Partch 1997). According to Vasudevan (2007), automation of tax administration includes developing powered computer programmes to carry out tax assessments and computations; and to determine tax dues at high levels of speed and accuracy (Guido, 2007). (African Journal of Business Management Vol. 4(11), pp. 2241-2246, 4 September, 2010 Available online at http://www.academicjournals.org/AJBM ISSN 1993-8233 ©2010 Academic Journals.

Firstly, the process of issuing blank return forms and receiving completed returns is costly and slow. Tax administrations using the manual system spend enormous amounts of time and financial resources to print blank return forms and fold and stuff these forms in envelopes (in many instances, temporary staff are recruited). The process is delayed further as the mailing system in many countries is slow and often the form reaches the taxpayers after the end of the filing period. Taxpayers also spend time repeating entries, which they may maintain electronically, on the manual returns.

Secondly, most taxpayers in these tax administrations make payments (in person) at the tax office, treasuries and at the bank. The payments in tax offices and treasures result in very long queues and the need for larger public service areas and additional cashiers to receive and process payments. A high volume of checks are returned by the banks, for a ‘return fee’, and staff must be assigned to resolve returned check issues with the taxpayers. Last but by no means least, is the slowness and inaccurate nature of the return processing system. Data entry for individual tax returns for any given tax period can take several months and in some cases up to two years, as the administration re-enters and reviews all the entries completed on each tax return. Irrespective of the reviews, there are several unspotted data entry errors each year, much to the annoyance of the taxpayers.

The potential for e-filing and e-payment is linked to other electronic processes in the tax administration. For example, information can be made available on-line and on websites for taxpayers. Taxpayers can also register and provide other relevant information (e.g., change of address and business) while the data stored by the administration can be used to improve audit and enforcement procedures through the implementation of risk management systems.

In summary under a manual system: (1) Taxpayers have to follow complex procedures to manually prepare their tax returns, leading to a high rate of errors; and (2) The data-entry of paper returns is cumbersome and time-consuming. Additionally, the processes – printing, enveloping, mailing, registering, cashiering – make a manual system very slow, costly, resource intensive, inaccurate and thus very inefficient. The significant challenges of the manual system has resulted in the introduction or planned introduction of e-filing and e payment systems in many countries.

2.1.4 Definition of E-Filing and E-payments

E-filing

For the purposes of this paper we will define e-filing as the transmission of tax information directly to the tax administration using the internet. Electronic filing options include (1) online, self-prepared return, using a personal computer and tax preparation software, or (2) online submission of returns using a tax professional's computer and tax preparation software. Electronic filing may take place at the taxpayer's home, a volunteer site, the library, a financial institution, malls and stores, or a tax professional's place of business.

E-payment

This paper defines e-payment as the transfer of money from a person's bank account to the tax administration's bank account using the internet. E-payments can be made online, at any time (during and after banking hours), and from any place.

Generally, under an e-filing and e-payment system returns are filed and payments are made via the internet and the tax administration sends an electronic confirmation acknowledging receipt of the return and/or payment. In the case of e-payments, the taxpayers also receive a debit confirmation from their financial institution.

2.1.5 ICT use for Tax administration in Tanzania

Historically, the use of ICT in Tanzania can be traced back to 1965 when the first computer (an ICT 1500) was installed at the Ministry of Finance. During that period installation was totally dependent on foreign experts. In some cases these experts were not adequately qualified, and applications tended not to be accurately documented and ran only when foreign experts were around. As a result in 1974 the government banned importation of computers and their accessories into Tanzania (Mgaya 1994). However, the ban covered a period of one decade and was lifted in 1984 (Hare 2007).

According to him, ICT provides alternative formats to hardcopy printouts of information which implies easy, faster, and cheaper information storage. Hill (1999:81) argues that, ICT expands the extent to which one can communicate information in terms of the frequency, amount of information to be communicated and distance over which communication occurs.

Furthermore, different literatures points out ICT use to be extremely beneficial; Mugisha, (2001) attests that, the use of ICT enhances timely access to accurate and relevant. What these scholars are trying to emphasize is that; the spread of ICT use in various sectors brings new opportunities for economic growth and development. New organization design, new markets, new products and improved services are been created which brings with them new sources of revenue.

Tanzania Revenue Authority was not left out in a rush toward ICT use; as pointed out earlier, it created a Directorate of Information and Communication Technology (ICTD) which has the responsibility of embracing ICT usage in all tax operations. Currently, the revenue departments are supported by ICT systems with the most central being the Integrated Tax Administration System (ITAX), Taxpayer Identification System (TIN), Computerized Motor Vehicle Registration System (CMVRS), Customs Administration System (ASYCUDA++) and Computerized Drivers' License System (CDLS). Other support systems for the TRA departments are Integrated Financial Management System (EPICOR), Integrated Payroll, Human Resources System (PEODESY), TRA Messaging System (e- Mail) and other legacy applications (TRA 2010e).

In line with Bird & Zloty findings, application of Information and Communication Technology has affected both the design and administration of tax system in Tanzania. There are no more rooms full of clerks posting entries by hand in large ledger books as it used to be; instead there is a widespread use of computers to administer tax.

Tanzania Revenue Authority have advanced to an extent of using electronic payments like TISS and EFT, electronic filling of return, as well as portals and websites. To facilitate connectivity to regional and district offices TRA has some of its networks provided by mobile phone companies. These are not only cheaper than the land based telephone systems, but also convenient as they only require transmitters and booster stations (Bird & Zloty 2008)

By virtue of using ICT, TRA recorded remarkable achievements. For example; itax contributed to improved taxation by speeding up administrative processes, timely monitoring of taxpayers and their penalties and its interests, and increase of revenue and income. In 1996, TRA used to collect US$ 25 million per month but the collection rose to US$300 million per month in 2007. Itax also enhanced efficiency, data security and even transparency of processes, release of staff from unproductive work, and possibility of electronic transfer and exchange of data with government and nongovernmental institutions (e-government). Through itax, there is a promotion of equity, communication with taxpayers, preventive impact on corruption and bribery, and impediment on tax avoidance and tax evasion. So, itax contributes to fair, effective and efficient taxation and increase on revenue, as well as supporting TRA's vision of becoming a modern tax administration (Shekidele 2007).

2.1.6 Large taxpayer office function

Most countries organize large taxpayer office to administer their direct or indirect tax. This trend began at the 1950 and when several OECD countries introduced special tax audit operation however ,this experiance passed through most counries it is become a large taxpayer for example on the studies 2014 in sub shara African countries all revenue bodies execpt Rowanda have set up a LTO to admininster the tax payer of small number of large enterpries and individuals in some countries that contribute 60_70% of tax revenue.

LTO are self- contained tax administration office under the authority of revenue action as a single window clearance point for all matters relating to central excise, income tax, corporate tax , value added tax and service tax where as in the case of ERCA plan report 2007 -2014 large taxpayers is organize for small group whose their threashold is high,by giving efficient service for collecting of direct and indirect tax. In the most pracitce show that such units will be equipped with modern facilties and trained manpower to assist the taxpayers in all matters relating to direct and indirect tax duty payments filing be made electronically.

2.1.7 Taxpayer Compliance

Large tax payer for purposes of electronic filling the IRS (Internal Revenues Service of USA) define a large taxpayer as a business or an entity with asset of $10 million or more or a parternership with more than 100 partner within to organize the eletronic submission of its own return.

From the above defntion we can undestand that where in the case of intergration efficiency help reduce taxpayers compliance cost and eliminate duplication and decrease tax administration costs.where as effectiveness for a better taxpayer services more effective collection enforcement , more effective use of information technology and more effective audit programs.

2.1.8 Large taxpayer organizational structure

The essential question emerges whether the revenue goal is to be realized in conformation with the original intentions of the policy design or whether the issue of will designed tax structure with all purpose, scope and objective of tax policy based on their contrbution tax revenue segmentionis designed because tax administration by itself is not homogenious .Whereas the organiztional structure can be compared to the skeleton of a body frame work upon which every part is built to promote efficient and cohesive operations .However there are a veriety of approaches to a tax administration can take to organize its resources to achieve its core purpose.(as raivle admiolah2010) basically there are three forms of OS commonly used by tax administration and they are based on type of tax ,functions and type of taxpayer most administrations follow one or some combination of these three models.

In respect to desining an effective orginazational structure that contingency theory suggests that there is no universally best organizational structure but that is the best for a given organization will depend on

contingenet factors in the environment in which it operates structure must be tallered to the culture of the society and must take in to account the economic social, cultural, political geographic and demographic state of the country in case of large tax payer.

2.1.9 Large tax payer common characters

Large tax payer(LTO) is a self containal tax administration offices acting as a single window clearance point of for all direct and indirect taxes. As international experiance show as that:-

A) Control over large percentage of the tax receipts

The largest share of revenue comes from a relatively small number of tax payers who not only pay their own taxes but also pay other tax payers'taxes through withholding systems.

Monitering of a limited number of tax payers by using an equally limited amount of human and other resources can allow for a greater control.

1. Large tax payers are different from other and should be treated differently

    1. They operate in the area of foreign trade and are branches of forign enterprises or have branches abroad.

    2. Their business operations are complex and they have a high transaction volume.

    3. They with hold taxes from other tax payers

    4. They use forms of avoidance that are difficult to detect such as transfer pricing.

    5. They employ and maintain heigh skill staff.

    6. Operational adjustments are easier to make for a few tax payers especially where there is a shortage of resources and trained staff.

2. Collection Improvement

Introduction of large tax payer monitering system can improve filling of returns and collection in the short medium terms.It can lead to a changes in tax behavior interms of being more compliance.

On the other hand a basic study of survey research of sub sahara africa countries show as about large tax payers office (internatinal tax dialogue2010) from the revenue bodies perspective major tax

compliance ranks for revenue bodies,many of these large tax payers present major tax compliance risks due to various factors concluding (sigenificent offshore activities(2)policies and stratagies to minmize tax liabilites (3)large portion of tax assessment result from audit activitey of large tax payers and growing |significant differences between financial accounting profits computed for tax payers. Use of professinal /dedicated tax advise many large business and high income individuals retain profficinal advisors to handle their tax planning and compliance affairs while others maintain their own in house tax organiztion base the survey result the study observe that consistent with internatinal practice,a common feature in the survied countries is the establisment of a dedicated (field delivery) unit to administer the tax affairs of the largetaxpayers ,appropriate taxpayers to the LTO which typically organized on functinal basis.

2.1.10. Tax revenue relation to GDP

(IMF study 2014) say that tax revenue in sub-saharan African countries performance varies. In the 46 sub-saharan african countres the share of tax revenue in GDP was on average 15.7 percent in 2014 .In these countries in 2014 it is only 3 countries between 20 and 30 percent, in 8 countries between 10 and 20 percent , the rest is below 10 ,however, Ethiopia is in the range of between 10 and 20 percent.

2.2 Empirical Literature

2.2.1 Modernization of Taxation

Total government revenue including grants was birr 137.1 billion in 2012/13. This is 16 percent higher than the GTP target set for the fiscal year, and 18.9 percent and 60 percent higher compared to the total government revenue of 2011/12 and 2010/11, respectively. In 2012/13, tax revenue accounted for 78 percent of the total government revenue. In 2010/11 and 2011/12, tax revenue accounted for about 69 percent and 70 percent respectively. This implies that the government is increasingly relying on the more reliable sources of revenue (tax revenue) to finance its expenditure needs.

A) Domestic Revenue

Tax revenue and non-tax revenue are the major sources of domestic revenue. In the long run, covering national development expenses by own resource has been the central objective of the government. Therefore, the Ethiopian government has continued to implement a number of policies and administrative measures to increase its domestic resource mobilization. As a result, domestic revenue has been increasing continuously over the past several years. Domestic revenues amounted to 127.4 billion birr in 2012/13. This far exceeds the domestic revenue recorded in 2011/12 by about 20 percent, while it is higher by 79.5 percent compared to the performance in 2010/11. The share of domestic revenue in total revenue was 81 percent in 2010/11, 89 percent in 2011/12 and 90.7 percent in 2012/13. The implication is that resource mobilization from domestic sources has been increasing and that the government is increasingly relying on domestic sources of revenue to finance its expenditures.

B) Tax Revenue

The Ethiopian tax reform has introduced successful tax collection and administration systems. During the past three years, on average birr 83.9 billion was collected from taxation every year. In 2012/13 a total of birr 107 billion was collected in tax revenues. This was 32 percent higher compared to its target. Compared to the tax receipts in 2011/12, it has increased by 24.8 percent. The primary factors for the improvement in tax revenue were the deepening of effective tax administration system, expansion of public education on taxation and strengthening of enforcement of the tax laws. Tax revenue as a percentage of GDP was 11.7 percent in 2010/11and 11.6 percent in 2011/12. The tax to GDP ratio has further increased to 12.5 percent in 2012/13.

Even though, nominal tax revenue has been increasing rapidly, the growth rate was not 10 proportionate to the rapid expansion of the size of the economy. In order to attain the GTP target of 15-17 percent of tax to GDP ratio by 2014/15, it is required to strengthen the tax collection and administration systems, expand public education and participation, strengthen enforcement and build the capacity of the taxation institutions. Federal and Regional disaggregated data of tax collection indicates that during the past three GTP periods the federal government has on average collected birr 67.3 billion per year. The collection accounts for 80 percent of the general government tax income. During the same period, total tax collections by regional states averaged birr

17 billion birr per annum, accounting for about 20 percent of the general government tax collection. In 2012/13, the federal government has collected birr 83 billion from taxation, which accounts for 78 percent of the total tax collection during the year. During the same year, regional states collected birr 24 billion from tax, accounting for about 22 percent of the total general tax collection.

In general, income from taxation has been improving over time, which clearly indicates that the tax reform measures have remained reasonably efficient in augmenting tax revenue and setting strong tax collection system. The reform comprises of four major strategies: strengthening modern tax information system, enhancing tax payers‟ awareness, strengthening enforcement of law and capacity development of the tax collection authorities. Some of the measures taken to implement these strategies over the past years are briefly highlighted below.

1) Strengthening Institutional Capacity

During the fiscal year under review, the revenue authority gave due attention for human resource planning and development. As a result, the authority has recruited 1,834 new and experienced employees from universities and the market.

In an endeavor to build the capacity of its employees and increase their efficiency, the authority has identified training needs and has conducted short and long term trainings for 2,696 staffs and mangers with the help of experienced training institution. It is expected that these training and education will strengthen the implementation and execution capacity of the authority. In addition, in collaboration with the federal Ethics and Anti-Corruption Commission the authority has provided short term ethics training to its performers to enhance their attitudinal capabilities.

2) Strengthening Modern Tax Information System

This has the objective of establishing improved efficiency, supply and usage of tax administration information system by using computerized database. The system provides reliable and fast flow of information within and outside the authority, fast service delivery, controls tax evasion, create a dependable database, and help for effective tax collection. A number of activities were implemented in this regard as described below.

Improving tax information administration

Strengthening Taxpayer Identification Number with biometric (Biometric TIN): Under the current taxpayers registration system, all taxpayers are expected to have TIN. An automated TIN system has been developed, deployed and supported by biometric finger print system at a national level. In 2012/13, a total of 249,839 finger prints information were collected. From the commencement of the project in 2008/09 till 2012/13 fiscal year, a total of 2,264,750 finger prints were collected which is 141.3 percent of the plan of 1.6 million finger prints information. With regard to distribution of biometric ID card, a total of 1.5 million (68.2 percent) finger print identification card have been printed and distributed.

Expanding sales register machine delivery and usage: In 2012/13 fiscal year, 14 sales register machine and 7 fiscal printer software suppliers have been supervised. During the fiscal year, a total of 20,883 taxpayers purchased and used 22,362 sales register machines. Since the beginning of the project in 2007/08 to 2012/13, at national level 66,250 taxpayers have been using 72,969 sales register machines.

Increasing delivery of information through technology - *SIGTAS E-Filing Deployment*:.

The objective is to introduce a system which helps taxpayers to declare their tax from their work place and without coming to tax centers. In this regard, in 2012/13, training was given to 816 taxpayers" and among these 634 taxpayers have fulfilled the requirements and have started to declare with e-filling system.

Customers Call Center Service: Customers call center service has been established in a tax and customs national Call Centre to provide transparent and consistent information on tax and customs laws and other information to the public. During the fiscal year under review, the center has started giving information to its customers through telephone.

Interfacing With Third Parties For Data Exchange: with the aim of establishing collaboration with third parties to exchange data among government institution, a network communication was established and data exchange has been started with Ministry of Finance and Economic Development, Road Transport Authority, Ethio- telecom, National Bank of Ethiopia, Ethiopian Airlines and Customs of Djibouti.

The Ethiopian Horticulture Agency is also interfaced with Automated System for Customs Data (ASYCUDA++) in order to get customs data.

3) Enhance taxpayers' education and communication

To improve taxpayer's voluntary compliance, the authority has worked on public education and communication with different customers and partners in the fiscal year 2012/13. In this regard, intensive taxpayers" education has been undertaken using electronic media and taxpayer face-to-face consultation forum. As a result of the above measures taxpayers' registration has increased. In 2012/13 alone, 29,743 (of which 2,510 are federal and 27,233 are Regions & city administrations) VAT registrants were registered. Since its introduction, the total number of VAT registrants throughout the country was 116,698 by 2012/13. On the other hand, during the fiscal year under review, about 3,107 (of which 289 are federal and 2,818 are Regions & city administrations) VAT registrants were deregistered. With regard to profit tax payers" registration, 26,436 (of which 2,409 are federal and 24,027 are Regions & city administrations) tax payers were registered, while about 3,037 (of which 284 are federal and 2,753 are Regions & city administrations) were deregistered. At the end of this fiscal year, 123,226 (of which 21,985 are federal and 101,241 are Regions & city administrations) taxpayers were registered as profit tax payers.

2.2.2 Management of large tax payer

2.2.2.1 Registeration

According proclamation 286/2002 article 43 and 45 every person having a tax obligation is required to obtain a tax payer identifiation number (tin) but in no case may a person more than one TIN. The taxpayer is to be charged a fee for according to the time table to be presecribed by diretives to be issued by tax authority if a person subject to tax withholding is reguired to supply the tin to the withholding agent. When paying over the withholding tax the withholding agent with amount of the withhold will respect person to carry on a business occupation is required to supply the TIN to licencing authority.All public bodies and institution issuing a business or occupational license shall not issue or renew such licence unless the taxpayer has supplied the Tin.

2.2.2.2 Issuance of clerance certeficate

Clerance is given when this requerment are full fill:

1. If the tax payer pay his tax due or if he has no arrears
2. If th tax payer pay all the tax or agree to pay
3. If the tax payer on due to pay, however he is commited to pay or he is appel to committe or to the court.
4. If the taxpayer have no any arrears on the payment year
5. If the taxpayer is on the national problem happend or his problem is understood by the branch office
6. If the tax problem admited by the branch administration office

2.2.3 Functions of Tax automation

Information generated from ICT systems is a vital resource, as it enables revenue administrations to meet both internal and external demands. In fact the literature indicates that significant efforts in the area of modernization of work tools and processes hinge on adopting technology to enhance the way in which information is handled so as to support operations and enhance service delivery both efficiently and effectively..

Specially tailored web-enabled Integrated Tax Management Systems are also a common feature in the area of domestic tax. For example, Rwanda, Mali, and Senegal operate the SITGAS. SITGAS runs a range of functions including: taxpayer registration; account management; electronic filing (E-filing); electronic payments and refunds; case tracking for audit purposes; reporting and so forth.

`Kenya Revenue Authority (KRA) no longer manually generates Taxpayer Identification Number (TIN) certificates. Rather through its itax system, electronic registration (e-Registration) module, taxpayers are able register to obtain tins online. KRA recently announced that it would further enhance itax to enable the electronic collection of taxes. In this regard, KRA has partnered with a financial service provider UBA Kenya Bank to pilot the enhanced features for the year ended 30th June 2013. As part of an effort to enhance domestic revenue(Automation in tax Administration, Elizabeth Kariuki, September 2013).

Chapter 3
Research Design and Methodology

The study adapted mixed research design in order to achieve the stated research objective and to answer research question, specifically, the study used quantitative survey and qualitative in depth interview and documentary analysis. The survey was conducted with the tax staff of tax assessment and collection, customer service, tax law enforcement and audit processes which is in depth interview on basis of focus group discussion. Besides this the interview were conducted with tax officials in large tax payer office .In addition to this documentary analysis was made using annual reports of LTO and ERCA from 2010-2014, tax collection policies and other documents that were relevant for the conduct of the study.

Research Methodology is one of the fundamental means to deal with the research problems properly. Survey is one among the three techniques of descriptive research method that focuses on the fact finding study with `adequate and accurate interpretation.

3.1 Research approaches

There are three alternative strategies of enquiry-qualitative, quantitative and mixed approaches. These approaches are different in terms of their philosophical assumption as well as techniques use in data collection, analysis and interpretation.

Qualitative research approach explores attitude, behaviors and experiences through methods such as in depth interview and/or focus group discussions (Dawson 2002).

It uses narrative, phenomenological, ethnographies, grounded theory and case studies. 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 are not studied in the past properly (Creswell 2007). However, this approach has been given less than a fair of appreciation.

The second approach, quantitative research generates statistical data through the use of large scale survey research, using methods such as close-end equation arise and/or structured interviews (Dawson 2002) Creswell (2009) noted that quantities approach employs strategies of inquiry such as experiments and surveys. And collect data on predetermined instruments that yield numeric can be analyzed statistical procedures. It is a means for testing objective theories through examining the relationship among variables.

Finally, mixed methods approach is the blend of both qualitative and quantitative approach. 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). Therefore, the combination provides an expanded understanding of the research problems. It utilizes the strengths and overcomes the weakness of the two continuum approach. However, incorporating both designs' requires a great level of efforts from the researcher such as need for extension 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, the researcher uses both qualitative and quantitative approach (mixed approach) in collecting data.

3.2 Research methods used

Research methods are the techniques used to collect data. In this study, the researcher adopted mixed method approach, as discussed in 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, observations, interviews, and documents analysis. For this study quantitative (survey) and qualitative (in-depth interview and document analysis).

3.3 Quantitative aspect (survey)

Survey research has its own strengths and weaknesses. The strengths of survey research include highly flexible, possibly cover a write range of research questions, describe an existing situation, easy to guarantee

respondents anonymity for instance, questionnaires may , easier to generalize tending and effective 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 process.

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 coben et al 2000) the attention should be paid to rigorous sampling; the basis of the survey's applicability to wider contexts is seriously underlined. The survey method of quantitative approach is appropriate and employed for this study.

3.4 Sample design

A sample design is a plan for obtaining a sample frame. It refers to the technique or the procedure the researcher would adopt in selecting some sampling units from which inferences about population drawn. There is no a standard rule for the determinations of sample Size. Both large and small sample might become unfriendly and too small a sample might be no representative what matters in the determination of sample seize 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. (Coherent al. 2000). By convenience, most researchers take a percent of populations to determine their sample size. Therefore, the researcher also believed that taking focus group (officials of law enforcement, tax assessment & collection, customers' service and tax audit of LTO) of from the sample its representation.

There are two main types of sampling procedures probability sampling and purpose sampling choosing the type of sampling technique depends upon the area of research, research methodology, and preference of the researcher (Sow son 2002). Probability sampling involves selecting elements randomly in that the selection of any one element is independent of the selection of the other elements which purpose sampling is used to make description rather than generalization (Dawson 2002). In addition to this, the researcher believed that all units of the sample frame proceeded similar information for the study. Therefore probability sampling is employed.

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

3.5 Survey instruments

Survey instruments include self administered questionnaire, structured interview and structured observations (Creteil 2009). This study used questionnaire which is a widely used and useful instrument for collecting survey information. As which and me lean (1994) stated, questionnaire could provide structured information, being administer without the presence of the researcher and often comparatively straight forward to analyze.

3.6 Sample Design

The sample design is a fundamental part of data collection which helps the researcher to identify which sample to conduct, how to conduct, to collect primary data and the overall decision making. A well-developed sampling design plays a critical role in ensuring that data are sufficient to draw the conclusions needed. In this study the target population sampling frame, sampling unit, sampling techniques, sample size and sampling procedures were determined and presented below.

3.6.1 Target Population

The target population of the study address are ERCA's Large Taxpayers Branch office management members, tax administration staffs and taxpayers of the branch. Hence, the populations are forty five officials of management members,235 staff of branch and 1215 taxpayers of the branch office.

3.6.2 Sample Frame

In order to confirm generalization and validity of the study, taking sufficient sample size and utilizing sample technique were giving special concern. The sample frame is to be forty five officials of management members, 235 staffs of branch and 1215 taxpayers of the branch office.

Sampling frame is a complete list of the study population for this study .The sampling frame are include Staffs and officials of law enforcement, tax assessment & collection , customers service and tax audit of LTO in the Ethiopian Revenues and custom Authority and taxpayers of the branch office.

3.6.3 Sample Size3

The size of the sample is perhaps the most important parameter of the sample design, because it affects the precision, cost and duration of the survey more than any other factor. Sample size must be considered both in terms of the available budget for the survey and its precision. Of 280 population of staffs and officials of branch office 47 are sample size and of 1215 total population of taxpayers of branch 144 taxpayers are the sample size of the study.

3.7 Research Instrument

Research instrument refers to devises used to collect data such as questionnaires, structured interview schedules, checklists, etc. From this instance, the study uses for primary data collection, a structured questioner which contains both open ended and close ended to collect quantitative and qualitative data from the respondents. The questioners includes the information that open ended in a scene that the respondents are free to list existing factors and possible causes related to the topic and it is closed ended in a sense that they asked to express their level of agreement on the subject related to the topic and rank a predetermined list of possible factors.

3.8 Source of Data

To meet the study objective, the researcher uses both primary and secondary source of data.

3.8.1Primary Data

The researcher collects primary either through direct communication with respondents in one form or another, through personal interviews and questionnaires. In order to insure the quality of the study, two types of questionnaires developed and distributed. The questionnaires analyzed and make necessary corrections and standardized before they distributed. Questionnaires distributed and filled by management members of LTO and taxpayers of LTO.

3.8.2 Secondary Data

The information gathered from journals, articles, books, magazines, published and unpublished documents, proclamations, Regulations, Directives, and different periodical reports which prepared by ERCA ,MOFED and LTO are used.

3.9 Methods of Data Analysis and Presentation

After the completion of essential data collection, proper tools and techniques are used for classifications, and analysis of data. The major tools that apply for classification of data are tables, percentage and ratio analysis. The analysis of data carried out through the computation of statistics with the help of computer. The quantitative and statistical data were presented using tables and percentages and while written presentation or narrative description apply for qualitative data using word.

CHAPTER 4

Data Presentation, Discussion and Analysis

In this section of the study, the data collected from the tax authority, the branch office and the taxpayer are analyzed. The data obtained through questionnaires and focus group interviews are classified and tabulated based on their nature and characteristics.

The implementation of information systems in tax administration of the country encountered challenges, which can be observed in terms of the perspectives of the participants..

4.1 Background of the Respondents.

Description of the characteristics of the target population gives some basic information about the sample population involved in the study. From the data collected and tabulated, the following significant characteristics of respondents of Taxpayer and Tax staff have been obtained.

Table 1: Characteristics of the respondents of Taxpayers

Variables	Variables Categories	Frequency	Percentage %
Sex	Male	69	55.60
	Female	55	44.40
	Total	124	100.00
Age	Below 25	34	27.80
	Between 25- 35	68	54.50
	Above 35	22	17.70
	Total	124	100.00
Educational Background	Diploma	60	48.4
	First Degree	54	43.5
	Above First Degree	10	10.1
	Total	124	100.00

As displayed in table 1 above, 69(55.6 %) of the respondents were male, 64 (54.5 %) were between 25 and 35 years of age, and 60(48.40%) of them were having diploma.

Table 2: Characteristics of the respondents of Tax staffs

Variables	Variables Categories	Frequency	Percentage %
Sex	Male	16	48.50
	Female	17	51.50
	Total	33	100.00
Age	Below 25	20	60.60
	Between 25- 35	8	24.20
	Above 35	5	15.20
	Total	33	100.00
Educational Background	Diploma	2	6.10
	First Degree	28	84.80
	Above First Degree	3	9.1
	Total	33	100.00

Source : Survey Data

As displayed in table 2 above, 17(51.50 %) of the respondents were female, 20 (53.56%) were below 25 years of age, and 28(84.80%) of them were having first degree .

4.2 Response Rate

The respondents for the questionnaires were the taxpayers of the branch office and the staff of tax administrator .Accordingly, the below table indicates that the response rate obtained from the data collection operation, which comprise primary data items.

Table 3. Response Rate for primary data

Data source	Method of Data Collection	Sample Size	Response Obtained	Response Rate
Taxpayers	Questionnaires	144	124	86.11%
Staff of Branch office	Questionnaires	47	33	70.21%
IT Team of Branch office	Interview	1	1	100%

Source: survey data

Based on the above indicated table, the profile of the respondents shown below:

- The respondents from the sample of taxpayers consists 86.11%,
- The staff of the branch office who responds to the questionnaires consists of 70.11% of the sample size.

  From this, it can conclude that the primary data collected constitute more than the average of the sample size. This shows that the sample collected claimed to be representative of the population and approaching reliability.

4.3 Demographic Data

The population of the study constitutes 1215(one thousand two hundred fifty) taxpayers of the branch office,47(forty seven) staffs from branch office and 1(one) information technology team of the branch office. The respective sample size for each sets of respondents are one hundred twenty four of taxpayers, thirty three of staffs from branch office and one staff from IT team of branch office. With regard to the determination of the sample size, the formula is applied to the taxpayers and staffs are in that 95% confidence level and 5% margin of sampling error are utilized. The sample size of the information system is the team as whole.

4.3.1 Taxpayers of the branch office

The primary data collected from the taxpayers comprises of different business sectors that starts business in different periods. The profile of the respondents also presented in subsequent paragraphs as follows:

4.3.2. Composition of taxpayers

The taxpayers of the branch that provide their responses to the questionnaires constitutes representatives from four business sectors namely; manufacturing ,service giving, merchandizing construction and others. The below table indicates the data obtained in the sample.

Table 4 -Composition of taxpayers by business type

Type of Business	Number of Firms	Percent
Manufacturing	44	35.5
Service	40	32.3
Merchandizing	25	20.2
Construction	15	12.1
Total	124	100.0

Source: Survey data

From the table one can observe that representatives from the different business of the economy were included in the sample. Moreover, the business sectors, which are included in the sample, constitute representative from various sectors of the economic activities. This shows that good number of sample that is claimed to be representative of the population is included in the study.

4.3.3 Composition of tax administration staffs by work Process

The tax administration staff of the branch that provide their responses to the questionnaires constitutes representatives from four work process namely; Tax assessment and collection ,Customer service , Tax audit and Tax enforcement. The below table indicates the data obtained in the sample.

Table 5 -Composition of tax administration staffs by work process

Work process	Number of staffs	Percent
Tax assessment and collection	13	39.4
Customer service	9	27.3
Tax audit	5	15.2
Tax law and enforcement	6	18.2
Total	33	100.0

Source: Survey data

From the table one can observe that representatives from the different work process of the branch office were included in the sample. Moreover, the work processes, which are included in the sample, constitute representative from various work process of the branch office activities. This shows that good number of sample that is claimed to be representative of the population is included in the study.

4.3.4 Information technology team of branch office

This team is under the supervision of Management information system of Tax Authority of ERCA its function to provide technical support for the tax administration of branch office; the interview was conducted with the team members that disclosed the challenges faced by both taxpayers and tax administration with regard to implementing tax automation.

4.4 Data analysis from the side of Taxpayer and Tax office

4.4.1 Assessments' of Taxpayers in implementing Tax automation

From data collected through questionnaires and focus group interviews are presented below. The assessments of tax administration of large taxpayer branch office in implementing tax automation are identified and discussed in detail.

The taxpayers of branch office who are responds to wards the obligation to use tax information system without any limitation and use of information systems on the basis of the legal requirements of tax administration and its associated challenges discussed in the subsequent parts of this section.

4.4.1.1 Obligation for the use of tax information system

The implementation of these systems are an obligatory basis which the branch office enforces the taxpayers to use without any limitation and install it up on the request of tax authority. With this respect, the taxpayers were not ready to purchase some equipment like sales register machines, computers, printers and related accessories because they do not plan to use it. This is to mean that, the taxpayer obliged by law but were not willing to implementing the system. The table below shows this fact.

Table 6- Obligation to use tax information system

Attributes	Number of Respondents	Weight	Total Weight
Strongly disagree	5	1	5
Disagree	10	2	20
Neutral	15	3	45
Agree	40	4	160
Strongly Agree	54	5	270
Total	124		500
Average Weight		4.03	

Source: Survey data.

Before I go to interpret the result of the above table it is important to set a standard in order to consistently interpreting the analyzed data so that if the average weight is greater than to 2.5 it means positive to the response whereas if the average weight is less than to 2.5 it means negative to the response and if the average weight is equal to 2.5 it means neutral to the response.

Thus, as indicated in the above table on average weight 4.03 of the taxpayers respond as agreed that the information systems used by obligation of law This result shows that the need of well organized awareness creation from the side of tax authority in general as well as the branch office in particular.

4.4.1.2 Challenges of service delivery by use of Tax information systems

The taxpayers of the branch receive different services from the branch office up on their demand. These services include: timely response to the maintenance of sales register machine, single window issuance of tax clearance certificate, support of e-taxing service and comfortable user of the information systems. This implies that when the taxpayer collects tax clearance certificate at the time of request and receives maintenance of cash register machine on timely basis would result in efficiency and effectiveness on its business activity as well as it increases tax compliance of the taxpayer. This means that, there are inefficiencies on service delivery of maintenance for sales register machine and issuing tax clearance certificate as a single window by use of tax information systems. The below table shows these facts.

Table-7- LTO issuing tax clearance certificate on reasonable time with a single window for all taxes

Attributes	Number of Respondents	Weight	Total Weight
Strongly disagree	38	1	38
Disagree	34	2	68
Neutral	17	3	51
Agree	25	4	100
Strongly Agree	10	5	50
Total	124		307
Average weight		2.47	

Based on the survey data depicted on the above table -7-, the average weight which is 2.47 of taxpayers respond as disagree about the branch office were not issuing tax clearance certificate on reasonable time as a single window for all taxes. This result shows that the conflict between the taxpayer and the branch office will arise due to delay of services from the side of tax office.

Table-8- Timely maintenance and service of sales register machines

Attributes	Number of Respondents	Weight	Total Weight
Strongly disagree	27	1	27
Disagree	45	2	90
Neutral	34	3	102
Agree	13	4	52
Strongly Agree	5	5	25
Total	124		296
Average weight		2.39	

Source: Survey data

Based on the survey data depicted on the above table -8-, the taxpayers respond as which is close to disagree about the supplier and the branch office were not deliver their service request of timely maintenance and service of sales register machines, which has an average weight of 2.39. This result shows that the conflict between the taxpayer and the branch office will arise due to delay of services from the side of tax office.

4.4.1.3 Challenges faced by both tax staffs and taxpayers by implementing information systems

The implementation of tax automation has faced various challenges from the side of both taxpayer as well as tax administration because of lack of enough knowledge that results the gap between the tax staff and

taxpayer. With this respect, the branch can fill this gap by giving the training for both taxpayers and the staff in order to implement the information systems. The table below indicated as follows;

Table-9- Effective utilization of tax information systems

Attributes	Number of Respondents	Weight	Total Weight
Strongly disagree	56	1	56
Disagree	24	2	48
Neutral	9	3	27
Agree	20	4	80
Strongly Agree	15	5	75
Total	124		387
Average weight		2.31	

Source: Survey data

From the above table depicted that the taxpayer on the average weight of 2.31 responds that there were ineffective utilization of tax automation systems. This means that when we select to investigate the taxpayer files, not by the use of risk management rather they select it by some indicators of risk. On the other side , lack of knowledge in case of how to use the system in accordance with the tax laws. This result will have an impact on tax registration, tax assessment and collection, tax audit and risk management of taxpayers,

4.4.1.4 Information systems are basic mechanisms for maximizing tax revenues

A revenue administration will maximize its revenue potential by use of the effective and efficient tax collection through implementing the tax automation systems. With this respect, Lto as tax administration

collects a huge amount of tax which compared with the previous years but its performance less than the expected revenue potential to be collected from economy due to various factors. Even if there is an increase in tax collection, the table below shows that more efforts need to collect the revenue potential by implementing tax automation effectively.

Table-10- LTO Revenues of Collection (2010-2014)

Tax Type	Fiscal Year					Annual Average Revenue	Annual Average % Share
	2010	2011	2012	2013	2014		
Direct Tax	17720.03	19369.5	22231.3	28462.1	29442.3	117225	0.33
Indirect Tax	8984.43	9325.16	9821.24	10856.7	13618.7	52606.2	0.15
Excise Tax	488.08	1770.94	1821.57	1616.21	2185.59	7882.39	0.02
Vat on Goods	10946.08	11838.8	19211.4	22639	29401.7	94037	0.26
VAT on Service	14462.1	17957.5	18557.8	18418.5	18172.8	87568.6	0.24
Other	88.17	107.94	130.49	183.05	330.99	840.64	0.00
Total Tax Revenue	52688.89	60369.8	71773.7	82175.5	93152.1	360160	1.00
Annual Growth rate		14.58	18.89	14.49	13.41		

Source: survey data

The above table indicated that the revenue performance for the last five years on the basis of different type of revenues. When we see the table below shows that there is a gap between the result of survey data and the above table.

Table- 11- Information systems are basic mechanisms for maximizing tax revenues of Lto

Attributes	Number of Respondents	Weight	Total Weight
Strongly Disagree	12	1	12
Disagree	11	2	22
Neutral	17	3	51
Agree	50	4	200
Strongly Agree	34	5	170
Total	124		455
Average Weight		3.67	

Source: survey data

From the above table depicted that the average weight of the taxpayer respond (3.67) to agree with a positive impact of information system on collection of tax by maximizing its revenues whereas the rest of the respondents were against the majority respond by responding different views because they have their own reasons . That means to increase revenue of tax, the automation system has a vital role but not by it rather there are other several factors exists.

4.4.2 Assessments' of Tax office in implementing Tax automation

The tax administration of the branch office requires qualified and employees so as to implement the tax automation as per the standard of the systems. In implementing the information system of tax there are many challenges that need to solve the problem. In order to assesses the challenges faced by employee of the tax administrator and its associated problems discussed in the subsequent parts of this section.

4.4.2.1 Obligation for the use of tax information system

The implementation of these systems are an obligatory basis which the branch office enforces the taxpayers to use without any limitation and install it up on the request of tax authority. With this respect, the taxpayers were not ready to purchase some equipment like sales register machines, computers, printers and its related accessories because they do not plan to use it. This is to mean that, the taxpayer obliged by law but were not willing to implementing the system. The table below shows this fact.

Table -12- obligation to use tax information system by law but not will

Attributes	Number of Respondents	Weight	Total Weight
Strongly Disagree	1	1	1
Disagree	7	2	14
Neutral	2	3	6
Agree	21	4	88
Strongly Agree	2	5	10
Total	33		119
Average weight		3.6	

Source: Survey data

As indicated in the above table the staffs respond on average weight of 3.6 those of agree that the users of information system by obligation of law not by will of them whereas 8(24.20%) of the staffs they respond as disagree because some taxpayers accept the modernization of tax information system by will of them because they believe that the modernization of tax administration will support their tax compliance. This result shows that the need of well organized awareness creation from side of the tax authority in general as well as the branch office in particular.

4.4.2.2 Challenges of service delivery by use of Tax information systems

The taxpayers of the branch receive different services from the branch office up on their demand. These services are namely: timely respond on the maintenance of sales register machine, single window issuance of tax clearance certificate, support of e-taxing service and creating awareness through education and training for user of the information systems. This implies that when the taxpayer collects tax clearance certificate at the time of request and receives maintenance of cash register machine on timely basis would result in efficiency and effectiveness on its business activity as well as it increases tax compliance of the taxpayer. This means that, there are inefficiencies on service delivery of maintenance for sales register machine and issuing tax clearance certificate as a single window by use of tax information systems. The below table shows these facts.

Table-13-LTO delivers services by its IS (E-taxing, SIGTAS, Sales register machines) effectively

Attributes	Number of Respondents	Weight	Total Weight
Strongly disagree	5	1	2
Disagree	19	2	38
Neutral	4	3	12
Agree	3	4	12
Strongly Agree	2	5	10
Total	33		74
Average Weight		2.24	

Source: Survey data

Based on the survey data depicted on the above tables, on average of 2.24 staffs respond as disagreed for the branch office was not use effectively the information systems of the branch office. This result shows that the conflict will arise between the taxpayer and the staffs of branch office due to delay of services from the side of tax office.

Table-14- Timely maintenance and service of sales register machines are delivered by supplier and staffs of Tax administrator

Attributes	Number of Respondents	Weight	Total Weight
Strongly disagree	16	1	1
Disagree	7	2	14
Neutral	3	3	9
Agree	3	4	12
Strongly Agree	4	5	20
Total	33		56
Average Weight		1.7	

Source: Survey data

Based on the survey data depicted on the above tables, on average of 1.7 staffs respond as disagreed for the about the supplier and the branch office were not deliver the service request of taxpayer on basis of timely maintenance and service of sales register machines. This result shows that the conflict will arise between the taxpayer and the staffs of branch office due to delay of services from the side of tax office.

4.4.2.3 Challenges faced by both tax staffs and taxpayers in implementing IS

Implementation of tax automation is faced various challenges from the side of both taxpayer as well as tax administration because of lack of enough knowledge that results the gap between the tax staff and taxpayer. With this respect, the branch can fill this gap by giving the training for both taxpayers and the staff in order to implement the information systems. The table below indicated as follows;

Table-15- Ineffective utilization of tax information systems faced by tax administrator

Attributes	Number of Respondents	Weight	Total Weight
Strongly disagree	3	1	3
Disagree	2	2	4
Neutral	1	3	3
Agree	12	4	48
Strongly Agree	15	5	75
Total	33		133
Average Weight		4.03	

Source: Survey data

From the above table depicted that on average of tax administrators respond as agreed about there were ineffective utilization of tax automation systems by them. This means that when we select to investigate the taxpayer files, not by use of risk management rather they select it by some indicators of risk. On the other side , lack of knowledge in case of how to use the system in accordance with the tax laws. This result will have an impact on tax registration, tax assessment and collection, tax audit and risk management of taxpayers,

4.4.2.4 Information systems are basic mechanisms for maximizing tax revenues

A revenue administration will maximize its revenue potential by use of the effective and efficient tax collection through implementing the tax automation systems. With this respect, Lto as tax administration collects a huge amount of tax which compared with the previous years but its performance less than the expected revenue potential to be collected from economy due to various factors. Even if there is an increase in tax collection, the table below shows that more efforts need to collect the revenue potential by implementing tax automation effectively.

Table-16- LTO Collection of Revenues (2010-2014)

Tax Type	Fiscal Year					Annual Average Revenue	Annual Average % Share
	2010	2011	2012	2013	2014		
Direct Tax	17720.03	19369.5	22231.3	28462.1	29442.3	117225	0.33
Indirect Tax	8984.43	9325.16	9821.24	10856.70	13618.70	52606.2	0.15
Vat on Goods	10946.08	11838.8	19211.4	22639	29401.7	94037	0.26
Excise Tax	488.08	1770.94	1821.57	1616.21	2185.59	7882.39	0.032
VAT on Service	14462.1	17957.5	18557.8	18418.5	18172.8	87568.6	0.24
Other	88.17	107.94	130.49	183.05	330.99	840.64	
Total Tax Revenue	52688.89	60369.8	71773.7	82175.5	93152.1	360160	1.00
Annual Growth rate		14.58	18.89	14.49	13.41		

Source: survey data

The above table indicated that the revenue performance for the last five years on the basis of different type of revenues. When we see the table below shows that there is a gap between the result of survey data and the above table.Table- 16- Information systems are basic mechanisms for maximizing tax revenues of Lto

Attributes	Number of Respondents	Weight	Total Weight
Strongly Disagree	4	1	4
Disagree	5	2	10
Neutral	10	3	30
Agree	11	4	44
Strongly Agree	3	5	15
Total	33		103
Average Weight		3.12	

From the above table depicted that an average of the tax administrators respond neutral to positive impact of information system on collection of tax by maximizing its revenues because they lacks enough information with this respect to give their own reasons . That means to increase revenue of tax, the automation system has a vital role but not by it rather there are other several factors exists.

4.4.2.5 Challenges of infrastructure of information systems

In order to implement the information system of tax administration the infrastructures has a pivotal role to have a positive impact on revenue collection. The infrastructures namely: network provider of Ethio-telcom , compatible versions of computers with its accessories , UPS, Backup storage equipments, and servers with high storage capacity of memories .With this respect, majority of infrastructures were available from Head office of ERCA but sometimes the challenge have occurred through the branch by itself. The result of survey data shows this fact as table below indicated:

Table- 17- Information systems are faced a problem by lack of infrastructure

Attributes	Number of Respondents	Weight	Total Weight
Strongly disagree	4	1	4
Disagree	5	2	10
Neutral	3	3	9
Agree	16	4	64
Strongly Agree	7	5	35
Total	33		122
Average Weight		3.70	

Source: survey data

From the table indicated above, the average weight of tax administrators respond which is close to agreed (3.7) that there is no adequate infrastructure for tax information systems whereas the rest respond various views which shows some gap exists on the service delivery by implementing automation due to inadequate infrastructure of the information systems.

4.5 Results and findings from the side of Taxpayers

The findings obtained from the responses provided by the taxpayers are discussed in this section. The responses obtained from those taxpayers who respond for the questionnaire presented in tables shown in detailed manner. The respondents constitute 124(86.11%) of the selected sample for the study. The discussion pertaining to the findings of the study presented in the subsequent parts as follows:

4.5.1 Taxpayers attitudes on information systems

When the attitudes those taxpayers do have on the information system observed, we found two sets of attributes. The first attributes constitutes those taxpayers who are comfortable with the information system. In contrary, the second aspect involves those taxpayers who are not at ease. From their responses, one can understand that the degree of their responsiveness to the system. With this respect, the attitudes that taxpayers do have on comfortable by being the user of information system are shown in the table below:

Table- 18- Taxpayers attitudes on comfortable by being users of information system

Attributes	Number of Respondents	Weight	Total Weight
Strongly disagree	61	1	61
Disagree	31	2	64
Neutral	11	3	33
Agree	7	4	28
Strongly Agree	14	5	70
Total	124		256
Average Weight		2.06	

Source: survey data

As indicated from the table above the average respondents which is close to 2.06 are disagreeing on the issue that means they are not comfortable by being the user of information systems. This is result indicates the number of taxpayers who are not comfortable by being user of information system, the tax authority and the branch office required to dig the reasons for their dissatisfaction.

4.5.2 Obligatory uses of information systems

The tax office should demonstrate all information system by giving extensive education for both taxpayers and tax officers because when the tax office imposes all information systems to implement by way of legal force it is meaningless at the end of the day. So that the existence of by will of taxpayer to use the system more effective than use of obligatory mechanism. This means that the response obtained from the users of information system, their respond towards the obligatory users of information system of the tax office are shown in the table below: Table- 19- Taxpayers are obligatory users of information system

Attributes	Number of Respondents	Weight	Total Weight
Strongly disagree	15	1	15
Disagree	5	2	10
Neutral	11	3	33
Agree	27	4	108
Strongly Agree	66	5	330
Total	124		496
Average Weight		4.00	

Source: survey data

From the above table it shows that on average weight of 4.00, the respondents are agreed that there is an obligation to the users of information systems by the tax office because it is based on not their will. This can be taken as a signal for the tax authority and the branch office to investigate it the real cause of the case by observing law and other experience.

4.5.3 Taxpayers attitudes on service delivery by use of information systems

Unless sustainable service delivery provided by the tax office, the desired objectives of the systems will not meet. Since taxpayers are business oriented that measure their time in terms of monetary, delay in service delivery results loss to them. The tax office must make relentless effort towards the improvement of the service delivery. Quality of the service delivery provided by the tax office has a direct impact on the compliance of the taxpayers to the information systems. With this respect, the users of the systems disclosed their attitudes on the service delivery of the tax office in the table below:

Table -20- Taxpayers attitudes on service delivery by use of information systems

Attributes	Number of Respondents	Weight	Total Weight
Strongly disagree	66	1	61
Disagree	22	2	44
Neutral	7	3	21
Agree	14	4	56
Strongly Agree	15	5	75
Total	124		257
Average Weight		2.07	

Source: survey data

It is indicated that the average respondents of the taxpayers are not satisfied(disagree) with the service delivery of the branch office. Thus, the office required to examine its weakness on the service delivery.

4.5.4 Taxpayers have capacity to implement the information systems

The tax office must consider the capacity of taxpayer in the case of to fulfill the facilities of knowledgeable employees and information technologies equipments such as sales register machine, computers and broad band network access. In addition, the tax office makes training to the employee of taxpayer in order to implement the system. As per the survey study conducted, the taxpayers disclosed their level of satisfaction on this subject. The responses obtained from the users depicted in the below table:

Table -21- Taxpayers have capacity to implement the information systems

Attributes	Number of Respondents	Weight	Total Weight
Strongly disagree	30	1	30
Disagree	24	2	48
Neutral	35	3	105
Agree	30	4	120
Strongly Agree	5	5	25
Total	124		328
Average Weight		2.64	

Source: survey data

From the above table the average of the taxpayers respond (average weight of 2.64) in between that means neutral. This result shows that additional effort need by tax office to bring the capacity of taxpayer to implement the system.

4.5.5 Interruption of information system during operation

Once the tax office implement the information system, it requires follow-up and support from the side of tax office are mandatory because if the systems fails for various reasons unnecessary costs of tax compliance incurred .So that the tax office give do attention to smooth functions of the operation of the system. When the system interrupted due to network failure or and damage of apparatus of information technologies can create inconvenience for the taxpayer. As per the response obtained from the taxpayers result shows in the below table:

Table -22- Interruptions of the information systems during operation

Attributes	Number of Respondents	Weight	Total Weight
Strongly disagree	6	1	6
Disagree	7	2	14
Neutral	11	3	33
Agree	22	4	88
Strongly Agree	78	5	390
Total	124		531
Average Weight		4.28	

Source: survey data

The above table shows that the average respondents close to the weight of 4.28 those agreed that the existence of interruption of system for various reason among them the most dominant one is related with the network infrastructure of Ethio- telecom. With this regard, as per the survey study the tax office should exert its effort to avoid this serious problem with the collaboration of the stakeholders.

4.6 Results and Findings from the side of Tax staffs

The findings obtained from the responses provided by the tax staffs are discussed in this section. The responses obtained from those who respond for the questionnaire presented in tables shown in detailed manner. The respondents constitute 33(70.21%) of the selected sample for the study. The discussion pertaining to the findings of the study presented in the subsequent parts as follows:

4.6.1 Tax administrator staffs attitudes on information systems

When the attitudes those tax offices do have on the information system observed, we found two sets of attributes. The first attributes constitutes those tax officers who are comfortable with the information system.

In contrary, the second aspect involves those tax officers who are not at ease. From their responses, one can understand that the degree of their responsiveness to the system.

With this respect, the attitudes that tax officers do have on by being the user of information system are shown in the table below: Table- 23- Tax officer's attitudes by being users of information system

Attributes	Number of Respondents	Weight	Total Weight
Strongly disagree	7	1	7
Disagree	12	2	24
Neutral	9	3	27
Agree	2	4	8
Strongly Agree	3	5	15
Total	33		81
Average Weight		2.45	

Source: survey data

As indicated from the above table on average weight 2.45 of respondents are disagreed that they were not interested by being the user of information. As per the result, the tax authority and the branch office required to dig the reasons for their dissatisfaction.

4.6.2 Tax officer's attitudes on service delivery by use of information systems

Unless sustainable service delivery provided by the tax office, the desired objectives of the systems will not meet. Since taxpayers are business oriented that measure their time in terms of monetary, delay in service delivery results loss to them. The tax office must make relentless effort towards the improvement of the service delivery. Quality of the service delivery provided by the tax office has a direct impact on the compliance of the taxpayers to the information systems. With this respect, the users of the systems disclosed their attitudes on the service delivery of the tax office in the table below:

Table -24- Tax officers' attitudes on service delivery by use of information systems

Attributes	Number of Respondents	Weight	Total Weight
Strongly disagree	2	1	2
Disagree	22	2	36
Neutral	3	3	18
Agree	3	4	12
Strongly Agree	1	5	15
Total	33		78
Average Weight		2.18	

Source: survey data

It is indicated that on average weight of 2.18 of the tax officers are not satisfied (disagree) with the service delivery of the branch office. From the result we observe that the employee of tax administration accepts the existing problem of service delivery with regards to related with information systems. Thus, the office required to examine its weakness on the service delivery.

4.6.3Tax administration capacity to implement the information systems

The tax office must consider fulfilling the facilities of knowledgeable employees and information technologies equipments such as sales register machine, computers and broad band network access. In addition, the tax office makes training to the employee of taxpayer and the tax officer in order to implement the system. As per the survey study conducted, the taxpayers disclosed their level of satisfaction on this subject. The responses obtained from the users depicted in the below table:

Table -25 Tax administration capacity to implement the information systems

Attributes	Number of Respondents	Weight	Total Weight
Strongly disagree	2	1	2
Disagree	2	2	4
Neutral	7	3	21
Agree	10	4	40
Strongly Agree	12	5	60
Total	33		127
Average Weight		3.85	

Source: survey data

From the above table, we observe that the average respondents were agreed on the capacity of the taxpayers to implement the systems because it requires well trained employees for taxpayers and tax office as well. Even though the result is positive but some of the respondents express in favor of against the tax office incapacity to implement the systems. So that additional effort need by tax office to bring the capacity of tax officers by giving continues training how to implement the system.

4.6.4 Infrastructure problem

The Ethiopian Telecommunication Corporation supplies the SIM card utilized for the sales register machine in order to transfer sales data from the machines to the tax authority via wireless communication. However, due attention is not given by corporation. They consider it as ordinary cards. For this reason, the installation operation is adversely affected. This problem is prevalent to all the suppliers of the machines. Without the prompt supply of the required SIM card, the sales information cannot transfer from taxpayers to the tax office. Moreover, the suppliers of the sales register machines are not in a position to supplies the machines as per the

demand of the taxpayer as well as the tax office. Once the tax office implement the information system, it requires follow-up and support from the side of tax office are mandatory because if the systems fails for various reasons unnecessary costs of tax compliance incurred .So that the tax office give do attention to smooth functions of the operation of the system. When the system interrupted due to network failure or and damage of apparatus of information technologies can create inconvenience for the taxpayer.

4.6.5 **Operational problem**

The training provided by suppliers of sales register machine are not as per the required level in that the problem solving capacity of the operators of the machines do not enhance. This is because the training provided for two days and the necessary operational manuals not available to the operators. For this reason, some operators have no confidence to use the machines.

The other operational problem is the transfer of purchase data online via the tax authority web site which faces the connection problem by provider of network services and the capacity of the tax office to manage it.

Moreover, the office faces a challenge for the operation of E-Taxing during the taxpayer submitting its file through the internet, there is a frequent interruption of network. I f the failure of the connection exists, and then the taxpayer expected to file it on manual basis as usual before and incurs additional tax compliance costs.

4.6.6 **Challenges from others**

Under this section, the challenges facing the tax authority from those governmental bodies which are actual participants of the systems. They have influence on the smooth functioning of the systems. The body which has a significant role on the systems is the telecommunication organization. All systems cannot operate without sustainable telecommunication infrastructure .With this regard, the support made by the telecommunication organization is not as required level. To confirm this case with practical reality out of 84013 installed cash register machines in the county, the sales information of only 32913 machines transferred to the tax authority' server.(interview conducted with Information technology team of the branch office).We can see that there is wide gap between the two and the authority must do its effort to fill the gap.

The challenges facing the tax authority as well as the branch summarized as follows:

1. Lack of awareness about the implementation of tax automations tools,
2. Lack of sustainable telecommunication infrastructure,
3. Low attitudes of taxpayer to use the tax information system because they understand that its useful only for tax office,
4. Lack of awareness from staffs of tax authority,
5. Absence of clarity on the laws, regulation and directives against the implementation of information systems,
6. Lack of awareness from public as a whole about the importance of system like cash register machines by receiving the receipt from taxpayers,

4.7 Assessments of information systems towards tax administration

The implementation of tax automations have assessed from the utilization of information generated from the system towards improvement of the tax administration.

4.7.1 Transfer sales data to Tax office

The transfer of sales information from taxpayer of sales register machines to the tax authority is essential to minimizes the tax evasion. Until the end of the last budget year, out of 84,013 of the machines, the sales information of 32,913(40%) of sales register machines transferred to the server of the tax authority (ERCA Performance Report 2014). The low performance of transfer of sales data is associated with the capacity limit and availability of infrastructure of Ethio- Telecom. This result shows that more effort need to fill the gap from the side of tax authority and the stakeholders.

4.7.2 Transfer of Purchases data to tax office

This system also controlled and administered by Head office Directorate of Management information system and Directorate of Tax Information Administration. The output of the system useful for the tax assessments and investigation of taxpayers file in order to arrive at with trustful between the tax office and

the taxpayer. The users of the system are not all taxpayers of the country because there are the requirements of infrastructure from Ethio- Telecom and capacity from the side of tax office. From the last year 2014 report of ERCA, out of 1215 large taxpayers, 738(60.74%) of taxpayers have sent their purchase information through the web site of ERCA. This result shows that the branch office has to take steps the reason for law performance of the system.

4.7.3 Report submitting using E-Taxing

Since Nov/2013 the report of value added tax, Employment income tax and withholding tax have been submitted using E- taxing for taxpayers of branch office and the office was the first to implement the system. When we see the performance, out of 1215 taxpayer of the branch office, 857 (70.53%) of VAT report, 324(26.67%) of employment income tax report and 585(48.15%) of withholding report are filling using the system of E-Taxing.

From the implementation of this system the two bodies are benefited in terms of saving time and cost of tax to mange taxpayer file as a whole. Even though the system is newly introduced in the branch office, it faced some challenges which are similar with other information systems. To mentions some of them are frequently interruption of the system, lack of capacity to implement the system by taxpayer and not all tax configured with the system so that only three type of tax can be reported by the system.

CHAPTER 5

Summary, Conclusions and Recommendations

5.1 Summary

The administrations of tax automation is a complex, need a dynamic responsibility that now a days it is available to treat in a modern way revenue administration has, in the last two decades, become a focal area of fiscal reform in a number of sub-Saharan African (SSA) countries and values reforms are currently being undertaken to approve operational efficiency and modernize revenue administration.

The objective of this study, therefore to review and examine the assessment of efficient and effectiveness of tax collection, Audit and tax enforcement with regard to implementation of tax automation. In addition to this it has a better tax payer compliance in the case of large tax payer office of (ERCA), to reach a better research result study other country experience and use compare and contrast of the performance within the annual report and reference the some East Africa countries of (LTO).

Hence, so as to create efficiency and effectiveness in tax administration and to maximize the revenue collection it is vital to address the administration problem that affect it, however, this study is focused on LTO Effective tax administration of large tax payers by implementing automation tools such as sales register machines, Standard Integrated Government Tax Administration System (SIGTAS), purchase declaration of using online system , E-TAX(electronics filling tax report online) that contributes for revenue collection in resulting taxpayer compliance.

5.2 Conclusions

From the data collected through conducted questionnaires and analyzed using descriptive method, the implementation of tax automation a key factor for success of efficient tax collection of a country. Hence, the result of the study concluded that the following points:

1. When there is a strong and effective system of information technology it is the base for enhancement of the efficiency of the administration. To realize such situation mutual understanding and genuine information exchange is of paramount importance. The system supported the tax office in making sound and information based tax assessment, tax audit and risk analysis of taxpayers, which is free from subjective judgment. Since the system cannot operate efficiently without the active participants, the existence of mutual discussion forum on regular basis is essential.

2. One can understand that the operating environment for each participants differ due to the role they have in the system, Because of this, the participants are obliged to encounter to different types of problems and challenges. From this one conclude that the existence of cooperation and understanding among the participants is mandatory.

3. In the data analysis part of the study, the assessments of each participants of the systems presented in detail. From the data analysis and observations made, there is the attitudinal gap among the participants. This is so because, the participants are not in a position to understand each other and bind with their operating environment. The need of extensive awareness creation mechanism is essential to the base for the systems.

4. The objectives of these systems are to transfer sales and information from taxpayer to tax office. In addition to these it has an objective of creating credibility of information among the tax office and taxpayer. These enhance the tax administration in that tax assessments, audit and risk managements made based on reliable information at the disposal of the tax authority's database.

In contrary to this, the users of sales register machine are unwilling to purchase and install it. This gap of understanding between the two

parties is a result of a fearful awareness creation mechanism of the tax authority. This is to mean that the awareness mechanism of the tax authority is focused on the magnifying of punishment of laws.

5. Committing a mistake on the cash register machines, E-taxing, declaration of purchase online mechanism by the taxpayer wrongly understood by the concerned personnel of tax office in that the legal punishment would be resulted. Apart from this, the degree of awareness of tax authority's staff is not as per the required level. In that, lack of knowledge and commitment to deliver satisfactory service observed.

6. The implementation of information system is on obligatory basis in that taxpayers are required to purchase and install it. In this case, they may not be ready to purchase the sales register machines, computers and others related equipments. The suppliers of these items tempted to generate high profit from the sales of these items. This shows that the need of the tax authority to intervention to reconcile the interest of the suppliers and the users.

7. The systems cannot operate without the availability of telecommunication lines. With this regard, Telecommunication Company did not provide sustainable service delivery. Because of this the transfer of information sales, purchase and e-filling from the taxpayers to server of the tax authority is not as per the required level. There is a failure in data transfer mechanism of the telecommunication organization. In addition to this, the service delivery of the telecommunication organization is not dependable as far as input for the software system is concerned. With this regard, the need of government intervention is required to realize sustainable service delivery by the concerned Ethio-Telcom.

8. As per the reply obtained from the users, a number of problems are facing them in the course of their operations. Among the problems facing the users are delay in the response time from tax office, impractical situations of the systems for some business firms and delay in maintenance time. Some users

also disclosed the problem of interfacing existing systems with the sales register machine, e-taxing and purchase on line declaration.

9. The success of these systems are measured in terms of the degree of transfer of sale and purchase and report of tax using E-taxing from taxpayers to the server of tax authority. The sales and purchase information generated from the system are used as an input for tax assessment, audit and risk management of taxpayers' files. The systems are claimed to be successful only when the tax authority adequately utilizes the information. With this regard, the extent of data transfer is not reached full level. In that, the authority requires additional efforts towards the maximization of the data transfer rate.

10. The capacity limit of the users of information systems hampers the smooth functioning of the operation of the systems. Since all systems are new, there are a number knowledge gap by the suppliers of cash register machines, the users of the systems and the tax officers. This gap can be an indication to the tax office to work more on awareness creation by undertaking sustainable training and education to the taxpayers.

5.3 Recommendations

The implementations of tax automations have the objective to enhance the revenues of the tax administration. This realized the generation of sustainable information, which can be utilized as input for tax assessment. These systems enable the tax office to base its decision on reliable information. In addition to this, it minimizes the tax declaration cost and time saving in the case of the system of e-taxing because the taxpayer files its monthly report from business premises to tax office.

As stated in preceding chapter of the study, the systems tied with a number of challenges and problems during the assessments of the tax automation systems, which originated from the participants of the systems.

After analysis of the data comprises with studied procedures and requirements, Tax assessment and Administration as related to implementation of automation can be improved through the points here under are the recommendation of the study.

1. From the data analysis and observation, lack of competencies from the side of the tax authority in general and the tax office in particular observed. The office should intensively identify the reasons for such deficiency. Staff's commitment and initiative to solve problems have critical importance. It enhances the trust of the participants on the tax authority and the tax office. This required comprehensive and intensive effort towards awareness creation and attitudinal changes of the staff by the tax office. In line with, the tax authority and tax office must conduct self examination and fill their gap accordingly.

2. The users of the information systems are not voluntary to purchase and install the systems; this is the result of their pessimistic attitude towards the use of the systems. In order to deal with such problem, the tax authority and the tax office should change their approach of awareness creation mechanism. Due to the fearful means of awareness creation mechanism followed by the tax authority and the tax office, the users are unwilling to purchase and use the sales register machines and equipments for information systems. The authority should demonstrate the practical benefits derived from using the systems. Moreover, the tax office should set up incentive mechanisms to bring them in to the systems.

3. Ethio-Telcom infrastructure and service have vital importance for the sustainability of the system. The service demand by the participants of this system should not be considered as ordinary one. It has significant impact on the revenue generation of the country. The authority, in consultation with the concerned officials of Ethio-Telcom, is required to arrange a special place of service delivery to the participants of the systems.

4. The problem associated with power interruption seems to be insignificant. But, it has adverse consequences on the issuance of the cash receipt. This is to mean that when we use the system of sales register machine, the user obliged to issue double receipt during power interruption. In order to solve the problem, the government intervention needed in that the sustainable of the systems.

5. The contribution of each participant has significant role to success of the systems. There should be effective cooperation among them. All participants of the systems should develop mutual understanding and positive approach. Since they are operating in one country, their mode of thinking is required to gear

towards national development and cooperation. Without their active cooperation and participation, the purpose intended cannot realize. With this respect, the tax authority is required to strength the consultation forum. All the participants of the systems should play their constructive role towards cooperation and mutual understanding because it is advantageous for them.

6. Some business firms required to collect money in advance for service or goods before actual delivery of goods or services. The cash register machines do not accommodate such case only its function direct related with actual sales transactions either cash or credit basis. For this reason those business engaged in such kind of operation faced problem of implementation of the system. To address the problem, the tax office should study the case to provide practical solution.

5.4 Recommendation to Tax Authority, Tax office and Stakeholders

The objectives of the implementation of the information systems are to generate more and sustainable tax revenues on the one hand and to attain improved maintenance of records by the taxpayers. Common understanding and cooperation among the participants are the basic ingredients to realize good tax administration. The attitudes of all the participants (include taxpayers, Suppliers of sales register machines and Staffs of Tax office) are required to change. With this respect, they should develop mutual trust to each other. The valuable objective of building the nation can be realized only when all the participants play constructive role towards the success of the systems. The degree of trust and cooperation must develop among the participants In order to attain the desired objective of getting a country that covers its national expenses through the revenues collected from the national economy.

REFERENCES

1. African Journal of Business Management Vol. 4(11), pp. 2241-2246, 4 September, 2010 Available online at http://www.academicjournals.org/AJBMISSN 1993-8233 ©2010 Academic Journals up, 1994

2. Aibuma Publishing. Africa Journal of Business and Management (AJBUMA) the "Effectiveness of Electronic tax Registers in processing of value added tax return"
http:www.albuma.org/journal/Index.htm

3. Albright, HJ (2008). Principles of Taxation

4. Andraw Okello (2014). Revenue administration Advisor "East Africa Tax administration Reforms-recent trends and development."

5. Barrie Russell : Fiscal Altair department Revenue Administration "*Developing a Taxpayer compliance program "*international monetary fund. November 2010.

6. Bordens: KS and Abbolt BB 2005 : "Research Design and methods", A process Approach, MC Grow-Hill, New York

7. "Compliance Risk Management: Managing and Improving Tax Compliance", OECD, 2004.

8. Creswell. John W2007: "Research design Qualitative, Quantitative, and Mixed Methods Approaches." 2nd end. Sage Publication's London, UK

9. Creswell John W. 2009: "Research Design, Qualitative, Quantitative, and Mixed Methods Approaches." 3rd ed. Sage Publications, California USA FDRE 2008,

10. Dasgupta. Arindam and Dilp mookherjee (1998 :) "incentives and institutional Reforms in tax enforcement", oxford unigersi press New Dethi.

11. Engman M (2005). The Role of Automation in Trade Facilitation

12. Ethiopian Revenue and Customs Authority Establishment Proclamation No 587/2008, Federal Negasit Gajeta, 14th year No 44, Addis Ababa 14th July 2008

13.Framption Denmis (1993) "Practical Tax administration "Fiscal Publications

14. Fox P (2001). Automation: Crossing the Final Frontier. J. Autom., 21(2):200-223

15. Freetown, sterra Leone. "International Tax Dialogue Revenue Administration in Sub-saharan Africa" ITD comparative information series N01 2010.

16. Gunning JP (2007). Developments in Economic Theory in Relation to the Subjects of Public Finance

17. Guido S (2007). Community Revenue Collection System

18.Gutierrez N (2006). Issues in Revenue Administration, Tax Compliance,and Combating Corruption

19. Hollingum J (2005). Modular Automation Beats the Recession, J.Comput., 15 (2): 455-489.

20. Hollingum J (2007). Optimizing the Benefits of Automation through Design, J. Comput., 15 (2): 755-789

21.Income Tax Proclamation number 286/2002 of Federal Democratic Republic of Ethiopia,Negarit Gazette

22. Kevin Woodhey Tax administration Advisor IMF:" Introduction to compliance risk management." Narobi Kenya 3-7 2008.

23. Kochan A (2005). Prodel – Islands of Automation, J. Automa., 16, 4,199-233.

24. Leary. Lina 2004:, "the essential Guided to doing Research" ,sage Publications
London, Uk.

25. Malcolmg . Lane (march 2006): Professor Nead," computer science improving the efficiency of tax administration through the effective use of information technology."

26.Malcolm K. Sparrow, "Imposing Duties, Government's Changing Approach to Compliance", Greenwood Publishing Group

27.Muijs. Daniel 2004: " Doing Quantitative Research in Education", sage publications. London UK.

28.Obligatory use of sales registration machine, council of ministry regulation number 139/2002

29. Obligatory use of sales registration machine, Directive number 46/2002.

30.OECD 2004 :."Compliance Risk Management.", Audit case selection Method:

31.Plan Report (2014) Ethiopia Revenue and Customs Authority and LTO Office Annual Plan report plan department.

32.Plan Report (20013) Ethiopia Revenue and Customs Authority LTO Office Annual plan Report, plan department.

33.Plan Report (2012) Ethiopia Revenue and Customs Authority LTO Office Annual Plan report plan

34. Rawle Adimooluh. Commissioner of Audit Board of Inland Revenue; Large Tax payer units; "Functions, structure and Procedure", Government of Trinidad and to bago. department

35. Saunders M.Lew's P and Thornhill A 2003 "Research Methods for business Students" 3rd ed. Harlow, prentice hall, England.

36. Shome, parhasaralini (2002):"Tax administration and small taxpayer concepts, concerns and correctivenes" *I*MF Singapore Regional training Institute.

37. Shome, parthasarathi (2002): "Tax system and Development of a single tax system ". central Bank of srilanka Annversary lecture, occasional paper No. 43 center all for banking studies, Colombo.

38. Shivakumar S (2007). Advancing the Cause of Automation Technology,J. Automat. Comput.,2 (2): 33-55

39. Steverte, C. Eugene (1999). *"The impact of complexity in the tax code on individual and small business,"* NTA Form,National tax association No 33 August unlted stale, pp1,9-11.

40. Sykesville MD (2003). Tax Administration Computerization, J. Tax.Admin.,6: 233-267

41.Tames Sionon (1996/97) "The economics of taxation principles, policy and practice". Christopher Nobes. Premtice Hall New York London Toronto Sydney Tokyo Modrned Mexico City Mundy.

42. Thomas M. (2008). Public Finance: The Principle of Taxation.

43.Vasudevan R (2007). Changed Governance or Computerized Governance,

44. Ward M. Hussey and Donald C Lubick, *Basic World Tax Code and Commentary*, Harvard University, International Tax Program,1996.

Appendix A

St. Mary's University

School of Graduate Study

Questionnaire for Assessment of Tax administration by implementing automation in large tax payer branch office (ERCA)

(TO BE FILLED BY TAXPAYERS)

Dear respondent, the purpose of this questionnaire is to collect a data which will be used as an input for the Master's thesis for the award of MBA in accounting and finance from St.Mary's University ,Addis Ababa ,Ethiopia.

The data to be collected through questionnaire will be used for academic purpose only.

Instruction

- Writing your name is not important.
- You can choose the answer from the list by putting a <√> mark. Thank you in advance for your cooperation!!

General Information

1. Sex

Female ☐ Male ☐

2.Type of Business

Manufacturing ☐

Service giving ☐

Merchandizing ☐

Construction ☐

Other trade ☐

3. Age

Below 25 ☐ *Between 25- 35* ☐ *Above 35* ☐

4.Educational Level

Diploma ☐ *First Degree* ☐ *Above First Degree* ☐

S.NO	QUESTIONS	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	**2**	**3**	**4**	**5**
1	Do you agree all LTO Tax payer's have an obligation to use tax information system without any limitation?					
2	Do you agree Tax administration Office acting as a single window clearance point for all taxes?					
3	Do you agree that your organization uses sales register machines, E- taxing(Electronics filling of tax report , and reporting purchases on line based on the requirement of tax administration ?					
4	Do you agree that LTO have create awareness about the information systems which have been implemented by the LTO?					
5	Do you agree that LTO tax payers can collect their tax clearance certificate within reasonable time up on their demand?					
6	Do you agree with the appropriate service rendered by use of modernized information systems?					
7	Do you agree LTO suppliers of cash register machines that responds proper and timely maintenance and annual service as per rule and directive issued by ERCA?					

8	Do you agree LTO to select tax payer assessment, audit and investigation based on risk management by use of information system?					
9	Do you agree that your organization comfortable by being the user of the information systems ?					
10	Do you agree that Your organization become the user of the information system of LTO(ERCA) by obligation of law but not by willingness?					
11	Do you agree that LTO tax payer's have knowledgeable employees who can implement the information system of LTO?					
12	Do you agree that LTO Use e-filling system effectively to solve the individual tax cost problem?					
13	Do you agree that LTO utilized SIGTAS(standard integrated government tax administration system) effectively in tax collection, Audit, tax enforcement and investigation because all the problem of tax information is solved?					
14	Do you agree that the new information systems are provided for the tax payer because these are the					

	basic mechanism for maximizing tax compliance?					
15	Do you agree that service delivery by use of information system is not satisfactory because it is beyond the control of LTO?					

Thank you !!

Appendix B

St. Mary's University
School of Graduate Study

Questionnaire for Assessment of Tax administration by implementing automation in large tax payer branch office (ERCA)

(TO BE FILLED BY TAX ADMINSTRATOR STAFFS)

Dear respondent, the purpose of this questionnaire is to collect a data which will be used as input for the Master's thesis for the award of MBA in accounting and finance from St. Mary's University ,Addis Ababa ,Ethiopia.

The data to be collected through questionnaire will be used for academic purpose only.

Instruction

- Writing your name is not important.
- You can choose the answer from the list by putting a <√> mark.

Thank you in advance for your cooperation!!

General Information

1. Sex

Female ☐ Male ☐

2. Type of Processes/Departments you serve in:

Tax collection and assessment ☐

Customer Service ☐

Tax audit ☐

Tax law enforcement ☐

3. Age

Below 25 ☐ *Between 25- 35* ☐ *Above 35* ☐

4.Educational Level

Diploma ☐ *First Degree* ☐ *Above First Degree* ☐

S. No	QUESTIONS	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	**2**	**3**	**4**	**5**
1	Do you agree that LTO Tax payer's have a immediate respond to use tax modernization system?					
2	Do you agree (LTO) a Tax administration Office acting as a single window clearance point for all taxes?					
3	Do you think that all taxpayers have the awareness on LTO to administer the tax by modern information system ?					
4	Do you agree that LTO tax payers can collect their tax clearance certificate within reasonable time up on their demand?					
5	Do you agree that all tax payers uses sales register machines, E- taxing(Electronics filling of tax report), and reporting purchases on line based on the requirement of tax administration rules ?					
6	Do you agree with the appropriate service rendered by use of modernized information systems?					
7	Do you agree the suppliers of cash register machines that responds proper and timely					

	maintenance and annual service as per rule and directive issued by ERCA.?					
8	Do you agree LTO use to select tax payer assessment, tax audit and investigation based on risk management by use of information system?					
9	Do you agree that all information system the most useful as input for tax assessment, tax audit and tax enforcement mechanism?					
10	Do you agree that all organizations become the user of the information system of LTO(ERCA) by obligation of law but not by willingness?					
11	Do you agree that LTO tax payer's have knowledgeable employees who can implement the information system of LTO?					
12	Do you agree that LTO Use e-filling system effectively to solve the individual tax cost problem?					
13	Do you agree LTO utilized SIGTAS effectively in tax collection, Audit, enforcement and investigation because all the problem of tax information is solved?					

14	Do you agree that the new information systems are provided for the tax payer because these are the basic mechanism for tax compliance?					
15	Do you agree that service delivery by use of information system is not satisfactory because it is beyond the control of LTO?					
16	Do you agree that before or after implementing the tax automation system there is adequate training for both tax payer and tax administrator					
17	Do you agree that there are the main challenges in case of implementing tax automation tools exists in both tax payer and tax administrator?					
18	Do you agree that LTO have adequate infrastructure and resources to hand the problems faced by implementing the tax automation systems?					
19	Do you agree that all modern tax administration system have a legal requirement to enforce a taxpayer to use it accordingly ?					
20	Do you agree that the use of information system increases the tax revenues of LTO?					

Thank you !!